

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

Interview with
Donald James

July 12, 2006
Las Vegas, Nevada

Interview Conducted By
Leisl Carr

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Produced by:

The Nevada Test Site Oral History Project

Departments of History and Sociology
University of Nevada, Las Vegas, 89154-5020

Director and Editor

Mary Palevsky

Principal Investigators

Robert Futrell, Dept. of Sociology

Andrew Kirk, Dept. of History

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[00:00:00] Begin Track 2, Disc 1.

Don James: I'm Don James. I was born in Erie, Colorado, March 10th of 1933. I was raised on a farm up till I was twenty-six years old or twenty-seven, and then I came out here to Nevada to go to work for the United States Public Health Service [USPHS]. I worked with my dad and my brother on the farm there outside of Erie, two miles north of Erie, Colorado. After my brother got out of the Army in 1954, we tried farming but there was quite a drought, so we both—he went back to school at Colorado Aggies, which Colorado State University now, and he graduated from there. I went to work out at Rocky Flats Plant [RFP, Golden, CO] between Boulder and Denver. It was a weapons facility that made triggering devices for nuclear weapons. I was a radiation monitor there, and I worked there for almost five years till January of 1961. Then I came out here to Nevada and worked with the United States Public Health Service as a radiation monitor offsite at the Nevada Test Site [NTS], where they did nuclear reactors in the early sixties and also atmospheric and underground nuclear testing. We were offsite monitors. We were stationed at Mercury, Nevada. We worked there for about three years, and then we were transferred to Las Vegas at the university, where we had our offices. We worked out of the university every time they had an underground nuclear shot and atmospheric shots. They had four atmospheric shots in 1962, I believe, or '63, and I forgot the names. I believe that one of them was called Little Feller I. And Small Boy and Johnnie Boy and Little Feller I and II, I believe. I'd have to look in my book and find out about that.

Leisl Carr: *No problem. We'll help you verify all of that stuff. You don't have to worry about that. We'll make sure we get it right.*

And I've been here ever since.

Wonderful. Now, you say Army, is that correct?

My brother was in the Army.

Your brother was in the Army. Did you do any service in World War II or did you just miss that cutoff?

No, I missed that.

That's probably good. And your brother served as how? In what capacity?

He was in the Army from 1951 to 1953, and he served his time—he served a year in Europe.

And then you guys made plans to farm up in Colorado?

Right. My dad had a 300-acre irrigated farm and also had 1,200 acres of dry land where we grew a summer fall of wheat. We grew half of it in wheat and then the next year we'd grow another 500 acres and then summer, and the other we'd left where the soil could—what do you call it?

Fallow? You left it fallow?

Right.

So it could aerate and then—

Right, and then we planted over every other year.

Wonderful. But that didn't work out.

No, it got very dry and we didn't have any water, and then both my brother—he went back to college and then I went to work at Rocky Flats. Then the time when the water came in, I believe it was in 1955 or '56, sometime in there, when the big Thompson project came through. and my dad got lots of water, got 300 acre feet of water, but we'd already got jobs. I came out here and my brother got a job with the government, with the Bureau of Land Management [BLM], and we

made government our jobs from then on. Later my dad sold the farm and the dry land and he moved to town, to Longmont, Colorado.

What an interesting change in your life, to have just missed that project, just a little too late.

[00:05:00] Well, actually, working with the Public Health Service and then the United States EPA [U.S. Environmental Protection Agency], both my brother and I were very fortunate. He was in the Bureau of Land Management and he worked with ranchers and so forth like that, and I did too. I worked with all the ranchers out here in Nevada, the Fallinis and the Sharps and the Cliffords and the Manzonis and the Uhaldes. The Uhaldes were from Spain; well, actually it's a little country out north of Spain between France and—it's Basque people. Very nice people. We worked with a lot of them. They run sheep out there in central Nevada. So it was just like working on the farm because you met all the ordinary farm and ranching people.

Well, that's really interesting. So you're coming from a ranching-farming area and you're going into a ranching-farming area.

That's right.

I never thought about it that way. Did you do the same thing at Rocky Flats?

Most of there was inside of buildings. I never did really care for it. It was the same type of job, as radiation monitor, but it was different. It was where you actually built the nuclear devices. In the wintertime you'd go there, it'd be dark, and when you left it'd be dark, and you worked underground. Most of the buildings were underground. I didn't particularly care for it, I was an outside person. But it was very good experience. I learned a lot about radiation monitoring.

Did you have any experience before that? I'm really unfamiliar with that.

No, when I went to work at Rocky Flats they put me in a training program. You passed a test and then went into a monitoring training program which lasted three years. You took tests every three

months and as long as you passed them you moved along. Then after three years you passed your final test in radiation monitoring and got your certificate. After I got my certificate, about six months later I got this job out here. I found out about it and applied for it and I was accepted and so I went to work for the government, for forty-three years exactly, from January the 9th to January the 9th of 2004.

No kidding. Forty-three years on the nose.

Forty-three years.

I hope you got an award for that. I hope they gave you something for that. That's a good chunk.

Oh, yeah. I received two gold medals in my forty years. One was for the Three Mile Island [TMI]. We were there. There were seventeen of us there twenty-four hours after the Three Mile Island episode. And in fact, TWA [Trans World Airlines], the EPA contracted them and we sent, I think it was, twelve tons of equipment to Three Mile Island, monitoring equipment, within twenty-four hours. We had it all set up in less than thirty-six hours. Once we got there, we worked all night and all day to set up all the equipment, seventeen of us.

Wow. This was in 1979, is that correct?

Yes, 1979. I believe it was in March of 1979.

I don't know much about that incident except that it changed people's views of nuclear energy.

We had all the noble gas units set up right away.

Wow. One of the things I need to understand, and this is why you're so important to this project, is you have forty-three years of experience; you have this whole spectrum that you've covered.

What I would like to ask you to do is sort of give me an overview of how it moved from the sixties, when you worked with the Public Health Service, into the EPA, and then the different shifting things that the EPA did. Does that make sense?

Well, most of it was more or less the same. The United States Public Health Service, most of the people came here—when the testing started, I believe it was here in [00:10:00] 1952, the Army was in charge of all the onsite and offsite radiation monitoring. They'd have people that was in the Army assigned to different towns for six months to a year. They were actually living in the community like Ely and Tonopah and Alamo, Nevada and Caliente, and they'd live there. Well, in 1957, it was transferred over to the United States Public Health Service, and they took over from the Army all the offsite radiation monitoring. And Reynolds Electric[al and Engineering Company, REECo] monitoring did the monitoring on the test site, and the Public Health Service people did the offsite monitoring. But everybody was stationed, lived at Mercury.

You did, too.

Yes, I lived there also, for three years, till we moved in 1964, we moved from Building 155 to the university here in Las Vegas. I think it was Southern Nevada University then, and that's where our new buildings were.

What was that like, living in Mercury?

It was pretty nice. You had your own room. You lived in barracks and you had your rooms and the bathrooms were down the hall. It was just like Army barracks is what they were. But you had private rooms. When we got here, we got \$9.00 a day per diem, and we stayed at Mercury, lived out there. All the breakfast, lunch, and dinners was \$1.00, and the rooms was \$5.00 a week, so that \$9.00 per diem, which was tax-free, was a lot of money. You could live on that and pocket your—what did we get? Every two weeks, I believe, after taxes and everything was \$114.00.

Oh my gosh. And you'd put it in your pocket.

Yeah, that was home free.

Were you married during that time?

No. I didn't get married till May 30th of 1962. But I still stayed out at Mercury during the week, even though I was married—come home on weekends.

Was that because it was a long drive?

Well, we just had to get up—it wasn't the drive or anything, we had government vehicles that would go back and forth, but we were working long hours. We'd go out the back way out of the Nevada Test Site, the valley road, and sometimes we'd have to leave at one o'clock in the morning and go out down the valley road, the north entrance of the Nevada Test Site, and then come out on the old highway, State Highway 25 it was called. We'd set up our equipment out there, waiting for the shots and so forth. During the reactors, we'd also work—most of the reactors were done in Area 400, and we'd have to go down into Lathrop Wells and the Amargosa Valley and Death Valley and so forth like that. That's why we stayed at Mercury, because we had to leave so early in the morning and work late at night. It was easier—and then we had to bring all our samples back into Building 155 at Mercury, so you just really couldn't come home during the week.

That makes sense.

In December of 1970, most of all the Civil Service people that was with the Public Health Service just automatically transferred over to the United States EPA. That was a new agency that was formed then. The commissioned officers, which there was a lot of them, stayed with the Public Health Service till they completed their—most of them retired after thirty years. They were forced into retirement. Surgeon General [C. Everett] Koop at the time decided that thirty years was enough, so he made it mandatory for the commissioned officers to retire after thirty years. A lot of them stayed thirty years, then they retired and usually went to work for Los Alamos [National] Laboratories [00:15:00] [LANL] or Sandia [National Laboratories, SNL] or

Lawrence Livermore [National Laboratory, LLNL]. Then after two years they could come back as civil servants into the United States EPA.

Interesting. That's a way to extend your career.

A lot of them did, and some of them went to different jobs but still stayed in the nuclear industry.

How did that transition affect you?

Well, I was Civil Service, so it didn't bother—they just automatically turned me over into the United States EPA.

Did the job change at all?

No. Did exactly the same job, and the same bosses, same supervisors. Nothing changed except you went from Public Health Service to EPA.

So your little patch changed.

That was all.

That's it.

It was a little different because when you'd go up to Ely, at that time they were closing the copper facility up there, the smelter, and the EPA was more or less involved in the closure because of the pollution. So when you went up and you had your little patch on your shoulder, which I did, I was kind of proud of it, so anyway people were a little hostile, especially that worked with the copper company there. So I decided I'd better not wear my patch and I just said I was with the Public Health Service for many years after that. A lot of people never knew the difference, till finally after a few years it just went away; they didn't care if you were EPA or what anymore.

The newness had worn off, and the hostility. I understand.

Right. But when you get about 2,000 people lose their jobs, they were a little hostile up there.

Right. That's interesting. Can you tell me what it was like doing your job? Specifically when you did radiation monitoring, what did you do? I need you to paint me a visual picture of it if you can.

Like I'll take one—on a lot of the shots we'd go out—a lot of them wouldn't vent, but you'd still have to go out and leave early in the morning, usually about one, 1:30 in the morning, drive, oh, 100, 150 miles. It'd still be dark and then they'd position you in where you wanted by radio, because we had repeaters all over, Net 12, where they thought if there was a venting or a release of radioactive material. Then we'd set up our equipment and so forth like that, or get ready to set it up. If there was a venting, then you were positioned in where they figured the cloud would pass over you, the radioactive cloud. Then you'd set out your equipment and get it all started and then monitor the passing of the cloud with handheld instruments and also your air samplers and so forth like that, till the cloud passed. Then you'd move on down and follow the cloud, which would sometimes if—would take days. You'd just follow it from wherever you contacted it, like it was in the Gunnery Range and you'd just proceed on and follow it. They did it with ground people, which were us, and also with airplanes, and they'd track it. They could position you from the airplanes on where the cloud was going to be.

