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**K-25 Oral History Interview**

**Date: 5/17/05**

**Interviewee: Guinn Marrow**

**Interviewer: Bart Callan**

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[crew talk]

[1:01:03]

**Callan, B.:**

-- through 1963. I want to say three. 1963 or 1964. '64 was when they put the facility on standby. And I don't know -- You know, how many -- If you worked there the entire time or not. But basically I'll have questions that will be specific to like the Manhattan Project or the construction period. And just whatever stuff that you're comfortable talking about, please feel free to do so.

The way the interview goes, it will be just like you and I are having a conversation back and forth. Don't worry about the other equipment around here. And you don't want to speak directly to the camera. Speak like you're talking to me. If you need to pause and then think about a question before you answer it or whatever, don't just -- You know, go at your own pace. I don't want you to feel like you're rushed or everything has to come out right the first time. If you need to pause and restart again, that's fine as well. We just want you to be comfortable.

**Marrow, G.:**

Oh, one thing I want to get it straight. I worked, like I said, started February 6<sup>th</sup>. And I worked two or three months. Got drafted in the Army and went to Germany. And I was gone two years. Come back in I think maybe in July of '47 -- and they hired me back.

**Callan, B.:**

Okay. [crew talk] Let me start you out with the hard question here, and that is to go ahead and state your name and spell your name out for me like they have it preserved on the tape.

**Marrow, G.:**

Guinn Marrow. G-U-I-N-N M-A-R-R-O-W.

**Callan, B.:**

Okay. And how old are you, if you don't mind me asking?

[1:02:54]

**Marrow, G.:**

Seventy-eight.

**Callan, B.:**

Okay. And let me ask you a few questions about your background. Tell me where you were born, and you can expand on that if you'd like, too.

**Marrow, G.:**

I was born in Polk County, Tennessee. Then moved to Monroe County when I was seven or eight years old. Lived in Monroe

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County 'til, well, lived there 'til I got married in '53 and moved to Oak Ridge.

**Callan, B.:** Okay. And what kind of work did you do prior to working over at K-25 at Oak Ridge?

**Marrow, G.:** You're talking about for the railroad work?

**Callan, B.:** Yes.

**Marrow, G.:** Okay. I worked for J.A. Jones on the railroad for -- 'til I was 18 years old and they hired me at Union Carbide.

**Callan, B.:** Okay. And what kind of railroad construction were you doing?

**Marrow, G.:** Ah, just building railroad. Laying cross ties. And that work at that time, you done it all by hand. And even laying the rails. And they buddied me up with a black feller. They brought in some black people from Alabama. And I was buddied with him most of the time. Driving spikes with a hammer. And that's about it on that.

[01:04:58]

**Callan, B.:** So were you involved in building some of the railroad construction that's around Oak Ridge?

**Marrow, G.:** Yeah. All around the plant -- in there --

**Callan, B.:** Where did you attend high school? And did you graduate?

**Marrow, G.:** No. I quit school, but later on I got a GED.

**Callan, B.:** Okay.

**Marrow, G.:** I went back to school and --

**Callan, B.:** So why did you come to work at K-25? What attracted you to come up here? And how did you hear about it?

**Marrow, G.:** Well, I was one of 11 kids in our family. My daddy raised us on a farm -- a rented farm, not ours -- and so all of us went to work as prior as we could to try to help the family out.

**Callan, B.:** And so how did you first hear about work happening up here?

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**Marrow, G.:** Yeah, that was my first year.

**Callan, B.:** Okay. And how did you hear about it?

[01:06:14]

**Marrow, G.:** Well, you're talking about how did I get to work? Or --

**Callan, B.:** Yeah. Just basically how did you hear that there was work going on up here? And what was --

**Marrow, G.:** Well, they was running a truck to Tellico Planes and picking up people to come to work. Hiring them in. They'd hire anybody if it was one-legged, one-armed, whatever. And a buddy of mine told me one day he said, "Why don't we go up there and see if we can get a job." We were 14, 15 years old.

So we caught the truck the next morning and come up here, and they hired us right off.

**Callan, B.:** And what did you first think about the place up here when you first arrived up here with all the activity going on?

**Marrow, G.:** It's hard to understand. Everywhere you go you had to wade mud up to your ankles or knees sometimes -- nobody knew what was going on -- nobody cared what was going on. Get a little money is what all they needed.

[1:07:42]

**Callan, B.:** Were most of the construction crew mostly local people from around here? Was there a lot of ethnic --

**Marrow, G.:** No. The ones I was with, a feller by the name of Smith was the boss. And he had originally -- he lived in Tellico Plains, and that's the reason why he would send a truck up there. Government furnished a truck to go up there and pick up people that needed a job -- and of course everybody needed a job at that time almost.

And we worked in his crew. All of us stayed together pretty much so. Some of them was one-legged and one-armed and had different disabilities.

**Callan, B.:** Pretty diverse backgrounds that all the workers came from? Was there different ethnicities and whatnot?

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**Marrow, G.:** Background?

**Callan, B.:** Did they have people from all over the country working on this?  
Or was it --

[1:08:57]

**Marrow, G.:** Oh, yeah. They brought people in here. A lot of people from down south. Brought them in and gave them jobs. For all the labor jobs and things like that and if you had a skill like crane operation or anything like that, they really needed them -- heavy equipment operators.

**Callan, B.:** Give me your background working here again. So what years did you work at the K-25 site? I guess you said in 1945 was when you started up here?

