

**Nevada Test Site Oral History Project**  
**University of Nevada, Las Vegas**

**Interview with**  
**Robert Taft**

**August 5, 2004**  
**Las Vegas, Nevada**

Interview Conducted By  
Suzanne Becker

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Produced by:

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## Interview with Robert Taft

August 5, 2004 in Las Vegas, NV

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[00:00:00] Begin Track 1, Disk 1.

**Bob Taft:** The AEC [Atomic Energy Commission] was established in 1946, and I went to work for security at Los Alamos, and they selected 350 people from thirty thousand for this particular group of people. And one of the things they did that really didn't make any sense, they were much too selective and they went for much more qualified people than made any sense that eventually wound up being the guard force at Los Alamos. And our supervisors were all from the Massachusetts State Police.

**Suzanne Becker:** *In Los Alamos.*

No, from Massachusetts, and they brought them to Los Alamos to supervise this force. And they were not particularly well suited to work with that because they went and picked the smartest 350 people out of about thirty thousand that took the examination, and these people, a lot of them, weren't really capable of handling that sort of thing. So they had a rough few years.

I served in the horse patrol, in the jeep patrol. I flew in the air patrol in the airplanes. And then I messed around with various guard posts and stuff up there.

*And this was in Los Alamos?*

And that was from 1947 until 1952.

*OK. Can I stop you for a minute?*

Sure.

*What were you doing prior to that, before you went out there?*

Well, I went back to the farm in Iowa, which incidentally I just sold this year, a few months ago.

*So you're from Iowa.*

I'm originally from Iowa. I was there only about a year. My father and mother were alive, and my sister, then. And I went and took this test and took the job, and I wound up with forty-three years which I'll generally describe.

*Little did you know.*

And while we were at Los Alamos, a very strange thing happened. They gave all the people there in the guard force the Army General Classification Test, and they were going to use it to qualify them afterward and try to find a proper level to do it. And I scored 156 on this test, which is the highest they'd ever tested at the time. An unusual thing. And I have no idea how or why it was so high or that sort of thing, but that's the way it worked.

*You were obviously well suited for it.*

And in 1952, the Albuquerque Operations Office [ALOO] sent me to Enewetak. And the job was principally radiation safety. And I arrived two days after the Ivy/Mike shot, which was an eight megaton; the last one there and the eight megaton shot that they fired on the north end of the atoll.

*OK. So you were there for the testing during that—*

Well, not that time. I wasn't there for the testing in 1952, but I was there for nearly all the overseas testing afterward. I did not go to Christmas Island, where the testing was done there, but I did nearly all of it at Enewetak and Bikini.

*So how was that? What were your impressions of it then?*

Well, I didn't think it was all that bad and I still don't. But we displaced all those people at the time and moved them to other places and took them off of this island and really tore their atolls all to pieces. And then they eventually brought some of them back now. And I don't care to

particularly get involved in the righteousness of removing those people and doing all these things. As a matter of fact, we exposed a lot of those people rather significantly from the island we *moved* them to and not from where *we* were.

*So there was more exposure from the testing on the islands where they were relocated to?*

Well, there was a very high exposure from one test at Bikini. They got hit with one test at Bikini [00:05:00] which caused us to move them all again. And I wound up doing a bunch of looking at the exposures and doing the things with these people, and also going into their islands after they had been taken away. And we wound up for one phase, we caught a pig that was left there and lived and brought it back, and another gentleman who just died here, oh, about a month ago, named Henry Slacks. He took this pig and took it back to the United States, where they did a bunch of things with it. And it lived on one of the contaminated islands. So they did that sort of thing.

*To check for contamination and that kind of thing?*

And I didn't think that the contamination there was enough to cause terrible problems, although it is *many*, many times what's allowed today. My personal exposures during this period of time—I was looking at them the other day and only about half of my total exposures are listed, because for one reason or another, back in the old days, some of it was lost. But my total exposure was between 20 and 30 R, and my real lifetime exposure is probably on the order of 40 to 50 R, which is quite high by the standards you look at today. And we were then limiting ourselves to 15 R per year.

*So you were significantly over.*

But 15 R per year, and I never went over the quarterly or the yearly limits, but I worked at those levels for quite a period of time. And I'm reasonably sure that it has had no great effect on my life. The argument is made now that that's clearly enough to affect some people.

*Right. Yeah, there are definitely reports where people say they are sick.*

And I try not to sound to pro one way or another on this, because I have no intention of ever filing any claims or doing anything. That's a little crazy, as old as I am now, to believe that it has ever hurt me, even though some people—there aren't many people left alive in the world today with as high exposures as I have had. But that doesn't mean anything in particular. That just means that they all got old and died.

*Right. Or you have very good genetics.*

Well, that's hard to say.

*So you were out there. You got out there right after Mike.*

Right after Ivy/Mike. I took over the radiation function and I wound up doing surveys of the island and the atoll, outfitting people who had to go collect samples, and I collected samples. I supervised the collection of about twenty tons of debris that came off of the Ivy/Mike shot, and we shipped it back to—it went back to Livermore, and Dr. [Glenn T.] Seaborg, which I'm sure you've heard of, who later became the head of the Atomic Energy Commission. He arranged to separate from this stuff we sent back, he separated and named the element lawrencium, and this is up past the hundred mark on the chart, which they've gone well beyond today with these various artificial ones. But that's the first time they'd found lawrencium, and he found it and named it from this debris.

*And what is that exactly?*

Oh, it's just a heavy element, is all, and it's not within my capability to understand what it is and how it works. But it had never been produced, as far as they know, and so he found it and got it from that.

