

~~OFFICIAL USE ONLY~~

Elrod, Cranor

2005 NETS, LLC



**K-25 Oral History Interview**

**Date: 4/12/05**

**Interviewee: Cranor Elrod**

**Interviewer: Bart Callan**

DOES NOT CONTAIN  
OFFICIAL USE ONLY INFORMATION

Name/Org: John K. ... ENP/ Date: 4 Nov 15  
CISCO

As an ETPP Derivative Classifier, I have reviewed this document for classification and determined the document is UNCLASSIFIED. The review also resulted in a determination the document does not contain UCNI, ECI, or OIG.

DC: [Signature] Date: 6/12/07  
ETPP Classification and Information Control Office

~~OFFICIAL USE ONLY~~

May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552) Exemption number and category: #2 Circumvention of a Statute Department of Energy Review required before public release.  
Name/Org: Gary W. Snyder 721567 Date: July 13, 2005  
Guidance (if applicable): CG SS-4 September 2000

~~OFFICIAL USE ONLY~~

~~OFFICIAL USE ONLY~~

~~OFFICIAL USE ONLY~~

Elrod, Cranor

2005 NETS, LLC

[1:01:27]

[crew talk - audio testing]

Callan, B.: First question is always the hardest question and that's go ahead and state your name for me and spell your name out as you'd like to have it noted on the interview tape.

Cranor, E.: Cranor, C-R-A-N-O-R, E-L-R-O-D, Elrod.

[crew talk]

Callan, B.: Go ahead and tell me where you were born?

Cranor, E.: Well, I grew up on a farm in Milton, Tennessee, which is 15 miles out from Murfreesboro. You want me to look at you or look at the camera

Callan, B.: Look at me. Pretend there's no camera over here whatsoever.

Cranor, E.: I grew up on a farm, and I did it the hard way, plowed mules, did it all and I went to college in Middle Tennessee State, got a degree, taught school for a year, 70 dollars per month, so I was looking for a better job.

Callan, B.: What degree did you obtain?

Cranor, E.: BS in liberal arts. They didn't have engineering back then.

[1:04:01]

Callan, B.: That was at university again?

Cranor, E.: Middle Tennessee State, Murfreesboro.

[crew talk]

Callan, B.: We're going to talk a little bit about working at the K-25 facility overall. Why did you come to work at K-25? What attracted you to come? How did you hear about it?

Cranor, E.: Well, I was working at a power plant in Alabama, and they had closed down. So a friend and I saw this ad in the paper, and so we came up to check it out. And we went -- one thing I remember,

Elrod, Cranor

2005 NETS, LLC

the personnel director in Knoxville was named McKissick. So we asked him to give us some details of what we'd be doing. He said, "Sir, all I've been authorized to tell you is it's a tremendous experiment, and if it works, it'll revolutionize the world." And I thought it over and over how prophetic that was.

Callan, B.:

When you first arrived at K-25, what were your first recollections of the area? Were you transported up here or you drove up here, and what did you see when you came up here?

Cranor, E.:

A lot of dirt and dust and mud and whatever. The power house was the only thing in operation at that time. It went in operation in March of '44, and I hired in April '44. With Carbide and Carbon and Chemical Corporation which was a subsidiary of Union Carbide. Later, everything came became the main company, Union Carbide.

[1:06:26]

Callan, B.:

And what years did you work out at the K-25 site?

Cranor, E.:

What years?

Callan, B.:

Uh-huh (affirmative).

Cranor, E.:

1944 through 1962.

Callan, B.:

How did you get to and from work? What was that like, back and forth?

Cranor, E.:

It was terrible. I had to ride the cattle buses. It took an hour to get from here to K-25.

Callan, B.:

What was a cattle bus? Was it on a rail or --

Cranor, E.:

No, it was just a big old bus.

Callan, B.:

Did you meet any famous people out here or hear about them coming out here, when you were working at the facility, people like Oppenheimer or Einstein or --

Cranor, E.:

No. No.

Elrod, Cranor

2005 NETS, LLC

Callan, B.: What sort of perceptions did you get from people that didn't work here about the work that you did? When you went into town, did people ask you questions about what you did?

[1:07:23]

Cranor, E.: Don't give any. You weren't supposed to talk, and we didn't.