**Marrow, G.:** Yeah. I started there and worked until March, the end of March of '90.

**Callan, B.:** Okay. So you were how old when you started working out here?

**Marrow, G.:** I was 18 when I went to work for Union Carbide.

**Callan, B.:** Okay. How did you commute back and forth from work? What was that like?

**Marrow, G.:** Uh, well, like I said a few minutes ago, we rode in the back of a truck. Worked nine hours out here, and we'd leave home at four o'clock in the morning and get out here and go to work at -- I don't know whether it was seven or eight o'clock, but anyway, we'd work nine hours. Then we would have to ride that truck back, winter and summer.

[1:10:45]

**Callan, B.:** Was this one of those trucks that people -- I've had some other interviewees that talked about what they call Cattle Cars?

**Marrow, G.:** Yeah. No. It was just a flat-bedded truck with a canvas over the top. And we were in the back. It had bench seats. Now they put on buses later on though. I'd say about half way through that they put buses on. In fact, they had four buses running from Madisonville and Tellico Plains out here hauling people in. They

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only charged about a dollar and a half a week to ride the bus.  
[laughs]

**Callan, B.:** What about people that didn't work or weren't involved in the construction or what was going on at the facility. What did they think about all the activity that was going on in Oak Ridge? Did you ever hear anything?

**Marrow, G.:** Well, I don't -- see, they build hutments for people that had families to live in. And they had the -- some grocery stores, some dry good stores and things like that. Ice factory where they get ice. And cafeterias. They had a bunch of cafeterias to go to and eat for less than a dollar. [laughs]

[1:12:30]

**Callan, B.:** Did you live in Oak Ridge itself, or you were being commuted in every day?

**Marrow, G.:** Yeah. Well, later on I got a room in the dormitories. They had these dormitories. And that's when I worked for Union Carbide. And they run buses from Oak Ridge to down the plant to haul people there. That was the good thing about it. It was close to work.

**Callan, B.:** What were the dormitories like living in there?

**Marrow, G.:** Well, you had a double room or a single room. You had your choice a lot of times. And I always picked the same room because I'm more of a private person.

**Callan, B.:** You were here during the actual construction when they were putting the whole facility together and putting it up, right?

**Marrow, G.:** Right.

**Callan, B.:** I guess there was sort of a tent community I guess.

**Marrow, G.:** That's right.

**Callan, B.:** Do you want to talk a little bit about what that was and what that was like? Kind of give me your description of the place during that construction time, because you know, I really don't have familiarity except for the picture that you can paint for me as what the place was like.

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[1:13:56]

**Marrow, G.:** Well, up and down the turnpike there was tents spread out everywhere. And people lived in tents, and they started building these little flat top buildings. And after we got married in '53, we got a one-bedroom flat top and lived in that 'til we had a kid. Then we turned in and got a two-bedroom flat top after a couple of years.

**Callan, B.:** Did you meet your wife out here while working?

**Marrow, G.:** Pardon?

**Callan, B.:** Didn't you say after you got married in '53? I was just curious. Did you meet your wife out here when you were working?

[1:14:52]

**Marrow, G.:** Yeah. She was working in Jackson Square in the cafeteria. But she originally -- We was going together already -- she's from Madisonville.

**Callan, B.:** So did you pretty much see the facility come up from nothing from where they started laying the slab and put the whole thing together?

**Marrow, G.:** Well, they was all ready when we went to work. They'd already been working and grading and buying the land and everything. Had all that a going when I come in. And a lot of the -- like the old K-25 building, they was already got some sides up on it and a roof.

**Callan, B.:** What were your first thoughts when you first saw that building being put up? And describe it for me.

**Marrow, G.:** [laughs]

**Callan, B.:** Because to say I've never seen this place before, and I have had the opportunity to go out there and look at it, but for somebody who has never, ever seen this, how would you describe the K-25 building in its construction?

[1:16:04]

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**Marrow, G.:** We didn't ask no questions -- we just tried to do whatever boss wanted us to do. And we didn't ask why or nothing. We just went to work. And whatever.

**Callan, B.:** Was it an impressive site to see, that building?

**Marrow, G.:** Well, I'd never seen anything like it before. And --

**Callan, B.:** Well, tell me about it. How big was it?

**Marrow, G.:** Well, the K-25 building's a quarter of a mile wide and a mile long. It's in a U-shape.

**Callan, B.:** And how many people were out there working on it?

**Marrow, G.:** Oh, no. [laughs] It's just like New York City. If you walk and didn't watch where you were going, you were going to bump into people. There was that many. I couldn't even imagine how many worked out there.

**Callan, B.:** Were people working out there around the clock?

**Marrow, G.:** Around the clock, yeah. That's when -- Well, when I first hired in at Union Carbide I hired in as a welder helper. And went there and sat in the welding shop two or three days, and the guy come along one day and asked me what my classification was. And I told him welder helper, but I never had a job to do. And he said, "Well, do you want a dime raise?" I would have -- making 75 cents an hour at that time for welder helper. I said, "Yeah." [laughs] He said, "Well." He said, "You going to be changed to maintenance mechanic." Or a milright -- a milright at that time.

I said, "That's all right with me." He handed me a speed handled wrench, and he said, "All these manhole covers here, I want you to -- When somebody wants to go in and inspect these inside them holes, you take the lid off -- then they get through, put it back on." So that was my job for a while. And that's how I become a milright.

Then later on they merged all these classifications into maintenance mechanics. That covers a lot of the different classifications, maintenance mechanic did.