**[00:10:00]** And I stayed at Enewetak and Bikini off and on from 1952 to 1957, with only about 20 percent of the time spent in the States in between various periods of time from four to—my longest stay was nine months. But I'd come back for a month or so and then go back out. And so I spent a lot of time at Enewetak and Bikini.

*So you went out there primarily as—*

Radiation safety.

*Right. And cleanup.*

But I also wound up, in the later years of that, being the project engineer on some islands, if we didn't happen to have one out there at the time (an engineer). So we lived in aluminum buildings at Enewetak. We lived in tents at Bikini.

*Wow.*

Well, they were nice tents, though. It wasn't a bad way of living. In the surveys, we mostly used helicopters, but sometimes boats. They were the early days of the helicopters, and I wound up in several helicopter incidents and accidents, but none of them hurt me or none of them were fatal.

*Yeah? What were some of those?*

Well, they just had engine failure and we went in, that's all.

*A little frightening, I would imagine.*

But the helicopters then weren't as reliable as they are today.

*Right.*



And in 1957, I was promoted to the job of engineer at the Los Angeles branch office [AEC] in California. And mostly we overviewed the management of H&N [Holmes and Narver], which were the architect/engineers for much of the work of the test site, but they also were the managers of Enewetak during those years.

*Right. And is that Holmes and Narver?*

That's Holmes and Narver.

In 1962, I came back to the Nevada office, and I moved into an old office down on Main Street. It's a little, bitty, small building down on Main Street.

*Is it still there?*

Well, I think the building might be still there. I haven't looked in years. But we were only there for a few years. And I was working for the Test Planning Branch for the project office. And the major work was we wrote the authorization for NTS [Nevada Test Site] programs. We provided the funding for the programs. And we controlled the program size and cost, or tried to. And mostly we did well.

I began at that time working with NTS Planning Board, which is a board of people, at that time chaired by Dr. Alvin C. Graves. Vice chair was Roger Batzel from Livermore. And they were the people who looked, as an advisory role, to the manager of Nevada, who at that time wasn't the same level as the manager is now or was the last ten or twenty years. And each of these people were the head of their test group that did tests at the test site. But here they were sitting as an advisory group to the manager of NVOO, to help him tell how to balance the program; and how to put the thing together so that they could do most of all of what they want to [00:15:00] do and still live within the functions and the money that was appropriated on any individual year and that sort of thing. And they also looked into safety studies, and they did a lot

of things. It was a very difficult thing to do because these people did not in any way feel they were subservient to the government or anybody else. They were very high level people in their laboratories. They did a really marvelous job. There was a considerable amount of dissertation that went on during the meetings, but when they all finished.... Then I wound up from about that time on for years writing the minutes to these meetings, and managed to get them to agree to all the stuff. I managed to sort everything out and get all the things they agreed on and put it together. And I did that for a number of years. And I later became executive secretary of that planning board when I became a division director.

*So essentially, during that time, that board advised the test site or the managers of the different tests.*

Advised the manager of the test site. And because of the unusual way that I got—the executive secretary at that time was a guy named Bob Miller. He's a very old guy. I think he's down to his last year or so in life, and he lives in Oklahoma. His wife died a year or so ago. And I worked for him for a lot of years. He was a very interesting guy and turned out to be a fairly controversial guy in this office.

*How so?*

Well, he pushed his weight around and he had the ear of the manager, and a lot of people didn't—not everyone liked him, but I think he overall did a pretty good job. But he did well for a bunch of years, and then he quit and finally wound up working for Holmes and Narver. And then he wound up working for other companies in Oklahoma.

*Doing similar things?*

No, no, working on regular engineering jobs and things.

To give you an idea of how much I thought of Al Graves, who was the chairman of this board, he's one of the few people that I have a portrait of in my office. Right now, there's something in front of it, but I have a portrait of him. I showed you a couple of pictures of him that were there with Jim Reeves. He was just a marvelous person and I wound up thinking a lot of him. During all the years of his life, I wound up fairly close in working with him and his things.

After Graves, Batzel chaired the planning board, and after Batzel, it was a guy named Bill Ogle, which is the guy that took the job that Graves had before he died. William Ogle. He's dead now, too. He died up in Alaska. He was married to the daughter of the guy [who owned Reeve Aleutian Airways]—she's still alive, and she's the principal owner of Reeve Aleutian Airways now. And I visited her when I came back to Alaska from the Aleutians, just to stop and say hello. Well, I flew in on one of her charter airplanes.

In 1963, in August, the Limited Test Ban Treaty came to be. And that was the treaty that [00:20:00] limited everything we had been doing, partly atmospheric, for all the prior years—[it] all went underground. And it was in August they passed it, and effective in November, all tests went underground.

In 1966, that's four years later, I became chief of the Test Planning Branch. And I supervised all of the branch effort and continued the planning board support.

*Can I ask a quick question? I'm wondering how your job changed, or if it did at all, with the Limited Test Ban Treaty, when things went from atmospheric to underground.*

It didn't change a great deal. It became more difficult because we went onto testing year round under those kind of circumstances, and we had a yearly program to manage and fund. It became more difficult to live with the funds that we had in any particular year than it had during the

periods that we got all the money and DoD [Department of Defense] and AEC got together and did a test and then quit for a while. They were only testing about a third of any year back in those days.