Is this a cloud you can see with your naked eye or is it one—?

At first you could. You could actually see the fallout. I was in some fallout there in Gold Flats which is north of Area 20 at the Nevada Test Site. I was right just about in the line of the cloud passage and I'd doubled back my instruments so it wouldn't get them contaminated. I set them on the hood of the vehicle before the cloud—I could see the cloud coming. It was dark and it was covering the whole Belted Range, mountain range, the fallout was coming. When it started

coming in, of course, the scintillator, it went right to 5 mR [milliroentgen] immediately, pegged it out, even before the cloud got there, just from the shine. [Palanquin test, April 14, 1965]

The shine is?

From the fallout. I don't know exactly how to explain it. You weren't getting fallout yet but—

But it was the evidence that it was coming.

Yeah, right.

Gotcha.

It pegged it out, so then I went to my other instruments and then the fallout started [00:20:00] coming. I was sitting in the vehicle and it was coming down so heavy, I turned the window wipers on in the vehicle to knock the debris off, the fallout, so I could see the instruments. I still couldn't see them because I couldn't see—it was falling onto the plastic bags that I had the instruments in, so I had to get out every so often and shake them out. So it pegged out the E-500B which goes up to 2 R, 2 roentgens. And then I went to my other instruments. We had some old Army instruments, and I forgot exactly what they called them. We had them set for—Reynolds Electric had theirs set up to 500 roentgens. Ours was set for 50 roentgens because we were farther away. So it started going up 5 R, 6 R, 7 R, quite rapidly. Oh god. Still had my window wipers going and get out and shake the bag and to look, and it got up to 10 R and I says, well, I think it's about time to get out of here because—

It's a little more than—. Wow.

So I called on the radio and I said, Lee, well, turn the truck around, and started out, and just as I was leaving I started putting the instruments in the vehicle and it was reading 12 roentgens, which is pretty good because 500 roentgens is fatal, full body dose. One hour, you've had it, you ain't going to make it.

You're a little cooked?

Well, you're a goner in a couple of weeks, two to three weeks. So I figured that's the time to leave. So I went on down and got out of the way. Well, my instruments were—couldn't use my scintillator; it was completely wiped out for hours later because it was completely saturated. E-500B, after I got out of the cloud, I unbagged everything and tried to get them down, but the truck was, it was running about 500 mR on it, milliroentgens. The radiator and so forth, it was pretty cracked up. So went back in. I figured—and I had about 60 mR on me, I was in the truck most of the time. So I was going back to Mercury on the valley road that's the north entrance into the—the road into Gate 700. And so I get there and they had some REECo monitors there and it set their instruments off. They said, *Where you coming from?* And we had a big long conversation. I said, *I was out in Gold Flats,* and I said, *I'm going into the CP [control point].* I got to get the truck deconned and so forth like that. So a fellow followed me into the CP and went in there and I got deconned and took my clothes and everything and so forth like that. Put me in coveralls and took my shoes and bagged them up in a big plastic bag. Then they deconned the truck, and I went back to 155 and put on some regular clothes. Believe it or not, kept my clothes and brought them home and the wife did them in the laundry.

No kidding. Just put them in the washer.

Yeah, they still had, I think, 25 mR on them. Did that a lot.

Oh my God! Do you still have them?

Oh yeah, they were clean after. But in those days, that's what you did. You didn't—

It wasn't quite the—

Yeah, they didn't have the thing. They just run amok, we did, in those days. We were more interested in documenting the cloud and where it went. And then the next day, I ended up, I think it was, oh, a lot of shots ended up into Idaho and northern Nevada and Elko and all over.

Then on the reactors in '61 and '62 and '63, '64, and '65, we'd be out in the Amargosa when they'd fire the reactors. They were on railroad cars. They'd bring them out of the E-MAD [Engine Maintenance, Assembly, and Disassembly] Building, and they were turned upside down. You brought them out and then they'd run the reactor. Well, the coolant in it is graphite, and they'd shoot out the graphite. They're like grains of sand; they become radioactive. There in the Amargosa Valley, which is south of Lathrop [00:25:00] Wells, probably twenty miles from the reactor, me and Jerry Carrillo, we were on the road, we'd put a scintillator up on the dashboard of the vehicle and we'd go down those dirt roads, and when the scintillator would peg out we'd say, oh-oh, we got a graphite pellet out there somewhere. They're like a grain of sand. You can't see them. So then we had our E-500B and we had it where we had a stick with a probe so you wouldn't have to bend down and hurt your back, you could stand up with this probe, you had the hook down like that [demonstrating], and then you could go down and you'd set up and you'd go out in the desert and go around until you found that graphite.

You had to find that one piece of graphite?

Yeah, it'd be laying out there. You'd find it because it was really radioactive. So we'd get up there, and then you'd have a big spoon with a plastic sack and you'd lift it up and lift it up and get your E-500B on there, Geiger counter, and see if you had it, then you'd chunk it in the plastic bag. You'd tie it up and sit it and then put it in the back of the truck. You'd find a lot of them in the mRs, 400, 500 mRs. Well, this one we found, it was 2 roentgens, 2 R. So going back in, I believe this was in '63 or somewhere in there, [it was either B-4D-202 Kiwi on May 1964 or B-

4E-301 Kiwi on August 28, 1964] it was one of the Kiwi shots, then going back we were about 100 feet from the entrance to Mercury and we set off the gamma alarm because we had all these graphite pellets, set off the gamma alarm when we were bringing them back. So anyway, we went up there.

On a lot of the shots, reactors and shots, Reynolds Electric, all of their instruments, they were also in Building 155. They had the west end and we had east end of the buildings. Well, a lot of the Plowshare shots, they all vented, and so did, you know, the reactors, well, we had all—our trucks become contaminated. We'd come back—well, on one of the shots, all of us, we had about eight vehicles that were all contaminated and we didn't stop at the CP to get them deconned because they wanted all the vegetation and the soil and the water and everything that we'd picked up after cloud passage, they told us to bring them in immediately into Building 155 so they could get them counted and so forth: the air filters and the soil and the water and the vegetation, on our counting equipment there. So we all pulled up there, about eight, nine, ten vehicles, right along the north side of the building. We just accidentally parked them down where the REECo, all of their monitoring equipment was. So of course, bringing everything in there, we had it on outside and we were rebagging everything and being very good and bringing them in so we could check everything on our instruments. Well, their background went up because of the trucks, they were so contaminated; this is through a concrete wall and the trucks were just parked right there only about three feet away. Well, all their instruments, they just *boom!* They couldn't do anything because their instruments was—.

Your trucks had mucked up their—.

We'd saturated their instruments from the radiation coming from our trucks, so they couldn't count any of their stuff. We had to back the trucks up, and everybody—called the fire

department, they came up there and we backed our trucks up about 200 feet and took them out over there in the desert. They came and washed—because a lot of the fallout from the trucks had dropped off there, and they washed everything down away from Building 155. Then it settled everything down where they could count and we could count everything. We had all the bags and the soil and everything outside, away from the building. We'd bring them in after we rebagged them and kind of kept them in lead shields.

Some of the stuff that we brought down later on when we brought it to the university, we moved our lab down here, and you had to keep everything outside, paper everything in, before you brought the vegetation in, and some of it was so hot, the [00:30:00] vegetation, that they couldn't even put it into the machines because you would contaminate—it'd be too hot, so you'd just leave the big doors open on the counting machine and you'd set it out on a chair and count them that way.

Wow. That's an interesting procedural issue.

Well, it did, you'd find out what isotope and everything else was in it. But you counted out—you couldn't put them inside.

No. I don't imagine. I did have one question on that fallout story you told me. Do you remember what year that was or what test that was?

There were several of them.

Several of them that you—?

Yeah. The one I really—I think it was Palanquin. You're going to have to get a book like this.

You can get this from the Department of Energy. [DOE/NV-209 REV 15 December 2000]

We have some.

You've got it?

Yes, we do.

This is very interesting. You can go through here, they're all logged down, every shot—

This one is called the United States Nuclear Tests, 1945 to 1992. Oh, nice.

Let's see, I think it was April of '64 [looking through book]. I remember this one because I'll tell you a little story on that one.

Absolutely.

That was '65 [referring to Palanquin]. Pike was the one where it came down through Las Vegas.

There was a guy here at one of the schools, he was demonstrating a Geiger counter to his students when the cloud passed over, and I guess it registered about 1 mR, 2 mR, or something like that. And the cloud, that was Pike.

That was March of 1964?

Yeah, and the cloud went clear down into Mexico.

Oh wow! You guys didn't have to chase it that far, did you?

Well, I was off for eleven months during that one there. I went to work at a plumbing company for eleven months and then I went back to work. I was gone eleven months during '64 to '65. I came back in—let's see, I'll show you here what we got. Where is it? [Referring to book] This one right here.

Palanquin in April—

Palanquin. Release of radiation. That was up there. We chased that. It vented and it went up through—straight north of the test site, up through the Belted Range, over Highway 25, down 8-A down to Austin, and we chased it clear up into there. I ended up—no, there were several of us Public Health Service officers and Civil Service, Public Health Service people—I ended up in Winnemucca.

That's way out there.

It had snowed and rained just as the cloud was passing, and dropped everything down into—the radiation contamination, into Kings and Paradise Valley there out north of Winnemucca, Nevada. We were there for six weeks. We had people at Winnemucca, Battle Mountain, and Elko, the whole area in there. Well anyway, the ones I'm most familiar with is Kings and Paradise Valley, which is fifty miles north of Winnemucca. I was there six weeks. There was about eight of us there in Winnemucca, and then they had six or seven people, Public Health Service officers, in Battle Mountain and some in Elko. We picked up milk from people's dairy cows, or family cows is what they were.

Right. Because there's a big ranching history out there, isn't there?

Right. I had, I think, six ranches in Kings Valley and there was about five places in Paradise Valley. Well, I did most of my run every day up through Kings Valley, up to Kings, I went up to Denio and McDermitt. They're up on the Oregon border, right there on the line. It might be in Oregon. Half of the little town is in—I mean there was only a filling station and a bar and a—it's [00:35:00] nothing there. I'd go through, make a circle in Kings Valley and pick up milk from the people, a gallon of milk. I think I had five or six locations. Then I'd bring mine back and everybody would come back and meet at Winnemucca airport and load the plane—it was a Public Health Service airplane—load it up full of milk and vegetation. Then he'd fly on over to Battle Mountain and pick up the samples there, and then into Elko and pick it up, and then back to Las Vegas. He did that every day for six weeks. All the milk was just loaded with radioactive iodine, more than drinking water standard. I think it was all over 5,000 Pico curies per liter. And those kids—in fact I started, after about three days, I'd leave a cubotaner, a one-gallon cubotaner

every day and they'd fill it up and then I'd buy milk from the grocery store and bring good milk out to them and leave it and just switch milk with them.