Callan, B.: If people inquired what kind of work was done here now, how would you describe it?

Cranor, E.: Did what?

Callan, B.: Basically, if I were just to ask you what was done out here at K-25, what you describe what was accomplished here?

Cranor, E.: Separating uranium that created the bomb.

Callan, B.: Do you want to tell me about some of your most vivid recollections of the time that you spent out here? You've been out here for several years.

Cranor, E.: Sixty years.

Callan, B.: And I'm sure during that time probably some interesting stories or interesting things that happened, or interesting relationships. Can you talk a little bit about some of those?

[1:08:18]

Cranor, E.: Well my wife and I got married in 1945. We raised three kids, and we've had a wonderful life here. To me, Oak Ridge has been a utopia because we are -- it's cosmopolitan. You understand what I'm saying? It's got everything that the big cities have got with less than 30,000 people. I don't think you can beat Oak Ridge in any way because the medical facilities, the schools, everything was within two miles of where we live.

Callan, B.: And was it always that way? Was it that way when you first came out here?

Cranor, E.: [laughs] Oh no.

Callan, B.: What was it like when you first came out here?

Elrod, Cranor

2005 NETS, LLC

Cranor, E.: Well, you just scrambled around the best you could. Walk through the mud. Everything in the old houses were coal fired, and it was a mess, a rough life to start with. It was still better than a farm.

Callan, B.: What did you like the most about working out at K-25?

Cranor, E.: Well I liked the power house, of course. That's where I worked.

[1:09:40]

Callan, B.: Let's talk a little bit about the power house. What is the power house, first of all? And how does it work into the whole picture of what was done up there at K-25?

Cranor, E.: Well, at that time, we were told it's a power house, the largest power house under one roof in the world. The electrical rating was 238 megawatts. That doesn't sound like much now. Bull Run is four times that. But to a country boy walking into a building like that, I was fascinated. The boiler room was eight stories high, had three boilers. The turbine room was 600 yards long with 14 turbines, 10 of them were 60 cycle, 4 of them were 120 cycle, if that means anything to anybody.

And I guess you'd just say over all, I was awed by the size of the facility.

Callan, B.: So it was a lot bigger than the facility that you worked in prior?

Cranor, E.: Oh yeah. No comparison. But that was the first time I'd ever seen a power house. And like the personnel guy said we can't promise you anything. Do you want the job? My buddy got a job at Eastman at Y-12. Carbide and Carbon offered me a nickel an hour more than Eastman, so I took it. [laughs]

Callan, B.: In looking back, we talked about what you liked the most, and you liked working at the plant. What did you dislike the most about working out at K-25?

Cranor, E.: Oh, I liked all of it.

[1:11:44]

~~OFFICIAL USE ONLY~~

Elrod, Cranor

2005 NETS, LLC

Callan, B.: Have you stayed in touch with the people that you worked with at K-25?

Cranor, E.: Most of them are gone, but I've tried to. See I'm 86 years old. I've been here 60 years.

Callan, B.: Let's talk about the working conditions and the work environment out there. How did you communicate with fellow workers in a secret facility? Basically were you able to talk amongst each other?

Cranor, E.: Oh yeah. But you didn't talk about the process. We talked about the power house only. Of course, we didn't know anything about the process at that time.

Callan, B.: How did you communicate to your family and friends, when you were working? I mean, when you came off of work, did people ever ask you what you were doing? What did you tell them?

Cranor, E.: Well, we would play bridge. We wouldn't talk about the job, not at all. You never did.

[1:12:56]

Callan, B.: What were the physical working conditions like inside the power house?

Cranor, E.: Oh, they were good. Union Carbide was absolutely a great company. Worked with them 40 years and had no complaints at all.

Callan, B.: Were there particular rules or regulations or things that were very, very important to follow when you were working out there?

Cranor, E.: What you see here and what you hear here, leave it here. That was our instructions.

Callan, B.: What was your supervisor like out there?

Cranor, E.: Oh, he was okay.

Callan, B.: What about your co-workers? Did everyone pull their weight out there?

Elrod, Cranor

2005 NETS, LLC

Cranor, E.: Oh, we had a good group. We had a wonderful group.

Callan, B.: Did you eat at the facility?