*So you were able to get money and then put that into testing, whereas when it went underground, it was more continuous?*

It was more continuous and it became a different type of management problem, but it wasn't that much more difficult. It was a lot more difficult early on for the people doing the testing, the laboratories. They'd done a few underground tests and they were learning how to diagnose them and how to get things from them. But they eventually wound up being able to get as much from that as they did the others.

Well, I was only two years the chief of that branch, and then in 1968 I became the director of Plans Division, which is the division—this was one of the branches. And at that time, I became the executive secretary of the planning board. And the director of the Plans Division, the people who worked for me had wound up doing all the things I'd done in all those years. But in addition to that, we had the Plowshare programs and all the other various programs that the NTS—what I'd been involved in before.

*What did you think of the Plowshare programs? What was your impression of that?*

Well, it was a very interesting program. They did a few atmospheric nuclear tests in the early days, and they did underground tests at various places, including southern New Mexico and one in northern Nevada, one in northern New Mexico, a gas stimulation thing. And they did a bunch of things and they looked all right, but it became fairly obvious that they weren't going to use nuclear weapons at this point in our life; at least, they weren't going to use nuclear explosives to

produce gas and things like that, even if they worked. And it became consistent with the general feelings of the world over the effects of nuclear debris and nuclear things on people.

*They were sort of gauging, in general, the populations' attitudes toward it at that time?*

Well, the whole world's attitude towards exposure and doing things related to nuclear had changed. You have only lived long enough, I believe, to see it since it's become a very restrictive thing. *It became* restrictive during all these years that I was working. And I think that by and [00:25:00] large, it was probably the right thing to do, but I'm not an adamant believer in everything being as safe as we are today. I support it, but I'm not sure it was all entirely necessary.

*You think we're over-precautioned right now?*

Well, maybe we aren't, too, you know. Maybe you'll have to live a few hundred years to know. Not *live* that long, but you'll have to put a hundred years or so of things behind you to know whether there was any real *effects* of this. Most of the effects that you hear being blasted by the radio and by the politicians and everybody trying to either promote, or the other case, the ones that want to stop all the things we're doing now, I figure that *most* of those are just pushing political positions that are not particularly related to reality. But again, it's not my business to say anymore.

In 1975, AEC became ERDA, Energy Research and Development Administration [Agency] for two years. And two years later, they became the Department of Energy [DOE]. And ERDA was an interesting experiment, as far as I could tell. By then I was going to Washington and doing a lot of things, and I got to be back there while all the change was taking place. And since it didn't last very long, I believe that ERDA was not the sensible solution. DOE was the sensible solution, and eventually it became that way.

*What was ERDA like for those two years?*

Oh, it was pretty much just renaming the AEC but slipping a few other jobs into it. In many ways, it wasn't much different, but they tried to bring all the new things that had come about by limiting testing and the way they were doing business, and it became a more complicated way of running the business. And ERDA never really became a very formidable agency, just because it didn't have time to grow and become one. And as I said, two years later the Department of Energy came to be.

And in 1977, I became assistant manager for Plans and Budgets. And that was the first super grade job. I think that was a grade 16 and that was a super grade job before they had the SESs [Senior Executive Service]. Super grades now are SESs, but back in the old days, they used to have all of the people in government service were somewhere between GS-1 and GS-18. And GS-16 was only two from the top, as high as you could go in the professional services of the government. At that time, I had working for me the Plans Division, which is what I'd had before, which is all the planning business. We did all the authorizations and all the programs, [and] the Budget Division, which is the one that provided the funds that the Planning Division wound up authorizing and putting together. And at that time, I also got E&C Division.

*And what is that?*

That was Engineering and Construction Division. It was an engineering division. And also I had the Peaceful Application Division, which was the division that did Plowshare. I also had the Classification Office, for no other reason than I messed around with classification half **[00:30:00]** my life and nobody else wanted the job—or you couldn't get anybody else to take it.

In 1979, I converted to SES, which is an SES, Level 4. In the senior executive service, there's levels one through six.

*So you were pretty up there.*

Yeah. It's the same idea and the same money and everything about it is *generally* the same as the grade 16 was, the level 4.

*But they just call it something—*

Well, you could've kept the grade 16 if you really wanted to, but I think it would have been limiting on your career. They were trying very hard to get rid of the GS super grades, as they called them.

In 1981, I became assistant manager for Energy and Conservation. And I wound up with the Geothermal Division; I handed the geopressure program, which was looking for gas in the high pressure water in the high pressure programs of the Gulf; Waste Isolation Division; I had decon and decommissioning; fossil, solar, and all the energy forms. And at that time, I had an office that worked for me in Houston, Texas, as well as the one at the test site. That was the office of a couple of guys, engineers who we had on the rigs, both offshore and onshore down there, looking at the high pressure gas and water. And there actually is still one or two of the wells that we had that are still producing down there.

*I'm sorry, what area was this?*

Near Houston. They were in Texas and Louisiana, which is the only place you have the high pressure gas in this hemisphere.

*And they're still down there?*

Well, it had never been produced before, because you're getting it out of water at pressures of about 5,000 psi, pounds per square inch, and depths of from eighteen thousand down to twenty-five thousand feet. And it was a horrible thing. We drilled the holes and produced all the wells. Up until that time, the main thing that ever happened, whenever they drilled into this thing, was

to figure out how to plug it off as quick as they could to keep it from blowing up in their face.

And we were the first ones to ever try to produce the thing and deal with it. And it was a tough, tough deal. And it has not turned out to be a good source of energy, but in doing something like a dozen of the holes, we wound up with a couple of them that did produce enough over a long period of time to be capable. Because the prices of gas went up and that sort of thing.