Was that your idea or is that just what you did?

Yes. We just did it because there was no use—young kids, I mean they were little babies drinking—. In fact probably, just hearsay, I'd say that those young people probably all got thyroid problems now. They'd all be in their late forties.

Sure. From the milk contamination?

In fact there was a big article here in the paper here about a year ago. The governor of Oregon—see, the Downwinders, they won't accept Oregon as a state for Downwinders, and man, those people got zapped just like everybody else. I was thinking seriously, I was going to call the governor up there and tell him he could find all of this information there and see what he could do about it because, myself, I think it's wrong. But they didn't know anything about it. In those days, you know, it just—the government did crazy—they just, you know, it had to be done and they did it, and heck with everybody.

Yeah, people just do things, yeah.

I heard stories about—in fact I got pictures. Joe [Joseph] Fallini showed me pictures of some of his horses and cattle where they got beta-burned. This is in the fifties when they had the atmospheric—.

Is this a skin burn?

Yes. It'd grow back white, the patches would grow back white on the cows and on the horses.

Well, they had veterinarians but they were with the Army and that in the fifties, early fifties, and those veterinarians would go out, the Army vets would go out and they'd go, oh, that's ringworm. Well, it's not ringworm. It's actually radiation beta burns is what they were. You

can't fool those people. They're pretty smart, you know. And Joe Fallini says, *why, them lying son-of-a-guns, you know. He asked me and I told him the truth. I said, You're right, Joe.*

Good for you.

He'll tell you if you talk to him. He'll tell you the same thing.

He's one of the people on my list. My goal is to get as many ranchers as I can because that's my kind of people.

Well, there's so many of them. Like I said, I was in atmospheric and underground shots, I was involved in out of 1,100 and some shots, this is all of them, Pacific, Mississippi, all the Nevada Test Site, I was involved in 820.

No kidding. Chasing this data.

Yes. Well, a lot of them you didn't because a lot of them did not vent.

Right. Well, that's good.

But there was a lot of them. Next time you go through this book, it'll tell you which ones vented.

And those are the ones that you ended up chasing.

Right. A lot of them said onsite.

Yeah. Some say onsite, some say offsite.

Like this one, offsite, and some will say, only detected onsite. Well, don't let them fool you because most of them all ended up offsite.

So if there was an accidental release, it was probably onsite and offsite as well. That's a good piece of information.

Right. There'll be some in here that says, detected only onsite, but we found a lot of them that ended up offsite. Very small radiation, but they were—we did detect them offsite. And a lot of them, I don't know if they included the Gunnery Range as onsite or not. Probably did. [Nellis Air

Force Base Bombing and Gunnery Range and the joint use area with the Desert National Wildlife Range.]

I don't know. I'll have to find that out. And it'd be interesting to see how the government defined what was onsite, the borders.

Yeah. They probably took in the Gunnery Range, just at a guess. I don't know.

OK. I'm going to have to look that up.

[00:40:00] But they still run cattle. The Fallinis and the people from Alamo run their cattle up into Kawich Valley. For years up into the seventies the Lambs—in fact Ralph Lamb was sheriff of Clark County for years and years, and his family, they run cattle up in the Kawich Valley like the Fallinis did. And they were in there. Those people were there when a lot of the radioactive clouds passed through. In fact, we'd go back in there and have to tell them, *Hey, it's coming in here*, and they'd say, *Well, we can't leave*, so you'd just stay with them as the cloud passed.

So the procedure was to warn them and let them know but they—?

Oh yeah. If they didn't want to leave, you couldn't make them. We'd just stay with them, and you'd monitor, go ahead and put film badges on them, and then a week later you'd track them down and get the badge away from them, if they didn't lose it or wash their clothes and wash it through the washing machine, which happened a lot. But most of the time we got them back.

That's good. Did you enjoy working with them?

I loved it.

Tell me about that interaction, about how it was to go up there and—

They just were really—sometimes we'd get there very early in the morning, like three o'clock in the morning. You'd just pull up there in the ranch, or if they were camped out at one of their cow

camps, and four o'clock, they'd look out there and see the truck out there and come and rap on the window because you'd be kind of dozing in there, Come on in, I got breakfast coming, come on in. You'd go in there and eat with the cowhands out there at the cow camp.

How did you work your way in? Because it is a close—

Oh, we knew where they were. On weekends when we first come here, we'd go out there and run all those roads. We knew where every spring was, every cow camp, Gold Flats, Kawich. Then you'd go to the ranches and they'd tell you where they were going to be working in roundup or branding. They'd be over at Indian Springs, not the town but the spring up north of the test site. On weekends, we'd just go out there and there'd be several of us. We'd take eight, nine government vehicles and run all those roads in the Gunnery Range, because the Gunnery Range was usually closed on weekends then. We checked out all the roads. We knew every mine in the whole area north of the test site that was going, every cow camp, every ranch. We knew everybody. Well, there wasn't that many people, so you'd just know.

And it was just frequency of being out there and having your presence known that—

Right. You were out there all the time. All of us. There was fourteen, sixteen of us. And we'd be out there all the time.

Did you work in pairs?

Usually not. On weekends we'd usually double up; like on Saturday and Sundays when we were running the roads, but usually it would just be one person in a vehicle.

That's a lonely thing.

But we had communication. We had Net 12 and they had repeaters all over, so we had communication, which was good.

Yeah, that is good.

So if somebody broke down, we could go and find him, which happened a lot. And you'd call. As long as you didn't run the battery down.

Right. Then you'd really be out.

You did it real quick. You told them exactly where you were and then several hours later, here there's somebody'd come and pick you up. If they didn't know where you were, they could never find you. But they knew where you were, because we'd run those roads for months and years. We knew every nook and cranny of that offsite area. Someone tells you go to the old Dominion Mine, or over to some mine over here, that you knew exactly where it was and you could go to it. Might be eighty, ninety miles of bad dirt road, and in the mountains, and there'd be roads going this way and that way. Well, you knew exactly which one to do because you'd run every single one of them.

You saw parts of Nevada nobody sees.

That's right.

That's amazing. That's wonderful. Can you tell me who your coworkers were? You mentioned there were sixteen of them.

[00:45:00] Oh, in those days, well, there was Dick [Richard] Kramkowski, Chaz Fitzsimmons, Dan Waite, Jim Mullins, Walter LeBarick, Neal Matthews, Bob Decker, Wayne Bliss, Chuck Costa, Jim Payne, Don Ruble, Dick Douglas, Fred Johns, Frank Sayer, Bud Harvey, Jack Vandervort, Frank Reed, Don Stanton, Herbert Maunu and Jack Coogan was our supervisor. There's a fellow you're going to have to talk to. Make a note there; I'll give you his telephone number. He's retired. He's been retired. He was our supervisor. And he worked with Reynolds Electric for years as a supervisor for the monitors onsite, and then he came to work with us in April of 1961 as a supervisor.

For the offsite?

Yes, for the offsite, Public Health Service. Jack's an ex-Marine. He served in the Second World War and Korea.

That's a hefty tour.

Korea, he got a battle star commission, which is—you don't see too much. That's pretty tough.

He's been through a lot, then.

Really nice guy. You got to talk to Jack.

Will do. We'll look him up. So you're out there all by yourself, making these drives on these sometimes good, sometimes bad dirt roads, and your job is to monitor the radiation, just track it wherever it goes.

Yes. And in those days, there was no such thing as air conditioning in those vehicles.

I was wondering.

What you'd do is roll up the windows, if it wasn't too hot, and pull the vents, and it'd cause a vacuum, and so you wouldn't get any dust in the vehicle.

So you have sort of a contained space.

That's right, it'd be nice, but then it got so hot, you'd roll the window down, the dust would just come rolling in. Then you come home, you're just a beautiful gray from your hair—if you wore a red shirt, it was just a sandy color.

Oh my gosh. Now when you got the samples, you picked them up—well, you tracked the cloud first, and then you picked up any samples underneath the cloud or wherever the cloud had passed.

Yeah, usually after it passed, then you'd go back and do your sampling, mostly vegetation.

So that includes plants? It's just plant life?

Any plant that you could find. You'd put it in plastic bags; get enough pillowcase-sized plastic bags, get enough so they could count, and then you'd start picking up milk and water and so forth. And we also did that. Every month we'd pick up water there on the Nevada Test Site at all the springs that was on the test site. They did that for years. Then we'd go around and make a big loop around the whole test site, down to Death Valley and Tonopah and at the ranches and over to St. George and Cedar City [Utah] and pick up milk and water, and grain from some of the places, and feces.

Digested matter?

Right. And bring it back—we'd do that once a month, from when I first got here in 1961.

And that's cattle, that's horses—

Yeah.

Dogs, anything.

No, dogs, just usually dairy cows or animals that—like at the dairies is where we'd pick up the feces. Like at St. George, Cedar City, we'd go out in the corral and pick it up and then whatever. Like what hay they were using and feeding, or grain, and bring it back. And then they did a lot of—Kenny [Kenneth] Giles probably told you this. They'd pick up a lot of animal kills on the test site and they'd butcher them out and check their liver and heart and thyroid and all that, no matter if it was a horse or cow or whatever.

That must have been an interesting cross-section of samples. I mean it sounds like it was very thorough.

Oh yeah, it really was.

And it kept you guys really busy.

Yeah, we were going all the time, and sometimes like I said, a lot on weekends.

Did you have regions that you went to? Like were you assigned a region or—?

Yes. And when there wasn't any activity going, we were assigned to certain areas [00:50:00] that we'd stay in and work in. But then if there was a release of radioactive material, then we'd go all over, wherever we were needed.

Right., That makes sense. And you'd bring this data back to Building 155.

In the early days, to 155. From 1957 to 1964, a lot of it was done—most of it was done—in 155, and also they had labs here in town. Then in 1964, that's when we came in to the university, when we had our big lab there.

That's the one that's still out there?

We still did some counting up at 155, but most of it was done at the university here in town.

And what did that entail? Once you dropped it off, do you have any knowledge of what happened to it after that, how they processed it?

Well, they had your 256 analyzers and your alpha, and your air filters, you had your beta-gamma counters, alpha counters, beta-alpha counters, and you counted your air filters. Then they did the water for strontium [Sr] and cesium [Cs] and the milk for radioactive iodine; you found all kind of stuff. One of the water samples I brought back, out there in Pinoyer Valley [approximately thirty miles north of the test site, the town of Rachel is in this valley], there's a windmill. Well, they wanted—most of the wells are maybe sixty, seventy feet deep and, well, the wind wasn't blowing, and they wanted a water sample. I said, well, OK, I'll just get it out of the trough here because there was water there. I picked up and got me a gallon of water there and brought it back. Well, it was loaded with radioactive tungsten. So we found all kind of stuff.