**Callan, B.:** These manhole covers that you're talking about, that was inside the K-25 building itself?



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[1:19:17]

**Marrow, G.:** Yeah.

**Callan, B.:** Okay.

**Marrow, G.:** Oh, yeah. It's them enclosures where the converters was and the stuff like that. They was all enclosed and you had an inspection manhole cover. Where if they had a leak or something or other, they'd go in and patch it.

**Callan, B.:** Okay. And it sounds like you're pretty familiar with the layout of the K-25 building and the different floors or different levels of it?

**Marrow, G.:** Well, you got the basement. Then you got what they call the cell floor where all the compressors was. Then you had the attic between there. All the pipe was in between there. Then the top floor where all operation went on. Where they checked the --

**Callan, B.:** Okay. And the reason I'm asking this is because this is some of the things I really haven't gotten a real good description of in some of the previous interviews. As far as the basement or the vaults go. Can you give me a description of what the basement and what the vaults are and what they were used for?

[1:20:34]

**Marrow, G.:** Uh, water filled in -- cooling water filtered in. They had the big tanks there. They had filters in them, and the cooling water went through there and filtered out just like a refrigerator filter. But all I'd say is these tanks is probably three foot in diameter and maybe ten or twelve feet long. And they had I guess maybe three or four-inch pipes going to them. Water --

And they had other machinery in there. I didn't know what the other machinery done. Pump water I guess or something. And they had them big cooling towers outside to, you know, cool the water when -- after it went through the system.

**Callan, B.:** Okay. And what about the cell floor. Can you describe the next level up from the basement, or the vault? That's the cell floor. What does that look like?

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**Marrow, G.:** Well, it was just -- They had a floor then you had a ramp up so high, and all your machinery was on that ramp -- those pumps that pumped the gases through the converters. And uh, that was about it on it. They wasn't nothing else on there just those compressors.

**Callan, B.:** Is this also where the bicycle lane was? That's on the cell floor, right? And people would ride bicycle up and down from one end?

[1:22:29]

**Marrow, G.:** Yeah. You could ride bicycles in there all the time. They -- The operators rode bicycles all the time. We wasn't allowed to cause -- And they did -- The operators needed room more, so let's get around and do their work.

**Callan, B.:** And then above the cell floor, that's where I guess people call it the pipe gallery?

**Marrow, G.:** Yeah. Pipe gallery.

**Callan, B.:** Okay. Describe what that looked like.

**Marrow, G.:** Well, it was just -- They had big trays there and it was covered with metal and all your pipe was going through it. And all that was -- They had steam pipe going through there to heat all that. And it was just -- The pipe gallery was just full. And they had insulation, you know, cover that metal up. Hold the heat in.

[1:23:41]

**Callan, B.:** What were the working conditions like inside the facility? Was it hot?

**Marrow, G.:** It was hot. And pipe gallery and in the cell floor, all that you know. You had all that machinery running, that's what's wrong with my ears today. Back then the only thing we had for protection was probably cotton and stuff like that. Just put in the ears -- for years. Then they got the right stuff after many years.

**Callan, B.:** So it was pretty loud in there I imagine -- all the time?

**Marrow, G.:** Right.

**Callan, B.:** Above the pipe gallery, that's where the operations controls were?

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**Marrow, G.:** Right.

**Callan, B.:** Can you describe what the operations floor looked like and what the controls looked like?

[1:24:45]

**Marrow, G.:** Well, they had -- all the way down what they -- above the cells, they had boards with all their instruments. You know, showing, flashing like that. And they had one or two operators sat at each board at all times watching the instruments. And that's the layout of the building. So you had a cell converters and pumps over here. You got another one and then you'd have a switchboard on each one of them all the way.

I assume one switchboard took care of one cell what they call a cell of the converters. That was six converters to a cell.

**Callan, B.:** There was usually around two people working on each switchboard there?

**Marrow, G.:** I seen they had stools set on there. There'd be two or three there at all the time watching it for years. Then they started cutting back. Maybe they did one at each place had a lot of women doing it -- working that.

**Callan, B.:** How many people would you say were working up on the operations floor at any given time?

[1:26:27]

**Marrow, G.:** I couldn't estimate.

**Callan, B.:** Several hundred? Several thousand?

**Marrow, G.:** Could be. Either one of them. I know it was full. There was people riding bicycles up there. Just like New York City or something. Just everything was moving.

**Callan, B.:** Okay. We're going to flip out tapes real quick. The tapes that we have, they only run thirty minutes, and so there's a --

[End of Tape 1, Begin Tape 2]

[2:00:07]

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**Callan, B.:**

Okay. And we are back on. Gary wanted me to ask you a little bit more about your work background, because you were talking to me about it before we actually started the interview. And I wanted to know if we could go over that again. You said that you initially started working here for two years, and then you left and went into the service and came back.

Can you give me that whole story again about how you started? You were here, and --

[2:01:03]

**Marrow, G.:**

Well, February the 6<sup>th</sup>, I come -- well, February 2<sup>nd</sup> is my birthday. So February the 6<sup>th</sup> -- I started hiring in February 2<sup>nd</sup> and went over there.

**Callan, B.:**

And this was what year? I'm sorry.

**Marrow, G.:**

This is 1945.

**Callan, B.:**

Okay.

**Marrow, G.:**

And there was so many in line, you know, I missed out on four days seniority. [laughs] My hiring date is 6<sup>th</sup>, which I originally started the 2<sup>nd</sup> though. And I worked there until probably around May or early into April -- one, and got drafted in the Army. And went and stayed in the Army for almost two years. Then when I came back and they hired me back, but they had a ruling if you went in the Army, you had your job back.