*But we've not ever done much with that, have we?*

No, it's all over with. And they try very hard to stay away from the geopressure of water, which has a tremendous amount of gas in it. But it's terrible stuff to produce, and you have to build a very good well to deal with it.

In 1984, I became the assistant manager for Engineering and Safety. I wound up having a *lot* of divisions working for me and about seventy-five employees. I had the Engineering and Energy Management Division, which is the outfit that, in addition to engineering things and stuff at the test site, they did all of the plant projects—where if you build a [00:35:00] building or something, they engineered it and let a contract for it. We had all of those. Health Physics Division, which is the Radiation Safety Division. And Management Evaluation Division, which had mostly the things that had been in the Plans Division and some of that sort of thing. They moved the Budget Division at that particular time, and Plans became Management Evaluation. Safety and Health Division. Waste Management Project Office. That was the one that worked on waste management projects around the country.

In 1987, I was detailed to the manager as assistant manager for science. I was the only person in the job, and it was just a holding thing till they could figure out how to run me off. I had run into enough in the course of my entire life and one thing or another, as you'd expect. I had a lot of friends and a few enemies. And, you know, as administrations changed and that sort



of thing, sometimes people who were your friends became your enemies, and sometimes your enemies were more political than real. But it was that sort of thing—and it was time I got out of the business. I had about forty years of service before then. And so that gives you an idea of—and I retired on February 2, 1988. And I have done some consulting since then, but not more than the first three or four years. And I worked for several companies.

*Doing consulting locally?*

Well, I went back to Johnston Island, and I moved around the world a little for them and did things. I hadn't mentioned, but Johnston Island, we'd been managing that for a bunch of years, since they did some high altitude tests there and stuff. That's about all. That's a rough idea of where I've been and gone. And I'm having a tough time remembering the details of all of this sort of thing like I used to. Like when I used to have to go give a speech on that deal of the history of the weapons program and talk about that whole thing in one set. Well, I could not do that anymore. In the first place, I don't remember it, and I don't have the way of finding out. Well, it's not of interest to me anymore. And I'm far past being terribly directly interested in what's going on now. I'm getting too old.

*Right. Well, it seems that it's changed a great deal, just in the past ten, fifteen years.*

Oh, it's changed a lot. Well, that's enough on the record.

*Well, I can stop this at any time, too.*

No, no, no, that's all right. I think that the Department of Energy isn't as exciting nor as useful as it once was. And I may be overstating the case when I say that, but most of the people—they use a lot of people to do very little work nowadays.

*This seems to be a very common thread in many branches of government.*

Well, that's about what I have.

*Well, if you don't mind, I have a couple of questions that I'd like to go back and just get a little more from you on.*

**[00:40:00]** Sure.

*First of all, I'm interested in going all the way back to when you were working security for Los Alamos. I'm just wondering, and you touched on it a little bit, if I could find out a little bit more about what were you doing prior to that? You said you were in Iowa.*

Well, I was on the farm. I came out of the Navy and back to the farm, and I worked on the farm for almost a year, and that's it.

*OK. And then you found out about—?*

Well, I found out about this, and I went and took the examination and became one of the 330 selected out of thirty thousand. [laughter] And it turned out what we got was entirely different than what we *thought* we were going to get out of that deal. It was a grossly oversold program that never came to pass.

*What initially interested you in it that made you—?*

I don't know. It was just doing something different. I went through and became an officer in the Navy. And I came out of the Navy and went back to the farm. Working on a farm with my father and working for other farmers around there wasn't particularly—didn't seem very satisfying to me, so when I saw this examination—and [when] they went through the spiel they went through for taking the examination, it looked like a good deal. So I went and took the examination, passed it, and wound up going to work for them.

*And how was it different once you got out there?*

Well, it never became the thing that they had mentioned when they set the thing up. It became a guard force, and while I was lucky enough to have a lot of interesting jobs in the guard force,

like outer perimeter patrol and horse patrol and air patrol and all those things, I didn't have to put up with the most boring part of the thing. So I worked for more years than kind of made sense.

But then the other stuff started happening and I just followed the drift within the AEC. And it all worked out very well. I've wound up briefing the Secretary of Energy. I've briefed congressional—

*Yeah, you mentioned earlier that you spent some time in Washington as well?*

Well, I used to go to Washington as often as once a week.

*What were you doing?*

Oh, briefing people, and picking up information, and then briefing on things. Once you get in to become a senior executive in government, the chances are you're going to go to Washington once a month or more, and be there as they pull your strings. I mean there's not a lot of people above you, and they have a lot of say-so.

*Right. I guess the other question I had was if you could talk a little bit more about your experiences. One, you obviously saw a lot of atmosphere tests, and I was wondering, literally, what your impressions were. Just looking at pictures of them and hearing people describe them, it sounds like a very amazing and intense experience.*

Well, they were amazing things. And they were interesting, but we wound up doing enough of them overseas and other things that they didn't—generally speaking, you weren't overwhelmed by it. Then you had work to do and you went and did it.

*So it just became sort of run-of-the-mill.*

Well, it never was totally run-of-the-mill during the atmospheric days because there were difficulties. And the later years of the atmospheric program, it was under fairly heavy attack by the people who not only wanted it to go underground but wanted to get rid of testing altogether.

And you see all of that today. It's still happening, of course. And I guess I didn't subscribe to [00:45:00] that. I never even thought about it very seriously because I was a part of the program and went with it. And I generally wound up approving of most of it in my mind, and I felt that it was sensible. I also think it was sensible to go underground, and I think it's sensible to start peeling back and maybe doing less. I'm *not* so sure it makes sense to get out of the business, but that's way past my time for that sort of thing to worry about.