So what did you do?

Well, it was there.

How interesting. Probably stuff you never even thought of.

One thing the bomb was made of. Once it explodes, it's going to be radioactive.

I never thought about it that way, but that makes sense. So you could have the radioactive graphite from the rocket tests, tungsten from whatever other test, it could be anything.

Yeah, that's right.

Wow. Talk about finding a needle in a haystack, too.

Yeah. Well, just one of those things. I just happened to pick it up.

Yeah. Interesting. And then all that data would be accumulated and what would they do with it?

Well, DOE's [U.S. Department of Energy] got it all now. They got it all in there. In fact, a lot of this we went through several years ago. There was about ten of us. For a year we went through all the old records that was kept, from 1957—well, from 1945. In fact I did the Trinity work on the test; all that the Army did on their monitoring, had to go through it and some of it was—most of it was—kept in the vaults over there on Industrial at the old AEC [U.S. Atomic Energy Commission], DOE. Some of it you couldn't even get removed from the vaults, so you had to go and work in the vaults and go through it and redo all of the stuff. Make some sense out of what those Army monitors had put down. That was something else. You had all kind of people that did some of the shots, like had some of the UCLA [University of California, Los Angeles], some young people that was going to the university there, they came out to the Nevada Test Site, some of the atmospheric shots. Right after the shot, within hours after the shot had gone, they'd go in, right in there, they were suited up with respirators and things like that, and they'd go in and take readings. I couldn't understand a lot of it. They'd take a reading three feet and they'd look in one direction, and then they'd turn around and take another reading at another direction, and then another reading in another direction, at three feet, and then they'd do everything, make a circle,

and the same thing, right at ground zero, right where the bomb went off. Most of the stuff, like the alpha, most of [00:55:00] their alpha instruments only went to 20,000 counts per minute.

Well, they were all—alpha was just laying all over. They were all pegged out. On all the readings it said over 20,000 counts per minute.

Oh gosh. That's a little risky.

Well, alpha doesn't penetrate.

Oh, that's the heat. Right.

They were suited up. It doesn't even go through a piece of paper. But the beta and gamma, especially the gamma, you didn't have anything. I couldn't believe some of the readings they got.

And these are students from UCLA.

Yeah, from UCLA. And all those records, they got all those records, and we went through them all over there. I don't know if people can get them. I guess the Privacy Act, you could probably get them. It would blow your mind on some of the things that went on.

Gosh. Well, tell me more stories.

Well, there's just so many of them.

Let me see if I can't give you some—I had a list of specific things that I was interested in. Oh, here's one you can tell me, and then I'm going to have to change the CD before we run out of time on that one. Your security clearance. Did you have to get one and how did that go?

Oh yeah, you had to have a Q-clearance. I had one at Rocky Flats, had a Q-clearance there, so when I came out here I just—there was no, you just—every five years they do the Q. So when I came out here, I had a Q-clearance. And then they update it every five years on your Q.

That must've been convenient.

Then I was one of the radiation monitors at Area 51, and I was there. There were several of us that was up there. But you had to get a top secret Air Force clearance for the Air Force, and I had that. The thing is, on theirs, you have to do a polygraph test, so I had to do the polygraph test, and it's done by random. You never know when you're going to have to do the polygraph test for top secret. One time I had—in six months they called me three times and then I went for three years without doing the polygraph test.

Is this an ongoing thing? I mean you would have these continual random polygraph tests for the Air Force so you could be out on Area 51.

Yeah, they just called you up and you had to go and do it. So in three months I had three of them, and then *boom*, never had anything for three or four years, they didn't call me up. I thought that was kind of funny. I said, you know, why don't they do it every six months or every year or whatever? But it was done by random.

That is kind of funny. It's too bad you couldn't win the lottery like that. That would've been fun.

Yes, it would have been.

So the Air Force wouldn't accept your Q-clearance?

No, they accepted it.

Oh, but you had to do additional—

But they wanted you to have a clearance also, top secret, so I had two of them, Q and top secret.

Wonderful. Well, I suppose it could be worse.

Because see, they had certain places that you had to—that nobody was allowed up there, and you had to have their own clearance. Being a radiation monitor, I was supposed to go anywhere, so that's how come I got the top secret Air Force.

And did you—you went everywhere.

Everywhere, but I never seen nothing.

I was going to ask you. I was working up to that question. Did you see anything?

Never seen a thing. I don't know nothing. Never will, never.

I'll be darned. Understood. All right, I'm going to stop this.

[00:58:48] End Track 2, Disc 1.

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

I worked several years—we started the long-term hydrological program in 1972.

What's that?

That the monitoring of water sampling at all the underground nuclear shots in the United States that we had.

The long-term hydrologic—

Long-term hydrological program. The shot up at Fallon, Nevada, we'd go up there once a year and water-sample. And between Tonopah and Ely, Faultless, we'd go up there and water-sample.

Now you're not looking at surface water on this.

No, these are underground.

This is all ground water?

Yes. We have a rig that can sample—EPA has two trucks, and we have a cable that can go down to 6,000 feet and sample. The one well up in Farmington, New Mexico was 3,600 feet; that was our deepest well that we sampled.

That was a Plowshare shot, was it, in Farmington? Or was that something else?

No, it was with El Paso Gas. It was to see if the cavity of natural gas coming into the cavity.

They flared the well a couple of times after the shot and there was a lot of gas that came in there, but it had a lot of tritium [T] in the gas, so they said they'd wait a few years and try it, till it

decays out. May do it or it may not. That was at Farmington, and then at Carlsbad [NM] they an underground nuclear shot. That was the first one that was offsite. That was the shot Gnome. And then they had two nuclear explosions in Hattiesburg, Mississippi. Well, outside of Purvis, Baxterville, Mississippi. Then two gas. They'd pump oxygen and methane down into the cavity, and then explode it. There was two of those. In fact, one of them went off—they had a lightning storm go through, and lightning hit it, and it set it off. Those were seismic. They were going to have seismic—I think that was the second nuclear explosion that set that one off. They were supposed to have all the seismic throughout the world, because it's in a salt formation, and the Russians were doing all of their underground nuclear explosions in salt formations. So we did two of them in Mississippi to see—and they have the seismic setup to see. Well, when that lightning hit there, they only had one seismic going and that was in Purvis, Mississippi, which is about ten miles away. All worldwide, they didn't get anything.

Did you get to go to these other sites too?

I went to them all.

Farmington and the one in Mississippi?

Two of them in Colorado, both of those, at Rulison and Rio Blanco. That's outside of Glenwood Springs or Rifle. Rifle, Colorado. Rio Blanco, beautiful country. When I was growing up, my dad would go deer hunting there on Piceance Creek, deer hunting. He'd go once a year and I'd go with him. That's just where they had the shot, was just down from there a little ways. I'd tell the guys, I said, That's where we used to set up camp right there.

Must've been nice to know the area.

And I knew some of the ranchers.

Yeah? Out there too?

Yeah, because we'd stop when my dad—we was there, you know, six, seven days, and I knew one of the ranchers. Last time I went up there was in 1954. I went with my dad.

Wow. Did you catch anything?

I got a deer and that was the last I—after that I said I'm not into that anymore. I just can't kill animals. I love meat. I'll go to a store and buy my meat. I'm not into—I just can't do that.

Neither can I.

When we had the slaughters out at the test site, had to do that three, four times a year, where you'd kill the animals—

[00:05:00] *Did you have to do that?*

I was in the some of the—I didn't do the killing but I was one of the monitors that was out there. Didn't particularly care for that. Kenny Giles had to do that. But that was the job. It had to be done, you had to know what was going on. You'd buy these cattle from the ranchers, like Sharps or Fallinis or whatever that run out there, three, four of them, and bring them in every—

Did they buy them at market price or—?

Yes.

Well, that's good. That's fair.

Yeah.

I'm not too into that myself either. I have a little trouble with it. Just one too many times.

Yeah, it hurts you. That last time, I was sitting up on a log out there at Piceance Creek up in the mountains and I was resting, sitting there, and pretty soon this little doe came up, fawn, and looked at me. It was about from here to just not very far, about ten, eleven feet. It looked at me and [went] *naaaah*. And I said, what's wrong? And I looked and it turned its face and the whole side of its face was shot off. And I said, ohhh.

That's it.

Never go there again. I said my hunting days are over. I never went back, never hunted, ever again.

Completely understand. I understand that people do. I also understand that I can't do it.

That was the end of my deal.

Now you mentioned the Kiwi TNT test, and I did catch some excerpts on the Internet. They had some clips. Just stills, not full motion. I checked with Jeff Gordon out at the [Atomic Testing] museum and he didn't have the film, but he said it's probably sitting in the museum. It's part of the displays. What made you mention that to me?

Well, after the Kiwi was done—that was a Kiwi reactor, and that was the end of it, because I was in several of the tests on the Kiwi. So when they were done with all the reactor, the Kiwi reactor, they pulled it out on the railroad car and pulled the rods in it. Destroyed it. They had, I think, a sixteen, eighteen-minute film on it. It was classified for years and years. If you ever get the chance, it's very—it's in black-and-white, but I think you'd enjoy seeing that.

The pictures that I found on the Net were in color, and it was just like giant sparklers, everywhere. It was just a big, big, big explosion.

It was a mushroom cloud that came out. I was at Lathrop Wells, I was just looking right, probably maybe four miles away. Beautiful.

You could see it from four miles away.

Yeah, it was impressive.

Was that one of the only outside things you saw? Because you covered—

Oh no, I was in Gold Flats probably in the Area 18 when they had, I think it was Johnnie Boy or one of them, Johnnie Boy or Danny Boy [Johnnie Boy in Area 18] or one of those atmospheric—

When you first came—

And it was early in the morning. The sun had just started barely coming up when they shot it. I was sitting in the truck and looked and it was a beautiful mushroom cloud. Beautiful. It came up over the top of me, but it split, and one went to the west and one went to the east, the cloud, and I got some fallout but not much. I think I read about 250 mR. Then we followed that clear to the Tonopah Test Range [TTR], I did, and then up over Highway 6, U.S. 6. There I set up—this is funny. I set up, I believe it was on Johnnie Boy—one of those atmospheric shots there. I had a portable sampler that would run on a tape, and I believe it'd go up to 60 mR, and you could set up for twenty-four hours. Well, it'd run more than that; I think the tape would run several days. It was getting late at night, so I just stopped the truck, it was about twenty miles east of Tonopah, and I just went over there and set it down on the ground and set it and said, oh, I'll pick it up in the morning, because the fallout was still coming down. I think I was reading something like 45 mR, and I didn't want to stay there because it was [00:10:00] about ten o'clock at night. I said I'll come back and pick it up in the morning, because it'll give me the data on how long the cloud passed and so forth like that. Well, early in the morning, banging on my door, it must've been six o'clock in the morning. It was the sheriff and I looked at him and I said, Gee, I was just getting ready to get up, you know.