And so I come back and I worked there until end of March of 1990.

**Callan, B.:**

So, when you got drafted into the Army, what did you do in the Army?

[2:02:32]

**Marrow, G.:**

I was in for Truman. I got -- they sent me to Germany. We trained to go to Japan and fight the Japanese, but about half way through our training, they changed it to occupational. And the war in Germany was already -- they had quit shooting over there, and so I was assigned to Nuremberg, Germany in the war at the criminal trials where they hung 11 Germans, Herman Goering and those.

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And I was a chauffer for one of the prosecutors. I lived in the house with him and all -- and drove them back and forth to the courthouse there in Nuremberg. Go with them on vacations and stuff like that.

**Callan, B.:** While you were in the service or during your tenure at K-25 were there any famous people or notable people that you met?

**Marrow, G.:** At K-25?

**Callan, B.:** Either at K-25 or while you were doing your service in the Army?

**Marrow, G.:** Weinberger or something. I don't -- I can't remember. Bob Winkle was the head of our department.

[2:04:14]

**Callan, B.:** Robert Winkle?

**Marrow, G.:** Right.

**Callan, B.:** We've interviewed him. [laughter]

**Marrow, G.:** Let's see, he's been dead a few years I think.

**Callan, B.:** Winkle, we had dinner with him. Are you talking about Bob Winkle here?

**Marrow, G.:** Ah, old man Bob Winkle?

**Callan, B.:** Because he was like an operations manager, correct?

**Marrow, G.:** Yeah.

**Callan, B.:** Or he was the facility manager.

**Marrow, G.:** He left K-25, and he went to Paducah, Kentucky -- went to work up there.

**Callan, B.:** He's a taller gentleman, right? That's Robert Winkle. Because the last time we were down here last month we went and had dinner with him.

[2:05:03]

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**Marrow, G.:** How old a feller was he?

**Callan, B.:** Ninety something.

**Marrow, G.:** Is it?

**Callan, B.:** Uh-huh (affirmative).

**Marrow, G.:** Well, I had it that he was dead. Maybe I'm wrong.

**Callan, B.:** He's a -- I'm trying to describe him. How would you describe Robert Winkle.?

**Crew:** Tall. [laughs]

**Marrow, G.:** Yeah. He was tall. A great big man.

**Callan, B.:** Yeah. What was he like? I'd like to hear what he was like.

**Marrow, G.:** He tried to be a rough feller, but all the way around he was honest. He was just trying to get the work done. He had a job to do, and he done it.

**Callan, B.:** Did you know him when you first came out here in the earlier years?

[2:06:07]

**Marrow, G.:** Right.

**Callan, B.:** He told me some outrageous stories when we were at dinner about sneaking in whiskey and some of his adventures with that. I guess initially the secret city -- I guess there was prohibition, too, really.

**Marrow, G.:** Yeah.

**Callan, B.:** And I don't know if you have any recollections like that.

**Marrow, G.:** No. I wasn't -- His assistant was Joe Sawicki. I don't know whatever happened to him either.

**Callan, B.:** We've interviewed him.

**Marrow, G.:** Is he?

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**Callan, B.:** Yes. I think we have that name.

**Marrow, G.:** That's about all I can remember their names right now.

**Callan, B.:** What was Sawicki like?

**Marrow, G.:** Ah, he was just the type of guy -- whatever Bob Winkle had him to do, he'd do it. [laughs] He was nice to the people. Of course, they had to be back then because if they didn't like their job, got a rough going, they'd switch you off somewhere else. They could do it easy.

[2:07:34]

**Callan, B.:** What are some of your most vivid recollections or favorite things about the time that you spent out here at Oak Ridge and K-25?

**Marrow, G.:** I was sure proud when they let us move into these hutments instead of having to make that trip back and forth to Tellico Plains. That was something. And this get to work -- get a little take it home money. That was the main thing. Cause when this thing started, TVA you know was running. Of course I was too young to get on to TVA.

And a few people was working around there for TVA, but a lot of them quit that and started to work up here.

**Callan, B.:** If someone were to come up to you and ask you what was the work that was done up here. Say someone just has no idea about Oak Ridge or Tennessee or the Manhattan Project. How would you describe to them what the work was that was done up here?

[2:09:32]

**Marrow, G.:** I couldn't describe it much. It's more than what I've already described it, because we didn't care what was going on. We just worked to try to make a little money. We'd do anything they asked us to do.

**Callan, B.:** Were you treated pretty well by your managers or the folks at Union Carbide?

**Marrow, G.:** Treated nice -- everybody -- everybody treated the workers nice.

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**Callan, B.:** Was there anything in particular you disliked about working at K-25?

**Marrow, G.:** Well, no not really. I've always been a type of guy. If I was asked to do something, I'd do it and say nothing about it. And uh, but I've heard other people gripe about things that I wouldn't say a word about.

**Callan, B.:** When you started working here, was this after they had already dropped the bomb in Japan when you started working up here?

[2:10:57]

**Marrow, G.:** Well, no. It was -- We didn't know anything about that. The first time that I was already in the Army going through training when they dropped the bomb. Camp Blandon Florida, our captain come through and told us.

**Callan, B.:** And on that day, what was it like the day that you found out or that you heard the bomb was dropped?

**Marrow, G.:** Oh, it was a -- Everybody was shouting and hollering going on. We was really wanting to go to Japan. Our whole outfit. Cause we was done trained. Wanted to go to Japan to fight the Japanese. Then they -- the big disappointed us when they told us we was going to Germany occupational. That was a big disappointment to my whole outfit.