*Sure. I'm also wondering if you could talk a little bit more about Amchitka. You mentioned that—*

Well, they did a high yield underground at Amchitka, about five megatons, and some others. And I didn't go up there for those, but I did go up there during the cleanup afterward. And I was heavily involved in them, but I did not go up there during the tests.

*What was the cleanup like? What was that process?*

It was *not* cleanup the way you'd think of it here because it's an island which no one was living on at that time. And there are people living there now, but not many, and I'm not sure what they're doing there now. I think it's probably something to do with some of the DoD programs, to make sure that they see what goes on in the north part of the world. I believe it's all classified programs but I'm not sure anymore. I'm not *up* on it anymore and don't care to. I wouldn't go back again, but I did think it was fairly interesting. We flew a little twin-engine plane out there and landed—we tried to land on Amchitka and couldn't get in. We were flying twenty feet over the runway and you couldn't see a thing. And of course, there was no one there, so you didn't have anything—you were just—and so we went on out farther in the Aleutians and stayed out there till it cleared up on Amchitka. There probably are not many places in the world that the weather's as bad as it is on Amchitka. It's just terrible. And it was an area where there were quite

a lot of—we had quite a military operation out there and there were still all the old military bunkers all over the island. It was interesting.

*How long did that cleanup operation last?*

Oh, what I went up for was just mainly to get stuff out of the buildings and try to get it ready to give it back. They didn't have a cleanup in a sense of cleaning up radioactive debris or anything like that. Of course, everything up there was underground and there wasn't a lot of—and it rains enough up there that anything that's on the surface isn't going to be around for long. It rains *incredibly* much up there. Well, the weather is invented up there, I think, anyway you put it.

*So essentially it'd be very different from what it sounds like Enewetak was.*

Oh, Enewetak was a whole different—that was a coral atoll of islands, all made of coral. Bikini was the same thing, only it had a different shape and about 180 miles away. And we lived in what people would think was primitive then; we thought it was pretty good. We were living in aluminum dormitories, and on Bikini we were living in tents. The tents were pretty nice ones.

*And it's beautiful out there.*

Oh, it was, but there were no women out there. The only time I ever saw women is if I would become the escort of a USO show or something that came in. But that was the only one we'd ever see in four, five, six months.

*Wow. Yeah, you guys were pretty isolated from everything.*

**[00:50:00]** Oh, yeah, it was a whole different way of life. Like everything else, as it started to change and we got out of that business, the “antis” generally took over everything, and they were always against what we were doing anyway.

*Right. Were you involved at all in the cleanup that happened in the late seventies out at Enewetak? I know there was a—*

I went out and looked at it and did a few things like that, but I wasn't heavily involved, and that was done by—the Department of Defense did it, but we were overseeing it. In fact, one of the guys who was kind of our head guy on it, a guy named Roger Ray, he was another assistant manager when I was here. And he was out there then running that. He's gone blind, and he lives in Washington now. Or he's nearly blind.

*You mentioned earlier that so much had happened out there, and I know that they've since—do you think that it's a habitable environment at this point?*

Oh, I don't think there's anything wrong with living out there now. The crater where the Mike shot was is over a mile across. It was a crater over a mile across and two hundred feet deep. So these are really terrible things that went on. And they did fifteen to seventeen megatons on one place in Bikini and got about a mile-and-a-quarter crater out of that one. And there was a bunch of them that were seven or eight on different places. Some of them were done on barges in the same crater they'd already done, so they didn't make any new craters. But they essentially got rid of all of the—everything that grew anywhere on any of the islands was just totally torn bare. That's all come back now, of course. And there are people that argue that it'll never be safe to live there, but I don't happen to agree to that. I believe that it's—the average life span of the people that were there before we moved them off has more than doubled since then, without regard to whatever might happen from effects. You know, it's one thing to argue that there are effects, and there may very *well* be some effects. But because of what we do and the way the world operates, life was relatively short on those atolls for the people who lived there before we got there. Because they lived an incredibly primitive lifestyle. They had no medicine, no nothing. I have an old way of looking at this, so it probably doesn't agree with most what everybody thinks today. I'm one of the few people that probably have as much radiation exposure as the

people who got exposed downwind when they shot the bomb at Bikini and hit the place where they were, and it hasn't had any gross effect on me—except I'm getting awful forgetful as I get close to eighty. I think that would've happened anyway. And I don't know of anything wrong that's going to make me die in the next year or two. But the problems of age are beginning to get there pretty bad. I can't remember anything like I used to.

*Sure. It's just a fact of living.*

Well, sure. I mean I don't blame it onto anything that I've done or that sort of thing. It's just the way age is treating me.

*Have you known people who have gotten ill because of some of the things that they were involved in, or at least they claim to be?*

**[00:55:00]** Well, I knew some people that got over 100 R at Los Alamos in a thing or two, and one of them died. I've known a couple of people who died from radiation things that happened up there. And Al Graves, a lot of people thought his life was probably shortened by the fact that he was in a thing where they had a critical mass that they were messing with on a table and it got critical when it shouldn't have. And they all got—oh, some of them got 80 R, some of them got about 100, and they got up there to half-lethal doses, you know. And a lot of people thought it might have shortened his life, but he still lived to be seventy. And a lot of people don't make that from regular. And that's about all I can think of at the time.