Cranor, E.: Well, they had a little cafeteria across the street at the thermal plant, and we ate over there for a while. And after it shut down, we carried our lunch because we were isolated from the main cafeteria.

[1:14:09]

Callan, B.: Describe to me what the cafeteria was like.

Cranor, E.: It was just a standard cafeteria, I guess. I don't know any other way to describe it.

Callan, B.: Did they have health facilities available out there?

Cranor, E.: Oh yeah. They had a dispensary.

Callan, B.: Was health care provided for you and your family?

Cranor, E.: No, for me.

Callan, B.: Just for you?

Cranor, E.: Yeah.

Callan, B.: Were you married at the time?

Cranor, E.: Not when I first hired in. I married a year later.

Callan, B.: And did you meet your wife out here?

Cranor, E.: No, I met her back home on a blind date.

Callan, B.: What kind of emphasis did the company put on safety? Did they regularly do health checks?

Cranor, E.: Oh yeah.

Callan, B.: What kind of health monitoring did they do? What kind of health checks?

OFFICIAL USE ONLY

Elrod, Cranor

2005 NETS, LLC

[1:15:07]

Cranor, E.: Just a standard annual review of everybody. I think my badge number was 1815. That means I was a number they hired in at that time.

Callan, B.: Let's talk a little bit about the Manhattan Project. You were there during that time, about 1944, when you started working there. Technically the Manhattan Project ended in 1945. You've kind of answered this. What was your understanding of the function of the K-25 facility during World War II? What did they tell you, you were out here doing?

Cranor, E.: I said it was a tremendous experiment. And I didn't know anything of K-25. I knew Joe Dysktra real close as a friend, but we never discussed it.

Callan, B.: While the Manhattan Project was going on, before the bomb was dropped, did you have any indications to what you were doing was related to the war?

Cranor, E.: Yeah. We knew it was related to the war but we didn't know how. We had a guy in the lab, McCloskey. Every night he'd go to the library, trying to figure out what was going on.

[1:16:45]

Callan, B.: He worked at the power plant?

Cranor, E.: Yeah. We had a lab over there in the power house.

Callan, B.: What was your reaction on August 6, 1945, when the bomb was dropped? Did everybody know at that point?

Cranor, E.: Yeah.

Callan, B.: What was day like for you?

Cranor, E.: It was great! Everybody said, "Hooray, hooray. We whipped the Japs," they said.

Callan, B.: And so how did you know that day that what happened was directly related to what you guys were doing here?

Elrod, Cranor

2005 NETS, LLC

Cranor, E.: Well, they said then it was the result of the work done here.

Callan, B.: If you could relive those years in Oak Ridge during the war, would you change anything?

Cranor, E.: No. It's been a wonderful place to live. It's been a utopia for us, really. I said the other day it was a fairyland. You can't beat Oak Ridge. Maybe I'm overemphasizing it, but that's the way I feel.

Callan, B.: How do you think history will view the Manhattan Project and its outcome?

[1:18:08]

Cranor, E.: Oh, I don't know. I guess the experiment worked.

Callan, B.: You continued working at the power plant for how many years?

Cranor, E.: Until 1962, until they shut it down.

Callan, B.: How did your work change between, during the whole span of the time you worked out there from 1944 to 1962? Did you see a lot of changes occur in the power plant?

Cranor, E.: Not really. You're producing power and you got to keep it running. Maybe I'm not helping you much. I don't know.

Callan, B.: What types of jobs were you associated with? Describe to me a typical day and the different sorts of jobs you did out there.

Cranor, E.: Well, I was primarily in charge of the fuel oil, the coal and the gas. And we bought a lot of coal and I was in charge of the lab. I was called efficiency engineer, I believe, that's take care of the coal and the gas and the water treatment and that sort of thing. And I think I had six chemists under me.

Callan, B.: It just popped into my head from one of the previous interviews. I'm kind of remembering now some of the other things that people have said that were kind of power related. I was told, I forget by who, that there were a couple of power outages during the period of the operations of the K-25 facility. I don't know if you have any recollection of the power outages occurring and what that experience was like.

~~OFFICIAL USE ONLY~~

Elrod, Cranor

2005 NETS, LLC

Cranor, E.:

We had an explosion. A steam line -- I think there was 160 schedule pipe separated on the floor. And they said in 90 seconds the building was completely filled with steam. Everybody got out except one guy. He was up on the sixth floor, and he was hanging out the window, but he made it. After that, they spent 3 million dollars replacing carbon molypipe with chrome molypipe; three million dollars. They only operated two years and then they shut it down. So it turned out to be a waste of money.