And he said, Is this yours? And he had my—. He said, Yeah, he said, some guy found it alongside the road, he said, out east of town here.

I said, Yeah, that's mine, and I said, Doggone it, I said, how come that--, I said, who did it?

And he said, Oh, some tourist stopped and he brought it into the sheriff's office.

And I said, Oh God, I said, what time was it?

He said, Oh, about eleven o'clock.

So I said, Well OK, and I said, Jesus, why can't people just leave things alone?

He said, I don't know why they don't.

But he knew who it was, who it belonged to.

That's funny. That's great that some tourist picked it up, a non-local.

And brought it back to the sheriff's office.

That's so interesting. You were in an interesting position, then, because you didn't live up there, but people knew you and you were—yeah, what an interesting thing, because there's no way you could be mistaken for a tourist. No way.

Oh no, everybody knew us. Well, a bunch of trucks coming in there, they knew whether there was going to be activity. That's what you had to say. You couldn't say there was going to be an underground nuclear shot. Here's twenty government vehicles with the antennas and all this, and everything. Then everybody, they'd say, when's the shot going to be?

We'd say, You mean the activity?

They said, Yeah, the activity.

They knew everything, and then people, like I said, because of security: activity. Come on, give me a break here. Everybody and their dog knew what was going on. And those people wouldn't say anything. Like I said, they'd know a person that don't belong immediately.

Right. That's what's so remarkable about you and the guys you worked with, is you were accepted, and those are very tight-knit communities.

We'd be out there and they'd call you in for—if you were late in the evening and it was supertime, they'd bring you in and you'd sit down and eat with them. Early in the morning you'd be changing equipment, even if there wasn't any activity going, you'd be changing out the

equipment—usually we had them at all the ranches. They'd come out and holler at you, Have you eaten breakfast yet?

And I says, No.

Come on in.

And you'd go in and have breakfast with them, or lunch. If they were having lunch, they'd fix you lunch if you was there at noon or whenever. Everybody. All the ranchers.

That's great. Do you have any particular memories of the Fallinis or the Uhaldes or the Cliffords, or Sharps?

Well, the Cliffords were, just like I said, just like one of the families. Joe Clifford Senior, when he passed away in 1968, the graveyard is right there on the ranch. I went to his funeral. I went to Marguerite's funeral—that's one of the daughters—Roy's funeral, Joe's funeral. Just all of them, about five of them, they were all buried out there at the ranch. All of the Fallinis, Joe and Joe Senior and Helen Fallini, they passed away; they're buried in Tonopah. And the Sharps. Went to all the funerals. Went to the weddings. Three of the weddings of the girls at Fallinis. They had a big wedding out there at the ranch. You couldn't believe it. Oh man. They had everything.

You were kind of part of the family.

Yes. They had the old buggy, one-horse buggy, and out on the road they started bringing the bride in, coming in on that old 1860 wagon, buggy, and brought her up there. It was really neat.

[00:15:00] *And you got to be there for that.*

Oh yeah.

Nice. Do you ever see them now?

Every so often. Oh, about every six or seven months I go out with Kenny Giles because he still does it, and I'll go in and—while he's changing the equipment, I go in and talk to the people.

Oh nice. Did they ever put you up on a horse out there?

I'm not into horses. When I lived on the farm, we had horses, and they were just pets. They were riding horses, but I never—I'd pet them, and things. But my cousins, when they'd come out from Denver, they had to ride, so I had to go out. We didn't ride them that much, and they didn't want to be—unless you ride all the time, a horse don't want—they want to be left alone. Well, I'd have to coach the horse in there with a bucket of grain. I'd have the bridle behind my back, and get down and reach out and grab its—leave the bucket down and grab its mane and put the straps over him. The horse would look up, oh no, he'd rear, and whoa, here, and grab a hold of him and put the bridle on and saddle him up for my cousins, and they'd ride. But I never rode much.

There's no need. I mean transportation's a hell of a lot easier.

I don't know why, I just never really got into that. When we had them, they were there. We always had two, three horses but see, my dad, he was a horse person, because that's what he—. He said the best thing he—when he got his tractor, it was an old John Deere with steel wheels. I was just a kid and barely remember it. And he says, You know something? Years later he said, I still like my horses. He still loved them. And even after he got his tractors and modern equipment, he still had horses. He had four Belgian plow horses.

No kidding. And were these the same horses that your cousins rode?

No, these were—

Oh, I was going to say. Good Lord. These were the plowing horses.

Plowing horses, yeah. They had feet like that [indicating size], these horses.

Good Lord, that's huge. That's like twelve inches across.

Oh yeah, they were big like that. I'd ride them. When I was a kid, two or three years old, he'd go out there, you know, plowing or cultivating or whatever, and he'd throw me up on there because they were just gentle. God, they weighed over a ton. Huge. Gentle, gentle animals.

What a way to grow up too.

Yeah. But I never really trusted the riding horses. They were pets. But they were too—the old plow horse, I loved. They never went anywhere. They'd just old slow plug along.

Yeah, I've been around enough horses to know that the look in the eye tells you a lot, and there's some we just don't ever want to get on.

Yeah. Leave me alone.

Exactly. So when you moved from Mercury to the university, that must've been an interesting transition, because now you're in town instead of being removed, so you're driving a little bit more, probably. Your facilities are different.

Yeah. We worked out of here, which wasn't too bad. I was home a lot. But we were still leaving on Monday and we'd still go out and stay out there and come back on Friday. We'd stay either in Tonopah or Ely or Caliente or Alamo. We'd keep mingling with the people, the townspeople. Like in Tonopah, we'd go to a lot of the meetings, go up to the schoolhouse and show the kids the radiation instruments and show them how they worked. Then the townspeople, they'd have their Lions Club meetings. We were invited to a lot of those and we'd give a film we'd show and demonstrate the equipment [00:20:00] we had. We did that in a lot of towns. We did that in Ely and Tonopah, and had a couple of big meetings in Death Valley at Furnace Creek, and over in California at—where is the Navy base there? China Lake.

Was this part of the Community [Environmental] Monitoring Program [CEMP]?

Even before, we did this. Then DRI [Desert Research Institute] and the community monitoring [CEMP], they went together and they'd have these town meetings. But we did this. This was done when the Public Health Service first came here in 1957. Vern [Vernon] Andrews would do a lot of that. That's another person. He lives in Pahrump. He's retired. He was a commissioned

officer. Lives in Pahrump. He's brilliant. Very smart. I bet he has an IQ of 180 or more. He is brilliant. You should talk to him. He's about my age also.

We'll look him up too.

He's probably in the phone book there in—what is Pahrump? Nevada Bell or whatever. I think it is. You've probably got that.

Yeah, we do. We'll look him up.

You can look it up. I don't have his—I used to have his number but I lost it.

Well, if I get it, I'll make sure I pass it on so you'll have it again.

OK, very good. Because I haven't seen Vern in a few years.

Oh, that'd be nice. So you guys are the liaisons, then, between the test site and the communities.

Right.

And it sounds to me like there's a level of, well, you are interested in protecting these community members, with information, with knowledge.

We'd tell them everything. We never held back on anything. You know, of course DOE says you don't say this, don't say that, or anything. When we were asked, we'd tell them. We never went right out and volunteered anybody, but if the person would ask us what we thought and what the damage was going to be, hey, tell them. We'd come right out and be very open with them, and that's what they liked. The people said, *That's what we like.* They didn't appreciate the people, the Army, because they wouldn't say anything, and then when they did answer the people, they'd lie to them, and that just doesn't work. And then we'd bring people in. For years we brought people in for the whole body count.

What's that?

Where we'd check their lungs and then had the medical [exam]. We brought a lot of the ranchers. I think we had all together thirty-eight families that we were bringing in for years and years. And Anita Mullen used to run that, and she passed away here last week.

Oh really. Oh bless her. I'm sorry.

Yeah. She had run that program for years and years. She was my supervisor for about four years also. And Omer [Mullen], that's her husband, he was with REECo for years and years. In fact, he worked in Building 155 with us, except he was with REECo.

And let's see. Well, I know we had a heck of a good time. It was fun.

I'm glad. It must've been because you never went into management. You always stayed on the ground.

Yeah, I enjoyed what I was doing.

I can appreciate that.

I looked forward to going on the trips to Mississippi and so forth because there was a lot of people I really enjoyed there, and all over, and just seeing the country, and you were doing a good job, and that was important.

Absolutely.

The only reason I retired, it just got—there wasn't anything going on anymore. Most of it was going into the Superfund, on terrorists, and I wasn't interested in things like that. And what can you do, waiting for a terrorist attack? You know, it's just—you're not—it's nothing. So I said, eh, I can't do this.

Sounds like you put in your time pretty good, though.

[00:25:00] I said forty-three years was enough. But if it had kept up, if we'd still had the community monitoring things and things like that, I'd still have been working there. But

everything—like the water program, it's going into the stewardship and somebody else will be doing it and sure, I could've went over there or some people with them and do it, but everybody—it's not like, you know—young people have their own ideas of—they want new things going on. So it's time to step aside and let the younger people take over and run it.

Well, what's amazing is that your career spanned that entire period. I mean you were there from almost the first, the initial decade, right there at the tail end of that first decade of testing, all the way through the very end.

I was there where the bombs was actually being built. I've seen them. I've seen them put together.

Is this at Rocky Flats?

Yes.

I don't know much about that facility.

It's funny on a device, they're not very big. It's just depending on what design they're—most of them are just a little bit bigger than a football, or I mean a basketball. After they came through—we called it the Dog House there—and monitored where they put all the thing together, the plutonium pit, and everything came together from all the buildings, zapped that thing, then you put the aluminum seal on it to keep all the contamination inside. The little thing that stuck out like that, the little rod, that's where they pumped the tritium into, into the vacuum in there. They'd carry it in the vault, which wasn't too far away, after it came out of the assembly, you monitored to see if any contamination was on it, swipe it and monitor. Then you had these little corks about that big [indicating size], and you'd set the bomb on those. That's where you'd monitor it. And then you'd pick it up and bring it into the vault. They had a big—I mean sealed—it was a vault, huge room, five times as big as this. I mean they were strung up. There

was tables all the way around, they were separated so they wouldn't go critical because of the pit, the plutonium pit. They were probably about five feet apart. You'd pull the bomb and bring it in there, set it down on these corks so they wouldn't roll, and then you'd have so many of them, they'd come in with a vehicle and bring them over to Building 91, and that's where they had the tritium cylinders that came from Oak Ridge [National Laboratory, TN, ORNL]. They came in on the white train.