*Baneberry. Were you involved in that at all?*

Well, I was involved, but I wasn't out there. But I sat for untold hours while they were rehashing it and messing with it and one thing and another. The guy who had more to do with that than anybody else probably was the test group director, and that was Charlie Williams, who later became assistant manager here and manager up in Idaho. And he was involved in Baneberry a

lot. Baneberry was a miserable thing and it caused a lot of problems, but I don't think it hurt many people. It was a thing that happened after we had quit allowing that sort of thing to happen, and so it caused a lot of problems. But if you ever went back to full yield underground testing, sooner or later you'd probably have something like Baneberry happen, even though you tried very hard not to.

*What was your take on why it happened?*

Oh, they finally found out that it had some of the things in the stemming, and putting the thing together wasn't quite as good as they had hoped it was. It just vented, is all there was to it. And they went to a little safer levels after that, and buried deeper, and were more careful. But it wasn't something, I think, that could've been predicted at the time.

*So you've been involved in a lot of the safety measures over the years and implementing, different safety procedures. How has that evolved? What types of changes have you seen?*

Well, there's a lot of difference between what you lived with in the atmospheric days and what you lived in afterward. And the level of exposure went down from, originally in the test program, as high as 15 R per year down to 5, and then down to 3. And now I still think that under—I don't know what it is anymore because I don't pay any attention, but it's probably still—you try to live with a few hundred mR [milliroentgen] at the maximum, even if you're working with the nuclear stuff. I think you're allowed up to 3 R per year or something like that.

*It's 3 or 5, I think.*

Nobody's even getting close to it anymore.

*Right. It's all changed. The way we do everything has changed.*

You couldn't have *lived* with that during the Enewetak and the Bikini programs in the old days.

**[01:00:00]** And you were very limited. It was very difficult to do them within the limits we had.



And there's a lot of people—well, there's no doubt that there were people who lived out there who were exposed a moderate amount, probably half what I was or something, when they quit. And then eventually—everyone believes there's got to be some reason for something happening. If you had exposures that were relatively high and five, ten years later you get sick or you get cancer, you'd always wonder if it had anything to do with it. And you're never *absolutely* sure that it *didn't*, because one of the things about this is that it doesn't affect every person the same. You can argue that it might *never* affect *me* but it might affect you. And so that's one of the reasons for bringing the levels down and keeping them down and living with the absolute minimum all the time. There isn't any doubt that's a good idea. Because the one thing that's clear is that it *does* affect some people differently, but *most* of the people who think that they got something from—just life was going to be that way for them anyway.

*So possibly different people are just more genetically geared to—*

Geared to it. There's no doubt about it.

*It's going to impact different people differently because of their genetics, is that correct?*

That's true. And you'll never really know, in many cases.

*Right. Yeah. Actually, I just want to pause here and switch out the discs. We're getting close to the end of this one.*

OK, that's fine.

*Let me just do that real quickly—*

**[01:02:14]** End Track 2, Disc 1.

**[00:00:00]** Begin Track 2, Disc 2.

*[Discussing Yucca Mountain Repository]*

While I was working for the Department of Energy (that was under me at the time), and the guy who was responsible for it was under me, I spent a lot of time on that. I don't plan to talk a lot about, and it's something I absolutely will not discuss with the politicians and otherwise because it's all changed since then, and my opinion as it relates to how the waste situation ought to work and how the Nevada people ought to feel about it is. I think that the level of sensitivity that we see today to it is a lot a higher than is necessary. By the same token, I don't see why any particular state would *want* it to happen. But one of the things they have to face, I don't think there's any chance in the world that we will ever go to reprocessing of the reactor fuel in this country. So eventually it's going to have to be disposed of in some fashion. I don't *know* of anywhere on Earth that it's probably easier or better to do than this one. But I can understand why the politicians here don't want it. I understood that while it was my business to run it. But one of the things that has to be faced, and *no* one will face politically nowadays, is what do you do if you *don't* do it, or something like it? Sooner or later, they're going to have find a place to put this stuff, or else they're going to have to reprocess it.

*We don't really have a way to dispose of it other than to do what we're doing up there right now.*

Well, there's people want to talk about running it into space. Can you imagine running one of these into space and having something go wrong with the thing? There's no way in the world we're going to do anything like that. And you aren't going to dump it in the ocean. So eventually it has to be taken care of somewhere. My argument is the simpleminded way, is there a better place on Earth? And I don't know of anywhere else. I don't know of any place that probably any better, and most of the ones they'll try will be worse. So I don't think there's any hope, but eventually that'll have to happen. It may or may not happen at Yucca Mountain. My guess is that it probably will. And everybody wants to put it in a political system where it won't happen on

their watch. If it were left up to me and I were running this state, I would find a way to live with it but get a lot of money out of it, and I don't understand why that's not the case. But I personally don't particularly want to discuss the thing, even, because it's been so long out of *my* hands, but we were really mixed up in it heavily early on.

*So this has been going on for quite some time.*

Oh, twenty years or so. But eventually there will have to be a solution.

*People talk about one of the solutions is for it just staying put where it is, everybody just takes care of their own.*

It can't. It *can't* stay there. Oh, there's no way of leaving it set in the reactor pools or somewhere like that. It can't stay there forever because those are going to deteriorate.

*Right.*

[Sound of papers rustling.]

*Ah, pictures.*

[Showing photograph] There's the Ivy/King shot. You can have that one. [Showing another photograph] This one I can't—as terrible as it may be, I can't even remember her name. She **[00:05:00]** wound up learning to hate me and I wouldn't—she was an assistant secretary of energy for nuclear waste, and this is her, and this guy is with her, and this guy is with her. The rest of them are guys from the test site. This was my boss. This was Tom Clark. And there's Pete Fitzsimmons right there. And that's me. And this is the guy that runs REECo RADSAFE.