When a young 18-year-old kid was trained to do something, you know, they want to do it.

**Callan, B.:** When you found out -- [crew talk] Okay. We're back. It was August 6<sup>th</sup>, I believe, 1945 -- when the bomb was dropped. Did you link it to the work that was being done down here? Did you kind of know that it was related to that?

[2:12:49]

**Marrow, G.:** Yeah. They told us it was an Oak Ridge project. Captain made a big speech. I don't -- Said the people that worked at Oak Ridge helped make the bomb that was dropped. Then we didn't hear no more about it. That was it. You just had to read it in the paper, the newspaper and whatever to find out more about it.



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**Callan, B.:** How do you think that history will look back on the Manhattan Project and what was done here?

**Marrow, G.:** Well, I think it would be a great thing -- history -- something happened like that, it has to be. In the short time they built it, they could never build anything like that in these days and times.

**Callan, B.:** How do you think they were able to pull it off back then?

**Marrow, G.:** I don't know.

**Callan, B.:** After the Manhattan Project, a lot of people call it the period from about 1948 to 1964, they call that the expansion program. I don't know if you're familiar with that term. Can you kind of explain what kind of work was being done at the facility after the Manhattan Project -- during that period -- or what was the expansion program?

**Marrow, G.:** The expansion -- Oh, we had to redo a lot of those compressors and converters. They had cut big holes in the pipe, 54-inch pipe, where you could crawl in there and go inside of them things and change the veins, the radius on the veins. Now that was a mean job. That was something other -- you put on protective clothes, and if you had one place on your arm or something wasn't protected, you'd come out and you had a blister -- burn hurts -- a lot of times it would happen on your neck or some -- that's how hot. Well, that acid stuff in there's what did it.

**Callan, B.:** And so this was actually -- I guess crawling into the big pipes that were part of the cascade type?

**Marrow, G.:** Yeah. That's right, right into the system.

**Callan, B.:** And so did you have to wear sort of like an oxygen-type thing?

[2:16:12]

**Marrow, G.:** Oh, we had masks, yeah. Just regular masks. And some cases now you had to wear them oxygen masks cause the heat -- if you went inside those cells where it was so hot. There were places in there that's 135 degrees. You had to go in there and work a lot of times. Like change a valve. Go down in there or something. And the welders are working. We had an air conditioner up there and hold the hose on his back to keep him so he'd stay in there long enough to weld. [laughs]

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**Callan, B.:** Sounds awful hot. So you really couldn't work for long periods of time in there.

**Marrow, G.:** No. Well, it first started it didn't have that air conditioner. Then they come up with that and makes the welders stay in there longer or a mechanic or whoever is working down in that, inside of the housing.

**Callan, B.:** And so what was the protective clothing like? Was it just basically insulation from the heat?

**Marrow, G.:** Yeah. Just paper suits were like. And you had hoods.

[2:17:52]

**Callan, B.:** It sounds similar to something that -- Are you familiar with Jim Hackworth?

**Marrow, G.:** He's the one that got me in on this. [laughs]

**Callan, B.:** Oh, really?

**Marrow, G.:** Yeah. I worked with him. When we was first married, he was our next door neighbor. And so I've known him ever since 1953 anyway. He went to work down there later on as a trainee and then built himself up. He went into supervision. Jim Hackworth's a great feller. He's a fine feller. Now he's the one that called me and asked me if I'd do this. [laughs]

**Callan, B.:** Really?

**Marrow, G.:** I'm really not a person that likes to do this anyway. I'm a more private person.

**Callan, B.:** But he also told me about having to crawl into the pipes from time to time. He called them Easter egg hunts. Are you familiar with that?

**Marrow, G.:** Called it what?

[2:19:13]

**Callan, B.:** He said sometimes they had to have Easter egg hunts.

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**Marrow, G.:** Oh, yeah. That's uh --

**Callan, B.:** Tell me what an Easter egg hunt is.

**Marrow, G.:** Okay. If a compressor debladed, it would go back in them pipes. And that's what they called Easter egg. They had to go in there and dig it out to find those pieces of blades, because they didn't want it to cross over into another compressor and tear up --

**Callan, B.:** Right.

**Marrow, G.:** I remember in K-29 building, when they first turned that over to us we had to change out all the valves. And Jim was down with a grinder grinding where the valve would fit in better, and he let that grinder get away and like to have cut his leg real bad. He didn't tell you about that I guess.

**Callan, B.:** No he didn't.

**Marrow, G.:** [laughs] He had a bad leg for a long time.

**Callan, B.:** No, he didn't tell that story to me. So I guess on the system itself, did you do -- Describe to me what the different types of work were that you did. Did you do welding work? Or --

[2:20:44]

**Marrow, G.:** No. We didn't do welding -- we done rigging, insulation, mill right work, pipe work.

**Callan, B.:** What was the one you said before pipe work?

**Marrow, G.:** Milright work.

**Callan, B.:** What's that?

**Marrow, G.:** Well, that's like tearing down a compressor or something and rebuilding it.

**Callan, B.:** How often did you have to rebuild compressors?

**Marrow, G.:** They spoil -- well, you couldn't tell, cause they would -- some of them would last for years and years running. And other times maybe you'd fix one and a few days it's tore up again. And same way -- Milright work covered changing out seals for those

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compressors. That didn't last, that classification didn't last too long cause they changed it over to maintenance mechanic, and that covered all of it.