The white train? Was it white?

Yes. And they'd bring them in there and guards and everything else. The tritium cylinders, they were cylinders that would come there and they'd put them in there and then that's where they pumped the tritium into them. After that, then you'd take that off and they were sent to, I don't know, Pantex—then it was Burlington, Iowa—and that's where they were armed with the high explosives.

And you got to see all of this.

I didn't get to see in there, the high explosives. I never did go to Iowa to see them.

But the process at Rocky Flats?

I've seen that, yeah.

Good Lord. That's something we won't really ever see so much.

No, Rocky Flats is gone now.

Is it? I didn't know that.

It's completely—it's a wildlife preserve now. The last building was taken—it was moved away about a year ago, and that's all grass. They reseeded with grass. A lot of the plutonium was all removed from Buildings 71 and 76 and 77. They didn't remove the buildings, they just crushed them, the concrete buildings, and then buried them.

Were they contaminated?

Most of it was all removed. A lot of the stuff that was imbedded in the concrete, I don't think you could ever get out. But I don't think it'll ever do any harm.

I can't imagine it being too awfully bad. Interesting.

But nobody'll ever be able to build there. They just made the whole, I think 26,000 acres, it's going to be a big—

Green area.

Yeah, it's going to be a natural reserve, because they got some lakes, and it'll be birds [00:30:00] and deer and antelope and all that, get to roam around in there. And the rattlesnakes; lots of rattlesnakes.

Yeah, you got to love that. I had one more question. It just occurred to me in you mentioning that Rocky Flats is gone. You came out to a facility here at UNLV, right, the EPA facility, when you moved into town—or first it was Public Health, and then it was EPA—but it didn't look like this.

Where was it located and what did it look like? What did the area look like?

Well, there was very few buildings there at UNLV; it was Southern Nevada University then. And those buildings were the first buildings that was put up. There were seven buildings, and we got to use them for seven years and then they was supposed to turn back to the university, but every seven years they just keep going back to the government, they just will probably keep them there.

Sure. Yeah. Are the ones—?

They're the old buildings that's there on Harmon.

I wondered about that.

Yeah, 944 East Harmon, those are the first buildings that was built there. We'd work out there, you look out the window over there and you'd see—I saw a bunch of quail out there, about maybe twenty or thirty of them walking around out there. Bobwhite quail, the ones with the little tassel. They're pretty neat. Then a couple of days later, seen some of the, what do you call those birds? Not quail but chukkar. There was a whole bunch of chukkar. And man, they took off. I was watching, me and this other fellow was watching, and I said, Man, you haven't seen those in a long time. I said, You see those in, you know, Central Nevada. And man, they took off and looked over there and here comes a coyote. He was down over there. He thought he was going to come in for a feast, but those chukkar had spotted him and took off. That was right there on the university. Of course there was nothing there.

And through your career, you watched it all being built up. That's so interesting. What are the connections between the university and the EPA that you know of?

Well, they had that deal where the government would build the buildings. This is in the sixties, and then they'd take them over, the university would take them over. The government built them and got to use them for seven years, with a contract picking them up for another seven years.

Well, they'd just keep picking them up.

So the arrangement is just facilities.

That's the way it was in the early sixties. Then somewhere on the contract they didn't do—the university, when it went to UNLV, they started getting their own money because the money was allotted evenly between Reno and Las Vegas. Before, it wasn't. They had to scrape for their money. See, most of it was going to the University of Nevada in Reno, and then when we both become even, it was easier to get money. You didn't have to mess with the government then.

Yeah, that's good. That's very good. Have you enjoyed living in Las Vegas?

I like it, yeah. Both the wife and I really enjoy it.

That's wonderful. That's wonderful. Well, let me check my notes, see if I got everything.

Well, while you're checking, let me get that address for Jack Coogan.

[00:33:54] End Track 2, Disc 2.

[00:00:00] Begin Track 3, Disc 2.

[Recording resumes mid-conversation.]

And that was the deer slaughter thing?

Yes. And those people that years ago that was attacked by that mountain lion up there, did he tell you about that story?

I don't recall that being in there.

Up there, I think, in Area 19 or 20, some of the REECo people, a couple of the guys and a girl, were out there walking around up above Area 12. A female mountain lion come and attacked the girl and one of the guys beat it off with his camera. So Kenny and one of the forest persons, he's a mountain tracker or mountain lion tracker, came in from Tonopah, that Kenny knows. They went up there and Kenny was unloading the horses out of the trailer because they were going to track this lion. Kenny's backing the horses out of the trailer and he hears *bang, bang*. Kenny turns around and the guy that he was with, the mountain lion tracker—

From the [U.S.] Forest Service?

Yes, walked back in the trees and the mountain lion came after him and he shot it. He had his pistol, and killed it. So they brought it in. Usually mountain lions run off. It weighed about eighty pounds and it was a female. So they brought it back and Kenny had to cut it open and find out. It was a female, but it was disformed. It had a small heart and different things like that, so

something must've happened to it when it was born and it never did really develop. That's how come it was looking for food and it was having a hard time finding food.

She was just low on the food chain of mountain lions.

Yes. Anyway, you got to talk—Kenny knows more about the story than—

That's interesting.

He's got a lot of stories, how he used to get the deer. He used to use a tranquilizer gun. He'd go at night and shoot the deer because you couldn't do it in the daytime because you can't find them. He'd use a spotlight and spot them, then he'd tranquilize them, shoot them, put the radio collar on them—

And so you'd track them.

Then he'd shoot them full of penicillin when you take the dart out, so it wouldn't get infected. But it'd take them about an hour-and-a-half, two hours to wake up. It was about midnight, about 11:30 at night, he said he went back to Area 12. He said he'd come back and check on the deer after he went back and got something to eat because they closed the cafeteria. So he got back there, I guess it was about one o'clock in the morning, looked around, all he seen was blood. So with the spotlight, with his truck, so he got down and checked it and about 100 feet away it was drug, he'd followed the blood up there. Doggone mountain lion had come in there after he'd left and grabbed the deer and ate it while it was sleeping. It hadn't woke up. So he said, *Hell, I learned one thing, so from then on he stayed till the animal woke up and run away.*

Right. That's too bad for that deer.

And then he was up there in one of the tunnels, I think Tunnel T, and it was fenced, and they had a shot in the tunnel. Water was coming out of there after, for months after, it comes out. Well, they have it fenced so nobody could get in there because the water is radioactive. So he's up

there hunting deer, and this is late at night, so he puts the spotlight down and comes and looks down in there. There's a big old mountain lion down with two cubs in there drinking the water.

Oh, and they don't know.

So he said he put the spotlight on them. Of course they look up. He said they look at him and he said then he got out of the truck to go over there by the fence, and he said boy, they took off and hit that fence and went and took off and they were gone.

Wow. That's amazing. He must've seen some amazing things, both of you guys.

Oh yeah. You've got to talk to him because he's got some very interesting stories.

We might go back and do that. Might definitely go back and do that. Now you didn't trap any animals. You just went out and collected other kinds of samples.

Right.

I just wanted to make sure I clarified that. How come they only did it on the test site, do you—?

Oh, Kenny followed the deer with an Air Force helicopter.

[00:05:00] *Everywhere?*

Yeah, clear up into Central Nevada, because they had radios on them, and down into Beatty area and wherever the deer would go. Most of them, during the summer, they'd move down—I believe it was in the summer—they'd come down in the test site and then they'd move out north, up above Tonopah, up at Belmont. You could track them because they had a radio collar on them. And every few months he'd get the Air Force helicopter and track them like that and find out where they'd move, would migrate to. Some would go a couple hundred miles. But then they'd come back to the test site.

And that's their migration pattern, so if you trapped them—put the collars on at the test site, they knew that this was part of their migration pattern.

Yes. And then they'd leave and then they'd come back.

OK, I understand.

Just like in Rocky Mountain National Park, there in the early fifties they tried to bring the moose back in. So they'd go load them up there in Wyoming, Jackson Hole and so forth, and truck them into there and turn them loose. The next year they'd be back in Jackson Hole. So what are we going to do? We got to figure this out. So they did. They got young ones, got the young moose, and brought [them] in, and they stayed. They didn't have enough sense to go home.

And was that how Rocky Mountain National Park got moose back?

Yes.

That's interesting. I kind of heard shades of that, but I never knew how they did it.

Yeah, that's how they did it.

That's very cool.

My buddy worked for them, so he told me the story.

I did think of one other thing. You mentioned Three Mile Island. Why were you guys sent out there? Because there were EPA officials—I guess I'm trying to understand how come it was your group that was sent out there?

Because we were the experts on radiation monitoring. The federal government in their—who controls the reactors, what agency? Nuclear Regulatory Commission [NRC]. I'm going to tell you a little story on them, probably why they called us.

We got there. They had some of their—one of [their] fellows was there, he had his vehicle. I had to go and pick up some milk sample and also check some animals and see about setting up for a slaughter. So one of the guys said, Well, I'll ride with you. He didn't know exactly where to go, so I said OK.

So went over to this one dairy. I said, You can go with me because I've got to get a milk sample over here. When we'd get a gallon of milk, we'd also take some readings with our handheld instruments. Mostly it was all background.

And he said, Boy, he said, that's interesting.

And I said, Yeah, it was just a dot per minute, I said, to show where we—milk samples and so forth like that, and we'd check the hay and the grain that was being fed. It was all background readings.

He said, Oh, I don't know how to do that. So he got in the trunk of his vehicle and opened it up and got his instrument out. It was a Geiger counter, an old one, and then he said, Something's wrong with it. Mine doesn't seem to work. He had two of them in there and none of them worked.

And I said, Well, let me take a look at it. I looked at it and you could see where the acid batteries was leaking on both of them. I said, God, man, I said, don't you ever get these things calibrated and the batteries changed?

He said, Gosh, I don't know. Those things have been in there for a long time. I guess it's been there for a year.

I said, and these are supposed to be the guys that are checking on these reactors.

[00:10:00] *Oh, and this is over at Three Mile Island?*

Yes.

Oh my gosh. And that's why you guys were called out, then, because you had the cutting-edge information.

Yeah, well, we had the only noble gas units probably in the country. As soon as we got there, we surrounded the whole island with the noble gas and the signs, and then we'd—the tanks, they hold—we'd get to 400 pounds of pressure. They could hold up to 1,000 pounds. They were

checked out there. They were old. Where we got the tanks was me and Jack Vandervort in the seventies, went to the burial where they keep the airplanes in Tucson, Arizona, the old planes?

I know exactly where that is.

Well, they got these big oxygen tanks in there, that they kept on the B-17 bombers. Well, we went through and got them all out of there. They had hundreds of these B-17 bombers lined up there. We took the tanks and the compressors. You can't get them anymore. So we brought, I don't know, we must've got forty tanks and about fifty compressors, and brought them back, and that's the compressors. Then our machinists and them, they got together, and maintenance people, and put them together and made the noble gas units. We pumped 400 pounds of thing over twenty-four hours or three days—you could set them up where you wanted to.