*When was this from?*

Oh, just during when she was visiting us out here. It was about this visit where she became one of my enemies that kept me from lasting forever, but I shouldn't have lasted any longer than I did anyway.

*You don't remember her name offhand?*

Oh, not at this moment. It doesn't matter. And this is the Romeo test at Bikini [showing another photograph]. Eleven megatons. You can have that. I don't need these things any longer.

*Wow. Did you get to see that one?*

Oh, yeah.

*What was that like?*

I probably saw it from Enewetak to Bikini. Well, you can see them all the way to Japan. In the dark side, the flash. And they were incredible things, there's no doubt about it.

*They just look so powerful, and to think about it is amazing.*

Yeah, they wound up—I'm not sure that they even have any—I stay away from it. I don't know what's in the stockpile anymore. But I think that we have smaller stuff. We went away from having the big stuff in the stockpile. The first big thermonuclear, the eight-megaton Mike, they developed a weapon out of that that only the B-36 could carry. And after that, now they got them pretty small. Very small.

*Yeah. I was actually really amazed at how small they were.*

Have you been to the museum in Albuquerque where you can see them?

*I haven't been there, but I was out at the test site, where they had, not the actual device but very similar to what the actual device would look like and, amazing that a crater—*

Well, one like this would make a more than a mile crater on the ground. That's a scary world.

Now, the biggest one we ever tested was either fifteen or seventeen megatons. The Russians tested on that was slightly over fifty, I think. I'm not sure whether there was an air burst. There might've been. But it didn't make any sense. Getting bigger eventually didn't make any sense.

Anything in the megaton range would take out most of Los Angeles. It's a good idea not to use them. It's probably not a good idea to get rid of them all.

*It's a Catch-22 almost. What do you think the future of the test site is out here, at the juncture that we're at?*

I don't know. I think that there's a fair probability that Yucca Mountain will eventually come to pass. There's a lot of things you could *do* out at the test site, and I think if you decided that you [00:10:00] were never going to go back to underground testing, there's all kinds of things that could be done out there that you need to get away from society. But *I* don't know what you can do anymore and I don't even want to speculate.

*You mentioned a couple times earlier protesters, and obviously you probably dealt with protesters when you were at Los Alamos. What do you think about that?*

We never had them up there in the old days. Something I haven't even mentioned, and I guess it's a good idea, during my last few years, while I was working here and for two or three years afterwards while I was working for Desert Research Institute [DRI] of the university system, I was the DOE man that went around and talked to all the people in California and Nevada and Arizona. Whenever you had a town meeting, you went and had this sort of thing. So I wound up being the person that went and discussed the test program and told them what's going on. And I did that for a number of years. One of the things in that cartoon in there is that I went down and did this for a bunch of people down in Arizona, and there was a Catholic priest running the place, and he blessed me when it was over. He didn't bless anybody else. And they never got over kidding around about it was possible to even have all kinds of strange things happen to you. But I wound up being the person that went and talked to a lot of people who were both supportive and a lot of people who were hostile. And since that was a thing that I did rather well at one time

in my life, why, I knew a lot of it and they kept me at it after I'd retired, a little bit. I didn't get much out of that. I did it very inexpensively.

*So you were sort of a—I guess like a point person.*

Yeah, well, I was the kind of person that knew a lot about a lot of things, but I was never—I've seen a lot of nuclear weapons of every kind and in every way you could think of, but I'm not a scientist in the sense of a nuclear weapons scientist. Although I guess—I believe I could build a bomb now, if it had to be, because you can't be around them that long and not be able to. The biggest problem is the fact that the memory loss thing starts to happen, and there's no doubt about it happening now, to some extent, and I think it happens to everybody when they get around eighty.

*And before.*

Well, it's been happening now for probably seven, eight years. It's not an Alzheimer's type of thing, but it's just the fact that the thing doesn't hold together as well as it used to.

*So you spent a lot of time talking to various people about what was going on at the test site, right?*

Mostly we talked about the stuff—I told them about what things we were doing to keep things contained. For a long time they ran a program of having these—usually schoolteachers or various influential people in certain ways off the test site would run a monitoring station [Community Environmental Monitoring Program, CEMP]. They ran them for the Desert Research Institute, and they could see anything that ever came out there for many of [00:15:00] the last few years. And so we'd go to where they were every year or two and then go to other places less often. If you wanted to get in to where there was a lot of people that were anti and got into difficulty and people mad at you, the easiest place to do it was California. And I got into

rather serious trouble a couple of times, arguing with people in the higher country of California. They have a whole different way of looking at it. Their political way of looking at this sort of thing is entirely different than those of us who grew up with it.

*Do you think that's a result of, I guess, either not growing up with it and not quite understanding the era, or is it just different?*

No, it's just the way people are.

*What they believe and what they don't believe?*

Well, how you believe in politics and that sort of thing is different all over the United States. And right now, for whatever reason, people are taking it upon themselves to be very much for or very much against anything, and you don't have a big unaccounted-for middle class anymore. It's different.

*Right. It's very polarized right now.*

And I don't understand why.

*Did you spend a lot of time at the test site?*

Not a terrible amount. I haven't spent a lot of time at the test site since the atmospheric days. And I spent most of my time, once I became a division director and above, here [Las Vegas]. Only time I went out to do something was like when I went to Amchitka when we were closing it out and things like that. And I got to do that just because I had a bunch of my friends going up there. No, I didn't go to the test site a lot after the atmospheric days. I might go out once a month or everything; I was involved in the test site heavily, but I wasn't involved in the same way that I was in the old days.