Callan, B.:

What was your most challenging assignment that you had to do during your work career?

[1:21:16]

Cranor, E.:

Oh, I don't know. I guess water treatment maybe. I don't know.

Callan, B.:

What was important about the water treatment? What had to be done?

Cranor, E.:

You had to treat it chemically so -- take care of the boilers. Take care of -- add the chemicals to take care of the hardness in the water and steam that went to the turbines had to be pure. Take care of that.

Callan, B.:

When you came out to K-25, was it still under construction? Was there still a lot of construction going on?

[1:22:06]

Cranor, E.:

Oh yeah. Like I say, the power house was the first thing in operation. They put one boiler in service in March of '44. That was the first thing that had gone in service in the whole area. So naturally there was a lot of construction left.

Speaking of construction, time was of the essence. Money was not importance at all. One of the boilers was already installed in Chicago and they tore it down and brought it there. I was told that one of the turbines was on the ship. They took it off and brought it there. They could do anything they wanted to without question of money.

Callan, B.:

Do you have any other recollection related to construction because there aren't a lot of people that have talked to us about construction or witnessed the construction period? Is there a trend

Elrod, Cranor

2005 NETS, LLC

that kind of sparks your memory about different things that are interesting? What was it like? There were all kinds of people out here. What did you live in?

[1:23:23]

Cranor, E.: Oh yeah. Seventy-five thousand people, TBUs and all kind of temporary shacks. I remember the first house we got was an A house, 724 square feet, two bedrooms. We were tickled to death to get it.

Callan, B.: Tell me more about "A" houses. What were they like to live in?

Cranor, E.: They were just two bedroom, a living room, and a kitchen. That was it.

Callan, B.: Did you have a heating?

Cranor, E.: We had a coal fired furnace that spit out more ash than heat.  
[laughs]

Callan, B.: After you lived in an "A" house, where did you live after that?

Cranor, E.: We moved to a "B" house, which is the same thing, two bedroom, a little larger. You could get -- if you had a son and a daughter, you could get a three-bedroom. But if you had two boys, which we did, you could only get a two-bedroom. That was the restriction then.

[1:24:42]

Callan, B.: It was almost like would want to have more kids so you could get a better house.

Cranor, E.: [laughs] I guess so.

Callan, B.: How quickly was the facility constructed, and what was it like seeing it go up?

Cranor, E.: The plant or the buildings?

Callan, B.: Just the whole site? Everything got put together fairly quickly.

~~OFFICIAL USE ONLY~~

Elrod, Cranor

2005 NETS, LLC

Cranor, E.: Well, they said they completed every 30 minutes. It was going pretty fast. I don't know the time table on the power house. I think it started in '43 and went into service in '44. So it was around-the-clock construction.

Callan, B.: Do you ever hear any stories of construction difficulties that they encountered and how they overcame it?

Cranor, E.: No, not really.

Callan, B.: I've heard several different stories on this, and we'll see what your take is on it. Do you know the facility was named K-25?

[1:26:04]

Cranor, E.: You're going to have Joe, I guess. I'm not sure.

[crew talk]

[End of Tape 1, Begin Tape 2]

[2:00:10]

[crew talk]

Callan, B.: As far as the organizational structure of K-25, where unions out there? Were you union?

Cranor, E.: There were unions, not initially but eventually. So-called management was non-union.

Callan, B.: During the lifetime of K-25, did you see any conflicts that occurred between management and the workers and the unions?

Cranor, E.: There was always a verbal battle. We didn't see much of it in the power house, but there was more of it in the process area.

Callan, B.: Were there any walk-outs or strikes?

Cranor, E.: Oh yeah, we had some strikes. We had one guy in the power house -- I don't know if you're interested in anything like this or not but -- he -- they had a union leader at the gate. This guy was named Jake Stearns. The union leader said, "Where are you going, old man?" He said, "I'm going to work, and I got the difference

Elrod, Cranor

2005 NETS, LLC

right here.” And he came to work, but he stayed in the plant during that whole strike time because he was afraid somebody would harm him if he went out, you know.