[2:22:00]

**Callan, B.:** And then you said pipe work after that? What was pipe work?

**Marrow, G.:** Well, that was replacing and using pipe to add on to whatever they needed to. Or waterline break or something like that needs to be repaired.

**Callan, B.:** My understanding is once the cascade was up and running, pretty much the whole thing was always running all the time. So how was maintenance performed? I mean, were you able to shut off certain section of the whole thing? Or how did you do it?

**Marrow, G.:** You shut a whole cell down – compressors -- and do the work on whichever one you needed to or whatever. Then you got through. They started back up.

**Callan, B.:** And so it was just kind of turning a couple valves?

**Marrow, G.:** Well, they'd just valve it off you know. Valve that cell off and shut it down. Bypass it.

**Callan, B.:** So probably at any point and time during this operation there was always like a few cells that were down that were being --

[2:23:19]

**Marrow, G.:** That's right. There was something all the time -- maybe half a dozen down at a time. If they had a seal leaking, they could put up with a little leak, but if it got great then they would have to shut it down. Too much atmosphere going into the --

**Callan, B.:** So if there was a cell leak or something like that, I guess all the cells – they had a housing around them. That's why it was so hot inside the cells itself was because of the housing?

**Marrow, G.:** They were all a system but the K-29 building. It was right out in the open. The whole thing's out in the open.

**Callan, B.:** How come they didn't use housings on K-29?

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**Marrow, G.:**

Well, that was the first one they started building on them big compressors. And they didn't think they needed it. You and your buddy changing a seal, one of you had the -- used to have mine there. He's back there handing you tools, and you got to be familiar with your buddy or he's got to be familiar with you what you need next. Hand it to you. You couldn't talk there was so much racket. Unless you just turn right around and -- cause half your body was up in the back end of that compressor. Laying up in there on asbestos cloth to keep from getting burned. And he'd have to reach in what you needed next to get that seal out.

[2:25:21]

**Callan, B.:**

See no one's ever told me how loud it was in there. But now that I'm thinking about it, it would have to be loud with all those compressors running.

**Marrow, G.:**

Oh, you just couldn't hear a man talk at all. They do get up above them compressors, up toward the top of the building, that's where the heat was -- boy, it was hot up there. I believe when they put a sprinkler system in there -- Construction did that. Some of the guys told me it was 135 degrees they worked up there in.

**Callan, B.:**

Is this up on the top floor? Up on the --

**Marrow, G.:**

Well, there wasn't no top floor in K-29. I was talking about this 29 (Indiscernible). That was just from the compressors up. It was open up to the ceiling.

**Callan, B.:**

Okay. Yeah. I have heard that K-29 was warmer I guess. But I guess K-25 it wasn't as hot because of the housings I guess. It helped contained the heat a little better?

**Marrow, G.:**

Oh, yeah. Yeah, anywhere it was closure the heat was -- you still had to go in there and work inside the housing. But outside it was -- you could talk to anybody without a lot of problem.

**Callan, B.:**

And the heat didn't really transfer up so much to the pipe gallery or up to the operations floor. It wasn't hot, hot up there?

**Marrow, G.:**

It wasn't too -- the operation floor, they could open the windows up. They had big fans a going, so it was real comfy up there in the K-25 building. They had asphalt floors to walk on.

**Callan, B.:**

So K-25 was put on standby in 1964, is that correct?

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[2:27:40]

**Marrow, G.:** I couldn't say the date, but that sounds about right.

**Callan, B.:** Okay. What did you do when the facility was put on standby?

**Marrow, G.:** Oh, we had to go in there and pull the seals out of the compressors and close everything off. You know, make it where any of that gas was left in there couldn't escape.

**Callan, B.:** So you said pull the seals off the compressors. Was that every single compressor there?

**Marrow, G.:** Yeah.

**Callan, B.:** How many compressors?

**Marrow, G.:** Oh. [laughs]

**Callan, B.:** Give me a ballpark.

**Marrow, G.:** I don't -- right now I couldn't say. I think it's 12 compressors to a cell.

**Callan, B.:** So we're talking a lot of compressors there.

**Marrow, G.:** Yeah.

[2:28:36]

**Callan, B.:** How long did it take to do all that?

**Marrow, G.:** Well, they had a lot of guys. They brought in guys from different departments to help us out. And independent didn't take long to -- You could -- One or two men could probably get a half a dozen or maybe even a dozen in one day according to how fast you worked or something or how much trouble you had getting them out. You worked buddy system -- two people worked together.

**Callan, B.:** Okay, he is going to switch out tapes real quick, and I've got a few more questions I want to ask you before --

[End of Tape 2, Begin Tape 3]

[3:00:05]

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**Marrow, G.:** Have you interviewed any guards that was down there?

**Callan, B.:** I don't think that we have interviewed any guards.

**Marrow, G.:** Well, I was interested about -- Jim Young -- the guard. He'd been there all them years. I didn't know he --

[3:00:34]

**Callan, B.:** I'll have to check to see if we have him on our list. No. I haven't gotten any interviews with the guards. Since you brought that up, tell me a little bit about the security at the facility and what that was like.

**Marrow, G.:** Well, they had a lot of fences around the whole plant. Different gates -- and they kept guards there for -- and you go through certain areas like over in the -- what they call the six section of the K-25 building. That was extra security. You'd have to go in there and change clothes. This is the early days. You change clothes and work in their clothes. When you come out you put your clothes on. There was a different set of coveralls.