*Which makes me think of something that you said a little bit earlier on that. I don't know that it's related, but you mentioned that as the different administrations came to power or would take office, that would impact your job and what you did.*

Oh, well, always, because every administration looks at nuclear weapon testing differently. And in the old days, most everybody looked at it from a pro standpoint, but slightly differently. But once the thing went underground and once things have happened since then, the antis and the pros and that sort of thing became more obvious. And I guess I don't understand that because I wouldn't understand it, having grown up the whole lifetime with the thing.

*When did that shift sort of occur? You said it really changed when things went underground.*

Well, it started after that, but it started probably—oh, it probably didn't start going as polarized as it is now until early eighties.

*And that was the height of the antinuclear movement, so to speak, it seemed like.*

Well, that's true. Well, it was antinuclear, but it was anti a lot of other things. Antimilitary, anti everything. I don't know what in the world would happen now if you had a war where you lost thirty, forty thousand people in a single day. We can make the biggest deal you ever saw out of nine hundred, you know. Now, if it was one of my family or something, I'd feel terrible about it, but it still isn't a very big deal. From the standpoint of a war, it's not really what you'd consider [00:20:00] much of a—it's losing about, oh, 1 percent of what you lost on V-J Day [D-Day?].

And we stood that without any problem, but I'm not sure we could stand that sort of thing anymore. And it would be a lot worse than that if you got into a nuclear war.

*Particularly at this juncture.*

Well, it's an unthinkable thing, as far as I'm concerned, but it's by no means impossible.



*Right. It's a kind of scary prospect, though, to think about having a nuclear war in this particular time, I guess.*

Well, there isn't any doubt in the world that some people are trying, and some of the people that are trying don't have the feel of it for them that we do.

*Right. That's the scary part.*

Well, I generally try to stay away from the politics of things as far as discussing them a lot. I'm relatively conservative as you'd expect, growing up the way I did. But in certain ways I'm pretty liberal, too.

*Has that changed? I mean did any of the work that you've done for the past years with the DOE change any of that?*

I don't think so. No, I was probably as conservative when I left the farm, or more so, than I am now. And so I don't think it changed a lot.

*How long were you in the Navy, just out of curiosity?*

Well, I was three-and-a-half years, and then I was in the reserve for a bunch of years. I didn't stay in the reserve and I retired about four or five years later as a lieutenant J.G. [junior grade] when I left. I didn't deal with the Navy and didn't stay in it, so they didn't keep me very long. I went to Iowa State and Notre Dame, and I was commissioned at Northwestern.

*Oh, really? What did you study?*

Well, then it was mostly engineering and science.

*I definitely thank you for your time and telling your stories. Are there any other things that you want to add or talk about?*

No, I think that's more or less all I can think of at the time.

*When you look back on the whole experience, because it seems like you've just had amazing involvement. What's it like looking back on that? Any regrets or any thoughts or insights?*

No. For having the start I had and the capability I had, I went a long ways and did very well. And I feel grateful for that, but I don't have any particular feelings one way or another. I didn't become a political guy that had to stay in the business. Once I got out and I quit consulting after a couple of years, I just hung it up. And I've done these before. The ones I've done before, I did one with EG&G [Edgerton, Germeshausen, and Grier] and some others. I didn't do it anywhere near as thoroughly as I did with you, or to go through this type of thing.

*Which I definitely appreciate because it's an amazing career, and important.*

I'm relatively happy with the way my life has turned out. I wish I was ageing better, but I'm doing all right.

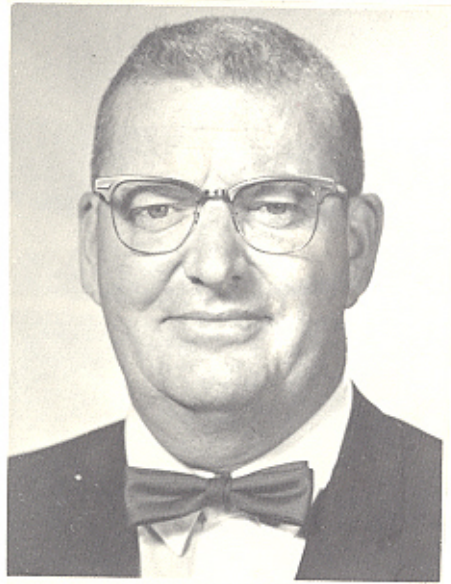
**[00:25:00]** *I don't know. I think you look pretty good.*

Well, you know, there isn't any way of ageing that doesn't have its consequences. And the one thing I worry about the most is having something happen to me or my wife, because both of us, we're within a few months of the same age. It's a terrible thing to think of, living along and those sort of things. But it'll almost certainly happen in one way, somebody'll go first. And I just hope I stay good enough to function until I can't function anymore. OK, well, that's all I really have, unless you—

*If I have questions or I think of something, I may give you a call. And if anything pops into your head, let me know.*

OK. Well, there isn't anything more I want to talk about, particularly about the business, but if you think of something and you want to talk about it, why, give me a call.

**[00:26:44]** End Track 2, Disc 2. [End of interview]



ROBERT W. TAFT

R.Taft1 circa 1960s

Robert W. Taft

*November 1, 1925 -- June 17, 2006*



R.Taft2



R.Taft3 circa 1980s



R.Taft4 King Shot 1952



R.Taft5 Romeo Shot 1954