[2:02:03]

Callan, B.:

So he was the one person that --

Cranor, E.:

The only person that stayed in the power house.

Callan, B.:

How long did the strike occur?

Cranor, E.:

I think --

Callan, B.:

This is the kind of stuff I like to hear because this is really interesting. How long did that strike occur?

Cranor, E.:

Three or four days. I'm not sure. I want to say 72 hours, but I'm not really sure.

Callan, B.:

Interesting.

[crew talk]

Callan, B.:

What about women that worked at the facility or women at K-25, what sort of jobs did women work and how were they treated?

[2:02:48]

Cranor, E.:

They were clerks mostly. I had a secretary; in fact she is still here. I started to call and ask her if she wanted to come.

Callan, B.:

What's her name?

Cranor, E.:

Martha Moreville.

Callan, B.:

Did they have a special dress code for women?

Cranor, E.:

No. No.

Callan, B.:

No. Were women treated differently? Were they treated respectfully?

Cranor, E.:

Very respectfully.

Elrod, Cranor

2005 NETS, LLC

Callan, B.: What about minorities? What kind of minorities were out at the facility? What sort of job roles did African-Americans have?

Cranor, E.: Well, probably lower level jobs, coal handlers and that sort of thing.

Callan, B.: And how were they treated working out there?

Cranor, E.: Okay. Everybody was respected.

[2:03:57]

Callan, B.: How many people were working in the power plant total?

Cranor, E.: Oh gosh! I don't know. Off the top of my head, a couple of hundred maybe. I don't know. Maybe around totally.

Callan, B.: I've got some questions about living in Oak Ridge, and I'd like to see if you'd like to talk about it. If there are any topics that I'm not bringing up that you want to bring up, please feel free to bring them up. Can you talk a little bit more about Oak Ridge and about the secret city? Was the town fenced and secured? Could you leave to visit and shop in nearby towns?

Cranor, E.: Oh, you could leave but nobody could come in unless they had a badge, not even family. And another thing nobody locked our houses. Everybody felt safe.

Callan, B.: So, give me some of the other positive aspects about living in Oak Ridge.

Cranor, E.: Well, like I say, it's cosmopolitan, good schools, good medical facilities, theater, musical programs, all the arts that you can think of, we had it right here. And people that came here were -- I'm not bragging, but they were above average in education and intelligence level was high. Most of us were in our 20s, eager to go. [laughs]

[2:06:11]

Callan, B.: What did you do for recreation and entertainment? What did you do after work, or what sort of things did you do on the weekends?

Elrod, Cranor

2005 NETS, LLC

Cranor, E.: Well, they had dances, tennis court dances. I don't know anything particular. We liked to play cards a lot. We went to Knoxville maybe once a month to eat at Regis, and we had to ride a bus. Nobody had a car. Everything was by bus.

Callan, B.: Did everybody ride the bus?

Cranor, E.: Yeah. I don't remember any cars, maybe a few but not many.

Callan, B.: What other activities were there to do around Oak Ridge? Was there hiking, horseback riding, other things that people do during off hours?

Cranor, E.: Back then, they didn't do much of anything except normal living.

Callan, B.: Is there anything else that is special or unusual that you would like to discuss regarding Oak Ridge or the secret city that we haven't covered?

[2:07:53]

Cranor, E.: Of course, the medical facilities were first rate. We've got it all here; heart surgery and all of it.

Callan, B.: Okay. Is there more you want to talk about as far as the medical facilities? Where were they at? How were they set up? Did doctors make house calls?

Cranor, E.: The government built a hospital, and it was there for everybody. The doctors did make house calls. At that age, a lot of babies were being born, quite prolific.

Callan, B.: You gotta get a bigger house.

Cranor, E.: [laughs] In some cases, yes.

Callan, B.: So how come you never left?

Cranor, E.: I liked it. Like I said, you couldn't beat it.

Callan, B.: It just seems like most people don't leave.

Cranor, E.: Even the Yankees stayed. [laughs]

~~OFFICIAL USE ONLY~~

Elrod, Cranor

2005 NETS, LLC

Callan, B.: What about alcohol?

Cranor, E.: I never drank any.

[2:09:16]

Callan, B.: Never. Okay, just out of curiosity.