And they had metal detectors. And they had machines. Stick your hands in and check you for radiation.

**Callan, B.:** Okay. So I'm able to put a piece together here that I haven't been able to before. And we were familiar before we started this interview process with something called change rooms. And I've asked several people about change rooms. And they said, "Well, they were there for a little while but not for long." So is that what change rooms were for was you'd have to go into this area and you'd have to change?

[3:02:22]

**Marrow, G.:** Yeah. Go and uh -- Yeah. You'd have to -- You had their clothes on -- then when you went in there to do a job -- some of it was -- you had to use a paper suit on. And then you come back out. You had to check for radiation, then changed into your other clothes. If you had any radiation, you'd have to take a bath or something before they'd let you out. If they couldn't get the radiation off, they'd load you up and take you to the dispensary. And they'd give you a bath.

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**Callan, B.:** So did they do pretty regular testing overall on people who worked at the facility? Radiological testing and whatnot?

**Marrow, G.:** Oh, I'm not familiar with that. I don't --

**Callan, B.:** Were you given regular health checks and -- ?

**Marrow, G.:** Oh, yeah. We got regular health checks. We'd have to leave urine samples every, I believe it was every month or three months -- something like that. You had to leave a urine sample in the change houses, and there'd be a person come along, you know, and pick them up. The days that the urine sample was suppose to be left.

[3:04:15]

**Callan, B.:** How long were the change houses out there? Kind of in the earlier --

**Marrow, G.:** Yeah. How long did they have them?

**Callan, B.:** Yeah. How long did you have to -- did they have the change houses out there where they had to be used?

**Marrow, G.:** Well, it went on that way maybe up 'til about the time they shut down K-25. But you still, still had to leave them urine samples, even if you worked or changed there in a different -- another building. And it worked in these buildings.

**Callan, B.:** Did you yourself ever have to go to the dispensary to have them --?

**Marrow, G.:** I can't ever remember having to -- I've never went there for decontamination. No. I never did. But there'd be a number of people did go -- I know.

[3:05:48]

**Callan, B.:** Would you say that procedures were pretty safe? Were there important rules that you have to follow procedure wise and at work?

**Marrow, G.:** Yeah. Yeah, it worked pretty good.

**Callan, B.:** Were there people that sometimes didn't follow important procedures?



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**Marrow, G.:**

Well, they'd uh -- You had people like that. That try to, you know, do the job faster than what it's supposed to be done and stuff like that.

**Callan, B.:**

What would say was your most challenging assignment that you had to do out there, either as an individual or as a group of people? What was the most difficult thing you had to do while working in the K-25?

**Marrow, G.:**

It was going into the system. That was the most difficult thing that I ever done. Going in there and changing those veins on the compressors and converters.

Uh, they always -- we had a lot of old people working and the first half of the day one of us is supposed to go in and do it and the next half a day the other one -- What it was they assigned us to two compressors -- two people and one man's supposed to go get one. But I always had an older person; I'd get both of them. You know, take care of -- And if you didn't dress properly, like I -- You'd get burnt.

They had cream to put on your arm, neck and face and that helped keep the heat off. Especially the ones that -- If you drew a buddy that wore glasses, you know, on them gas mask things they'd fog up. They couldn't see. So somebody had to do the work.

[3:08:44]

**Callan, B.:**

What were your co-workers like? Did everybody pretty much pull their own weight?

**Marrow, G.:**

Yeah. It was a help your buddy if you could. And seemed like everybody -- I never knowed of anybody refusing to do something that your buddy couldn't do.

**Callan, B.:**

What would say was your most significant accomplishment as a group out there -- or as an individual?

[3:09:18]

**Marrow, G.:**

I don't know that one.

**Callan, B.:**

Do you know why the facility was named K-25 by chance?

**Marrow, G.:**

Who's that?

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**Callan, B.:** Do you know why it was named K-25?

**Marrow, G.:** Where it --?

**Callan, B.:** Why was the building named K-25?

**Marrow, G.:** Uh, yeah. I've heard it. Why it was built -- K-25 and that, but right now I can't remember which was one of them. A job that I really enjoyed was I was sent down to the old powerhouse building and I was a maintenance for a laboratory gang outfit that worked out of X-10 and Y-12. They was mixed up down there. They run all -- Anderson was the head of it.

And they were trying to learn about cancer. They tested dog livers. They used to put dogs to sleep and remove their liver and stuff -- and put them in a centrifuge -- and I learned a lot working for them down there and that. I enjoyed that. It didn't last too long.  
[laughs]

[3:11:05]

**Callan, B.:** Let' see. Where was the test site?

**Marrow, G.:** They called it the MAN program.

**Callan, B.:** What did it stand for? MAN?

**Marrow, G.:** I can't remember what it stood for.

**Callan, B.:** And so basically they were doing research to figure out --

**Marrow, G.:** Cancer. They was figuring on -- they worked on cancer research and different things. I don't know what all they was doing. They had a lot of the doctors there, you know -- people running -- well, you didn't know what they was doing. You didn't ask questions about that either. It wasn't no secret the way I understood it. I worked there a couple years I guess -- something like that.

**Callan, B.:** And what was some of your favorite work that you did?

**Marrow, G.:** It was -- A lot of it was designing. They'd bring a project in and say, "We need this a certain way, done a certain way -- and use your own judgment to build it." And I always liked to do things like that -- figure out, so -- working on small water lines and glass

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tubing and things of that nature.