Now what does that do, the noble gas units? I know what noble gases are. They're the inert gases. How did that—?

Yeah, xenon [Xe] and krypton [Kr] and—the radioactive gases. Half-life is not very long but it traps and then we'd—. We set those up all around Three Mile Island, and every day, every twenty-four hours we'd go and change them out and bring them down to the airport and have them shipped back to Las Vegas, and then we had a big counting setup where they could count the gas here in the lab.

So those tanks would attract and trap the contaminated material.

Yeah, the radioactive gas that was leaking from the reactor.

I didn't know that. I didn't know that that's one of the techniques—

And then me and some the guys, we'd grab a grab sample. We'd go out—wherever the down—where the drainage winds would go from the reactor, they knew every day, usually in the afternoon, we'd go about six o'clock in the evening. When we'd all get back, the first people

that'd get back from getting their milk and their vegetation, two people'd go and get a grab sample. You'd know exactly where to go, the wind would go down, the drainage winds. Then you'd go to a house or someplace where you could get electricity, and you take the little orifices out. That way, you could pump—in about forty-five minutes to an hour you could get 400 pounds of pressure in one of the tanks, or two of the tanks; and just plug it in and turn it on and it'd pump—in about forty-five minutes you'd have 400 pounds of pressure in it. And that's what we called a grab sample.

And so you trapped this air in this tank.

Yes. You trapped the air in the noble—whatever was in there, and you'd bring it back and ship it off to Las Vegas. So me and one guy, we were really smart. One town there was called Falmouth, Pennsylvania—I called it Foul Mouth.

Oh gosh. That's funny. What a way to remember that.

In any case, there was a little bar there, and it was easy because we'd run the electricity through the window and we'd have a couple beers while we were waiting for it from outside. And I'm writing down and I said, What's the name of the town?

And she said, Falmouth.

And I said, You mean Foul Mouth?

She says, Yeah, this is Foul Mouth. You're right.

Funny. You guys did have the better end of that deal.

Yeah. And she was there and she said, You going to tell me what the results are of this?

And I says, Yeah. Sure.

She says, I tell you what, I'll give you a free beer if you let me know.

And I said OK. So boy, me and this other fellow, we sure liked to see the drainage winds go down towards that town.

Absolutely. So the same pattern of collection, you'd use around the Three Mile Island area. Was that the only incident that you had to be called out to do that job on?

[00:15:00] No, that was every day, when we got back. There was seventeen of us down there, the first go-around. Then we switched out, every three weeks the new people came in. I was there six weeks, and then I left and went down to Mississippi.

How long did that go on, for Three Mile Island?

For about two years that we had it and then the state took it over.

They never did run that reactor, did they?

No, it's back in. There was two reactors there. The one, it's still working.

The one is.

Yes. I never seen such a place like that. The housekeeping was absolutely terrible onsite there at Three Mile Island. I couldn't believe it. When we went in there we had our trailers right there next to the reactor. But coming in on there, they had pallets, they had piles of rubbish all over the place. I said geez, this is like it was under construction. And it'd been laying there since the plant was being built. I said, my God, it looked like they could be a little bit—housekeeping was terrible. And no wonder they had a damn accident.

Well, yes. I mean it makes sense.

Their housekeeping was terrible. We went on vacation when I got back; about six months later we went back to Colorado, the wife and I, to visit family and everything and we went over to Platteville, Colorado where they had the reactor there, power plant. It was on thorium [Th]. They

run theirs on thorium, and they were having all kind of trouble, but man, you couldn't believe it. It was absolutely beautiful. Everything, the lawns, everything, it was just absolutely beautiful.

Well kept?

Very well kept. But it never did really work out because for some reason the thorium—they were using thorium instead of depleted uranium [U]—and it never did work, so they—it's still there but I believe it's a power plant using oil now. It's not nuclear.

They converted it to a fossil fuel plant. And you were never called out on any other accidents?

Went to the fire in New Mexico. We were there for about a week, and we did a lot of sampling there. Los Alamos.

That was the Bandelier fire, right? I read about that.

Yeah, we were right in the middle of that. I was there and they'd come—we were changing one of the samplers out, me and Boo [James Richard] Harris, with some of the other state people, and just about, well, a couple hundred feet away, there was a big gorge down in through there, and I seen the helicopters coming. They were dropping that retardant.

The red?

Yes. I said I got to go take a look at this and take a picture of this, so I walked over there. And they'd come down through the gully like that and dropped it, and I said that's interesting. So I'm getting ready to take—trying to get the picture coming and I said wait till that helicopter comes in there. Well, he swooped around and I said man, this is going to be a wonderful shot. Just then he lets go with all of that. Well, the wind came up and it blew it all over and I said, ah geez. I didn't think much of it, I dusted off and went on. But boy, that really got to me. I got all choked up and so forth. Anyway, it cleared up.

Well, we got back and then doggone it if they didn't have—it wasn't too much that they had the fire in Washington, at Hanford, and we went to that. I was still congested up from this other thing. And we were there over the Fourth of July in Washington. The Fourth of July and it snowed. I woke up one morning and there's about an inch of snow on the ground. Of course it left right away. And every morning there'd be ice on the thing. I said I don't believe this.

That's when you know it's probably time to go back to the sun, when it's snowing in July

[00:20:00]. *That's really interesting. So you have been a part of a team, then, a specialist group that is called out to do these very specific but very important jobs.*

We went down to the islands or to the South Pacific, on the cleanup, 1972. Went there in January, the second of January we left, in 1972. I was there six weeks, and come back, and people didn't even recognize me. I was brown, black.

I bet. What island is this?

This was at Enewetak. We monitored all the islands surrounding the lagoon. It was absolutely beautiful. Oh, beautiful air. You couldn't believe it. We'd go out in, we called it a Boston whaler, the boat, to the different islands. Coming out where the Pacific Ocean would come in, into the lagoon, we'd go—there was an inlet coming like that [demonstrating] and we'd go through there with the Boston whaler. Well, early in the morning and also when we were coming back, the dolphins, eight or nine of them, would come, coming out through the water like this [demonstrating] and then they'd come just at the boat and come under it, under the boat, and come out the other side and just go out.

So they'd do this diving in and out.

Every morning and every evening, they'd come right at the boat, and every time I didn't have a camera.

But at least you remember.

Some of the guys had cameras and I told them to send me some pictures and they never did. But those islands, they were just absolutely beautiful. They're not very big. I think the biggest island is probably maybe 280 acres.

And you did cleanup there? What did that entail?

Well, they'd come in with backhoes and they'd dig trenches down, and then you'd take sand samples clear down to the coral reef. Most of all, see, those were all coral islands, and they were, I believe the Norwegians or Hollanders or something; they had those islands years ago. How they got the gravel on them, they'd put the soil from Norway in the bottom of their boats to keep them from rocking.

Sort of as ballast.

Ballast, yes. And then they'd bring them in there and put the soil down on the coral reefs. They'd have the coconuts and things like that. They were trading with the natives there for fish and things like that. Well, there's a lot of coconut trees and things like that. And one of the things, when we'd go have chow, they had a bar and chow and everything. You didn't pay for anything. Drinks were twenty-five cents. You had big T-bone—you'd have steaks that thick [indicating size] and lobster. Oh man, the feeding was good. But we'd go back—because they closed the bar at ten o'clock, so you couldn't stay there all the time and you'd have to go back to your barracks. But it was mandatory to wear hard hats when you went back because the coconuts would fall down. One guy didn't wear his hard hat and got hit in the head and it knocked him out. So after that, they had to wear the hard hats going back to your barracks.

That's hilarious.

You'd never think of that, would you?

No. I've been hit in the head with a couple of acorns but—.

And everybody went out—well, over on this one side there was a big patio where the cafeteria and the bar was, and everybody would go out there and we had the leftover steaks and things like that, we'd throw out in the ocean because the water came up—when the tide was in, it'd come right up to that patio. Well, big white sharks, I mean they were huge, some fifteen, sixteen, eighteen feet long, they'd come up there and *zoom*, grab that meat and take off and so forth.

Well, I didn't know this, because it was low tide when I first got there, they said, *We're going out and get lobster.* It was low tide. You'd go out there and you had your tennis shoes on and just your shorts. [00:25:00] You'd go out there with a plastic sack and the water was only about this deep [indicating depth] and you'd go out there and walk and see a lobster down there.

Well, you'd step on him with your tennis shoe and then you'd reach down and grab him, put him in your plastic sack. Well, God, there was a bunch of us out there, about fifteen of us that first night I was there, and this is what we're going to have then. So we must've got thirty, forty lobsters, just in a short time, in about fifteen, twenty minutes. So that's what we had, steak and lobster. So the next night, you know, the tide's in. They said, *well, if the tide goes out, we're going to go out and get some more lobster.* So I seen these guys throwing these steaks out because the tide was in, and there's these big white sharks. I said *not me, never again am I going out there.*

You're not going to stick your toes in that water.

I didn't even want to get off the Boston whaler after that.

I've seen great whites and I completely understand.

Oh, those things are—I couldn't believe it. Most of them are—the ones I saw at first was only maybe about four or five feet. But every once in a while you'd see one great big sucker come cruising through there.

No, thank you. Well, is there anything else, Mr. James, that you'd like to tell us?

Well, I think that covers it. If you can think of anything else later, just let me know, or call me up and I'll talk to you on the phone.

Likewise. If anything pops into your head ever, all you have to do is give me a ring. Thank you so much. It's been a pleasure.

[00:26:38] End Track 3, Disc 2.

[Recording begins mid-conversation.]

[00:00:00] Begin Track 1, Disc 3.

I believe this was about when I first got here, about 1962. It was in the summer and we'd been here about a year. We were out at Mercury and they had an underground shot and it vented. Me and this one fellow, we were going to follow it. We were together, two of us to a truck at that time; I was with Dick Kramkowski. He was a commissioned officer. Anyway, we went down through Death Valley, following the cloud, and over Emigrant Pass, and we went over there and hit the highway in California that goes into Mammoth Lake, the highway that goes in there.

You hit the 395.

Three ninety-five. We were taking vegetation samples every few miles and monitoring. We got into L.A. [Los Angeles] and periodically we'd run into the cloud, it depended on where we were. So we were downtown L.A. and Kramkowski was a basketball player, he loved basketball. Well, the Lakers were going to play that night. So this is about 4:30, so we went over there where they were playing there at the coliseum, and they weren't going to start till eight o'clock at night and

this is about 5:30. So we pull up there and we say well, we'll have a beer. We'll go in here and have a beer and see about where we can get a room to stay for the night and we'll check to see if we can get in to see the basketball game.