Cranor, E.: But it was hauled in, in the darkness, I guess, especially -- they used to say the northern people more so than the south, of course.

Callan, B.: Talk a little about that because you mention Yankees and the southerners. Was there sort of a difference or any tensions going on between people that were brought here that weren't really native to the area?

Cranor, E.: Well, think about the -- here's the situation. General Groves came and picked the site, I think, in one day. And in three weeks' time, people were told to move, to get out and pay the bare minimum for their property. So you know you're going to have reaction. I think some of them were 50 dollars acre, maybe. And Clinton especially resented -- there were a lot of friction at times between Clinton and Oak Ridge. At one time, they had to quit playing football because of the fights that always ensued. So yeah, there was a lot of friction. Of course, most of the upper management was Union Carbide, the north; that's where the company was. But we did have some good management.

Callan, B.: So did a lot of the people that were initially here, did they get displaced to Clinton?

[2:11:19]

Cranor, E.: Did they what? Get dis --

Callan, B.: The people that lived here in Oak Ridge, before the facility was constructed, the people that got displaced, the people whose farms got purchased, a lot of them ended up in Clinton?

Cranor, E.: Well, it's surrounding territory. Anywhere they could find a place to live. You can imagine being told to move from a lifetime farm in three weeks. That's the way it happened.

~~OFFICIAL USE ONLY~~

Elrod, Cranor

2005 NETS, LLC

Callan, B.: Do you know of any people that were displaced back then that are still here?

Cranor, E.: No.

Callan, B.: Tell me what future generations should remember about K-25 and what was done here.

Cranor, E.: What they should remember?

Callan, B.: Uh-huh (affirmative). What should history scribe down as far as what was done. What should people remember about this place?

Cranor, E.: It was one of the main reasons that Japan was overcome, I'd say. They said that Germany was only six months away from doing what we did. So, if it hadn't have been for the bomb, we, you, him could have been working for Germans and/or Japan or both.

[2:12:56]

Callan, B.: And that's a significant thing to think about. If you were writing a story about Oak Ridge or about K-25 or about power house, what topics would you cover?

Cranor, E.: I guess how quickly it was all done. I don't see any way we could do it now with the EPA and all that.

A lot of -- let's see, DOE, AEC, or whatever you want to call them, were actually the managers over the plants. So a lot of interaction between plant managers and DOE, and this was carried on mostly over the telephone in a very respectable relationship between both outfits.

Callan, B.: So why do you think something like K-25 could have been constructed and accomplished back then, whereas now to put something together like that in a year's time, it would just --

Cranor, E.: It's just unbelievable, really.

Callan, B.: What was it about the environment or about the way the people worked together?

[2:14:28]

Elrod, Cranor

2005 NETS, LLC

Cranor, E.: They didn't have any concerns about the environment. Like I said in the power house, get a turbine. Found one like that on a ship. We got it. Get a boiler. Find one up there and they got it. They didn't have any restrictions. Groves was a wonderful manager.

Callan, B.: Did you ever meet Groves?

Cranor, E.: No.

Callan, B.: Is there anything else you want to talk about before we wrap up the interview?

Cranor, E.: Don't think so. We've covered the town and the power house, and that's about all I'm familiar with. I mentioned Carbide and how much I thought of them. When you get ready to retire, come here.

Callan, B.: I think it's a great place!

Cranor, E.: [laughs]

Callan, B.: I'm not used to seeing green grass at all or trees. I enjoy it every time I come out here, and the pace out here is just more --

Cranor, E.: Relaxed.

[2:15:45]

Callan, B.: -- relaxed. It's not necessarily slower, but people just seem a lot friendlier. It's not as tense an environment as I'm used to. The only other thing I want to ask you is do you have any other suggestions for potential interviews that we can contact?

Cranor, E.: I gave you Martha.

Callan, B.: Right.

Cranor, E.: I'll call her and tell her I gave you her name.

Callan, B.: Do you know her number off the top of your head?

Cranor, E.: No. I'd have to look it up.

Callan, B.: Okay. I guess that's it. I really appreciate you interviewing.

~~OFFICIAL USE ONLY~~

2005 NETS, LLC

Elrod, Cranor

Cranor, E.:

Herb Snyder might --

[End of Interview]

~~OFFICIAL USE ONLY~~