[3:12:59]

**Callan, B.:**

It sounds like real interesting work. Did you accomplish most of the task yourself, or did you have a team of people that you were working with?

**Marrow, G.:**

Jerry Brantley is one of them. He was one of the operators. And of course Dick Willis, he's dead now. Dick Willis is dead. Jerry Brantley lives over there close to Jim Hackworth. And Dr. Anderson, he was the head of it. I don't know what ever happened to him. I heard one time he went to South Carolina -- after they closed it down. And Dr. Bud Brelant, or I believe that's the way -- Burlat or some such a name. He worked down there for a while. But I don't know. He didn't work there long. He left.

**Callan, B.:**

Getting back over to K-25. During its years of operation, were there ever any conflicts that occurred between management and the workers? Were there unions out here? Was there very labor strikes?

[3:14:42]

**Marrow, G.:**

Yeah. We had a strike early -- maybe two or three strikes -- I don't know. They didn't last long -- two or three days or something. They settled it out. And management run the plant while we was out on strike. But they'd always come to an agreement in one way or the other. And it would settle.

**Callan, B.:**

So not a lot. No long, drawn out conflicts?

**Marrow, G.:**

No, there wasn't no. Two or three days or a week was about the longest one I can remember we had.

**Callan, B.:**

What about power outages? I've heard that power outages could create a great deal of difficulty for the plant. Did you ever have to deal with a power outage? And what was that like?

**Marrow, G.:**

Oh, yeah. We had a few power outages, but that was mostly electrical problem. And it didn't concern our work too much. If they got it back on real quick before -- you know -- some of that gases got set up into the cells, you know, the compressor and things. And I don't remember it ever doing that.

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[3:16:25]

**Callan, B.:** So even if there was a power outage you wouldn't have to do a lot of replacement work and whatnot afterwards to get the thing back up and running. Wasn't hard to get that going again?

**Marrow, G.:** Well, that was operation's job to do that, to get that going. If it was electrical, electrical would fix whatever problem it was and then operation would start her back up.

**Callan, B.:** What about the roles of women out there at K-25? And you were out there in the early years. There was a lot of women working out here. What sort of job roles did they serve? What did they do out here?

**Marrow, G.:** Well, they done a little bit of everything. They -- I seen them on -- when they was building the plant, they had welders, women welders. Then in the plant for Carbide, they had a lot of them as switchboard operators. Then later on, they started moving out on other jobs. Even come -- they come into maintenance later on -- worked there along side of us.

[3:16:04]

**Callan, B.:** How were they treated? Treated like equals? The women, were they treated differently at all?

**Marrow, G.:** No. They wasn't treated no different. They -- if you buddied a woman, she done exactly what you done -- whatever.

**Callan, B.:** And I've heard different recollection, too, but initially we're talking back to around 1944, 1945 when Oak Ridge was first starting up. Was there a lot more women out here than there were men in general?

**Marrow, G.:** I'd say they all us, cause back then they were still in war. Men was gone.

**Callan, B.:** What about minorities, African Americans? What sort of roles did they serve out at the facility?

**Marrow, G.:** Early days they mostly in labor work, janitors and laborers. Then later on they started them in training programs in maintenance and other jobs.

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**Callan, B.:**

And how were they treated? Were they treated differently out here?

[3:19:33]

**Marrow, G.:**

Yeah. In the early days, they had their own bathrooms, their own drinking fountains, and all like that. They was treated separately. That's when they first started. I never did see it happen, but they caught a black person drinking out of a white drinking fountain or something like that, you know. I've heard that they fired them but I don't know that to be true.

**Callan, B.:**

Okay. There was a different living community too for the African American workers I hear initially. I guess the Scarborough community or something like that.

**Marrow, G.:**

Oh, yeah. They lived over in Scarborough. What we call Gamble Valley.

**Callan, B.:**

Gamble Valley. I've heard that.

**Marrow, G.:**

Yeah. [laughs] And I assume the reason why they named it. You know, a black person likes to gamble, and they -- [laughs] and when they -- they all had their own separate facilities that worked on labors down there at K-25. Just before you start to cross Clinch River Bridge there -- back in there in them ridge, they had hutments back in there, and they all lived in that area -- had their own cafeteria -- whatever.

[3:21:25]

**Callan, B.:**

Did they have similar facilities to the rest of the construction crew or was their facilities -- were they different?

**Marrow, G.:**

I'd say they's about the same -- I don't know, I couldn't answer that, I don't know.

**Callan, B.:**

We're getting sort of to the broad perspective. Just sort of wrap-up questions here. What do you think that future generations should remember about K-25?

**Marrow, G.:**

Well, the bomb I guess. What saved -- The bomb, in my opinion, saved a lot of American lives. And I don't know we're probably creating a new Oak Ridge, secret city they called it.

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**Callan, B.:**

If you were writing a story about Oak Ridge and about K-25, what would be the topics that you would cover in that story?

**Marrow, G.:**

Not being a writer or something, I wouldn't know.

[3:23:11]

**Callan, B.:**

I mean, what different things would you write about?

**Marrow, G.:**

Well, I'd probably write about the plant at Oak Ridge.

**Callan, B.:**

Okay. That's really all of the questions that I have at this point. Are there any other things that you wanted to discuss or that we didn't cover?

**Marrow, G.:**

No. I think we covered everything that I know. [laughs]

**Callan, B.:**

Okay. Well, it's been a great interview, and I really do appreciate it. Let me have Justin get the microphone off of you before you stand up.

[End of Interview]