So on the way in, we noticed our scintillator sitting up on the dashboard started to have a reading. We were starting to get readings. So we sat out in the truck for a while, and bouncing around from .8 up to 1 mR and, picking up a little bit. So Dick said well, we'd better go in here and see about checking in, getting a motel room or seeing where one is close, and seeing if we can get tickets.

So we brought the scintillator into the bar, and we set it over there, and the bartender came over and we got talking to him. We bought a beer and he wanted to know what we were doing, so we explained everything, what we were doing. Man, that's really interesting, he said, and by this time it's down to about half an mR, inside the building.

So we're just kind of kidding along there and Dick said, Boy, we'd like to go to the ball game tonight.

And he says, Hey, he said, I've got tickets for it. So he said, You guys, here, he said, take them. Just leave your vehicle there, he said, it's not going to hurt anything. He said, I've got rooms back here. He said, You guys, when you get done, he said, you can just come in here, he said, have another beer, and you can stay here. Nice! I said man, this is really great.

So it was only about two blocks away, so we just walk on over there, go to the ball game, and come down and give this guy—he said, We don't know what seats, they didn't have no seats on these two tickets. No row, no nothing. But they were tickets. It was kind of—I don't know, so we give them to the attendant up there and he looks at the tickets and he says, Come with me. Walk on down there, right down at the basketball floor.

You had courtside tickets.

The metal chairs that the basketball guys sit on. We sat with the basketball players, with the Lakers basketball players. I sat right next to the center. He was a pitcher. I can't think of his name. He was also a professional baseball player, played for the Red Sox. He was a pitcher and he was a center for the Los Angeles Lakers, and I can't think of his name.

No kidding. I'll have to try to track him down. I bet it wouldn't be too bad. This is '62?

Nineteen sixty-two. And I said boy, this is something. And he said, what's your name? And I said, Don James and Dick Kramkowski. Sat right there watching—I don't even know who won the game, tell you the truth.

[00:05:00] *Yeah, it doesn't matter. Makes no difference.*

I said this is wonderful. Couldn't believe I sat right down there.

So after the game's over, didn't get no autographs, nothing, I was too excited. We went back and the guy had a room for us there upstairs above the bar and we stayed there. The next day we took off early in the morning. Guy had coffee and breakfast for us the next morning.

We took off and went down, and by this time the cloud is down in Mexico somewhere. So anyway, we end up and go down towards the Mexican border, right along the Mexican border—forgot the town that was there—and checking some of the vegetation with a Geiger counter, still getting about 1.5 mR on some of the vegetation. So we pick up some of the vegetation along the way that was contaminated. We'd go out with our Geiger counter, away from the truck, and if we found some vegetation that was contaminated, we'd pick it and put it in a plastic bag.

So we get down on the Mexican border. This is about two o'clock in the afternoon. So we decided, well. And our trucks were orange. Government trucks in those days were painted

orange. The government must've had fifty million gallons of orange paint. [Mr. James clarified the color of the paint after the interview via telephone—the color of the trucks was white.]

They probably got a deal. Geez.

So we're right on the Mexican border and Dick says, You know, he said, we should go on over into Mexico, he said, I like Mexican beer, and get a couple of cases of Mexican beer. I said, OK, I said, we'll park here and walk across. It was a little town, probably 1,000 people, I can't remember exactly where it was.

Just somewhere on that border?

He said, walk? He said he's driving and drove right over in there to go to this place in there, going to have a beer. Get two cases of beer, come back through the border. No problem going across, but coming across we were stopped. Government plates on there.

The guy says, Where you guys been? Well, we told him the truth. We told him we were doing radiation monitoring, and we had all these bags in the back full of vegetation, the back of the pickup.

He said, That's coming from Mexico. He said, You can't bring any of that stuff here, he said, any vegetation in the United States.

So we had to tell him—this is the Border Patrol—we told him what the situation was. We got the Geiger counter out and he said, Get on out of here. He said, Go on back there, he said. He said, I don't want to know anymore. Turned us loose.

So he went on back and then we went to Palm Springs for the night. We got there, it was about nine o'clock at night, still picking up vegetation at night out there with the headlights of the truck on.

Plants and—

Well, these were, what do you call them? Chaparral? Greasewood? The same kind of plant. It was in the spring, in April, and they were just in bloom and they were nice and sticky, so they just held the contamination. We snapped those off and we had bags of all that. Hands were all greasy, even though we had those gloves on.

So we got to Palm Springs and checked in there for the night, and the next day we went back to Mercury and unloaded most of all of our vegetation, because on the way at night, a lot of it had blown out. We didn't have a cover. But it's a good thing we stuck most of the information inside the bag. We just wrote it on masking tape, because we didn't have—we were scared of rain or something, so we put it on masking tape and then put it inside of the plastic bag. That way, they could read it through the plastic bag.

And that's where we lost a lot of information. When people said, well, how come a lot of this wasn't documented. When I was out in the field and you were doing the readings, sure, you had a log that you could write everything out, but you had to get away from the truck to take the readings. So I'm up at Queen City Summit on one of the Plowshare shots, doing a lot of the readings. What I'd do with the masking tape, [00:10:00] I'd strip it out and put it on my pants, then when you'd walk away from the truck to do the readings and the cloud, you could write the time and the readings, 2 mR, 40 mR, or whatever it is, you'd write on your pants leg. You'd get back in the truck and if you had time, you'd write in your log. Well, you were taking reading about every two minutes or every minute. Well, you couldn't, so what you'd do is you'd write it there, big strips like that [indicating size], you could write quite a bit on there.

Right. Foot-long strips on your thigh.

Yes. Then you'd just take a reading and write time and date and location. I was at Queen City Summit there for about three hours, so I didn't have to put the location; I just put the time and

the reading. So you could put a lot. Well, it's two o'clock in the morning, they finally turned us loose, and I said well, I'll take care of this when I get back tomorrow—the next day and I'll put it in the log sheet. I had some on the log sheet, but I said I'll make a new log sheet. Well, that one time, it was hot, and of course you sweat and I didn't notice that going back. We didn't have air conditioning; it's hot in the truck. So I got back and pulled it off and you could still read it, it was still pretty good, so I took my clothes off and showered and went to bed. Next morning, got up, everything faded. Couldn't read nothing.

That must've been hard.

And this happened to a lot of people, so a lot of documents, a lot of the things you lost that way. And it was just—you couldn't do nothing. You didn't have time to put it down into—on the paper.

Right, because the cloud is passing, and you've got to take these readings, so you're under a time crunch. And you're taking them frequently.

That's right. And you couldn't sit in the vehicle and do it. You had to get about twenty feet away to take your readings, and then come back to the vehicle. Well, for the first fifteen minutes or so, twelve, fifteen minutes, you'd do it. Then after, boy, you're doing it, going out there every minute and just couldn't log it in. It was just easier to stand out there and wait your minute and then write it down, then every five minutes, as the cloud started going down, then you started taking readings every five minutes, and then every ten minutes.

But the sheer volume that you were taking versus the small percentage that you—

Couldn't do it. When you were alone, you really had to have two people to handle it.

Well then, it's amazing that you got as much data as you did, and that it came intact, because you were working with some heavy, heavy loads, under very severe time pressure. I didn't know that.

It is. And then the next day you'd go out and do your vegetation and your water for several days after that. And pretty good. Then a lot of the times, you'd go out for weeks. Like one of the underground shots that vented, we would go out the valley road, that's going out the north end of the test site, and there's a road that runs from the highway clear across Kawich Valley and Gold Flats and comes out on the highway from Beatty to Tonopah. It's a bad dirt road. We'd go out there—I did that for a month after one of the shots—and take readings every quarter of a mile, all the way across.

That's an incredible distance.

Yes. And then come back into Mercury and have it all documented. Did that every single day, me and this one fellow, Stanton, Don [Donald] Stanton. He was a commissioned offer. He was from Chicago. Also Kramkowski was from Chicago. And Stanton, his dad, he made hats. I don't think he was the Stanton that made the Stanton—Stetson. But they were, I think, kind of related. That's what they did, he made western hats and also other hats there in Chicago. His father did.

We did that for a month and it was quite hard. He'd take a reading at three **[00:15:00]** feet and ground level: one was gamma-beta and then gamma-beta. And boy, that contamination stayed there. I think this is about 1962 also. It was there a long time, for over a month. Every day it'd go down slowly. We started out—a couple days after the cloud passage we started doing that, and I believe started out at about 600 mR (milliroentgens) beta, and then you'd open the probe and do a beta count—I take it back. It'd be 600 beta-gamma, and then gamma, you'd close the shield and it'd be about 300 mR. You'd cut it right in half by cutting the beta count out. Did

that for about twenty-six, twenty-seven days. Coogan might know something about that because he was the one that sent us out.

Did you ever—for example, with Baneberry. Baneberry was that big venting that I keep hearing about. And you must've worked on that, as well.

Yes. We were at Alamo, Nevada, several of us was. Then when it vented, [we] run the road from Hiko to Warm Springs, Nevada, back and forth; especially between Coyote Summit and Queen City Summit. Right there where Rachel is now, Rachel, Nevada. And that's where the cloud went right in through there.

So you took samples.

Yes. They had a highway maintenance station, it was called Diablo Maintenance Station, and I was there. On a lot of my shots, we had a lot of equipment out there that we run all the time. A lot of the shots, I was stationed there. On one of the Plowshare shots, it came up over Queen City Summit and down through Pinoyer Valley, then you could just see—I left Diablo and pulled up on Queen City Summit and we're looking down through Pinoyer and Sand Valley, and the vehicles were making runs across the road there, doing monitoring. One of the monitors was—Niles was his last name, George Niles—he'd come across, no air conditioning in these vehicles, and when he was coming through there, he was monitoring, he had his instruments on the dashboard. I could see him coming from several miles away, and the dust from the road just curling up around, that was all radioactive dust rolling around. He come pulling up to me and I said get—I was clean because I was over by Diablo and I'd came up there, I was going to monitor him to see how much he had on him. So he stops and I said, Get away from me, George. I said, You pegged out my scintillator. So I had to get the E-500B, the Geiger

counter, and come over. He had about 250 mR all over his truck and him and his hair. I thought that was funny. But this happened all the time. We had all kind of things like that.

It sounds like it, that you guys were always exposed.

And George Niles, he's passed away also. He had a heart attack about twenty years ago.

Oh, bless him.

We've lost a lot of people.

And we're sorry for that because this project came kind of latently to get a lot of the stories.

Well, you'll still have a chance. There's some people like Jack Coogan, and he can give you some insights on things right on the test site. Vern Andrews he was here with the Public Health Service in 1957 when it first started. He was one of the first one, a commissioned officer, that was here, and Vern will give you a lot of history.

Wonderful.

OK, I think I got it.

OK.

[00:19:32] End Track 1, Disc 3.

[End of interview]