

**CLAYTON JIRCIK**

**Interview 271a**

**November 13, 2014, at his home, Lufkin, Texas**

**Jonathan Gerland, Interviewer**

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**ABSTRACT:** In this interview with Jonathan Gerland, longtime Lufkin Industries engineer Clayton Jircik reminisces about his career in the foundry, discussing the equipment they used, the processes and equipment he designed, and the people he met and worked with at Lufkin Industries. He talks about the cupola, the blast furnace, mold making, and the casting process. He also mentions the Trout family, changes in processes, the influence of the EPA and OSHA, and the organization of the foundry employees. Employees he mentions include: Arnold Tompkins, John Elijah, Houston Davidson, Carl Ross, Robert Lang, Al Cudlipp, Earnest Lord, Sam Kerr, Seymour Curtis, Rod Pitman, Bob Beddingfield, Bobo Hayes, Bayo Hopper, and Scott Semlinger.

**Jonathan Gerland (hereafter JG):** Today's date is Thursday November, 13, 2014. My name is Jonathan Gerland. I'm in the home of Mr. Clayton Jircik here in Lufkin and today we are going to do a recorded interview about his time and experiences at Lufkin Industries. So, Mr. Jircik if you would maybe begin by telling us when and where you were born.

**Clayton Jircik (hereafter CJ):** I was born in Cleveland, Texas in 1924, April 22<sup>nd</sup> 1924. I was one of seven children. I'm going to make this brief because this is long.

**JG:** Go ahead.

**CJ:** Anyway, my dad came over from Czechoslovakia when he was 18 years old, landed in Galveston and he came over as a baker and worked throughout the state and finally came to Cleveland, Texas in the teens, 1910 somewhere.

**JG:** When did he come to Galveston? When did he get to Galveston?

**CJ:** About 1912 I think.

**JG:** 1912, okay.

**CJ:** 1912.

**JG:** So, right before the war then, World War I then, okay.

**CJ:** Right.

**JG:** From Czechoslovakia?

**CJ:** Right.

**JG:** Okay.

**CJ:** He tells the story that he walked from his home town in Czechoslovakia to Bremen where he caught the ship to come over here. There were a lot of immigrants coming over then so..

**JG:** Is that B-r-e-m-e-n.

**CJ:** Bremen, Germany, that was the port.

**JG:** How would you spell that?

**CJ:** Well I think it is B-r-e-n-e-m. [Bremen] You will have to look that up.

**JG:** Okay, alright.

**CJ:** So, anyway he opened that bakery there and back then in a small town, I don't know where you are from, but in a small town back then the little towns would have a grocery store, a meat market, and maybe a hardware store and a bakery. Because the bakery furnished the bread for the area, see because you didn't have bread you baked biscuits or baked your own bread. That is how that was constructed. I was raised there and graduated from Cleveland High school in 1942.

**JG:** Did you help your father at the bakery?

**CJ:** Oh yes, all seven of us did.

**JG:** All seven of you did.

**CJ:** That is right.

**JG:** What kind of work would you do?

**CJ:** My dad was an investor, in other words he built up the business and during the Depression of 1932 he lost \$2,000 with a brokerage firm in Houston that went bankrupt. And you would think that would put, with all these kids, of course I don't know how many kids he had then, but anyway, but he made it through. But anyway so we've all been investors since then. In other words I live off my investments. I sure don't live off my income tax, I mean my retirement because it's probably not much. So anyway graduated from high school...

**JG:** Did your father and mother, did they encourage all your siblings to go to college?

**CJ:** Yes, and we all did except for my oldest brother. My oldest brother stayed there and he took over the bakery for my dad and everybody had a college education except the oldest sister. She had the chance to go to college and she went. She went over to Sam Houston, but she was away from home and she wanted to have a good time and she fooled around and I guess didn't make good grades. Anyway, he pulled her out and sent her to a business college and she held that against him for the rest of her life. Let's get back to...anyway, so I graduated at Cleveland (**JG:** yes sir) and that was just at the start of the war and me and three of my buddies, three of us enrolled at A&M, Texas A&M. And I spent two semesters there and got a draft notice. Well, since I got my draft notice I dropped out of school and went back to Cleveland and waited for the draft. Then all of a sudden that draft call was cancelled. So, I stayed there and helped my dad in the bakery and then I got another draft notice. It turned out I had a heart condition that, I don't know if I was born with it or what, but it was an enlarged heart at one time. That knocked me out of the draft and I didn't have to serve, so I don't know how much time I spent after that but I went back to A&M in 19...sometime in the forties.

**JG:** After the war?

**CJ:** No it was...

**JG:** Still the war was going on?

**CJ:** No, let's see it was...I don't remember.

**JG:** Okay.

**CJ:** I don't remember exactly when it was. Remember I'm ninety years old. This list here I couldn't call one fellow last night or yesterday afternoon and I called a fellow who is still working at Lufkin Industries and ask him who was so and so and he said I'll let you know in a minute. Well, after I hung up I thought about this fellow and then from there on I started thinking about all these other fellows. It is amazing, after...well see I have been gone for fifty years and all these names came back to me. Anyway...

**JG:** And we will get to the list in just a minute. What did you major in?

**CJ:** Mechanical engineering.

**JG:** Mechanical engineering, okay. How did you come to work for Lufkin Industries?

**CJ:** After I got out of school I...jobs were hard back then but I went to work for a company that was...let's see they were a construction company. I think it was C. F. Braum the first time. I've destroyed those records too. But anyway, at Pasadena we built a plant for making tetraethyllead and I think we spent two years there, and anyway after we got that plant built I was laid off, but then they had another contractor build an aluminum plant at Corpus Christie. So, I followed them there and spent seems like two years, maybe it wasn't, building that plant in Corpus Christie and all this time was as an

engineer actually doing work measurements. In other words I kept track of the progress of the construction and after that I went to work for Pan American Pipeline. Those construction jobs, after you finish a job you get laid off see, so I went to work for Pan America Pipeline and I was based in Snider as an engineer out there and what I was doing was laying out pipeline. In other words usually from gathering systems but also I laid out one major pipeline from one town to the next town and had a big error there. No, that was another error there.

**JG:** Okay.

**CJ:** So, anyway while I was working there, there was a fellow who was selling scrap to Lufkin Industries that knew Ed Trout. They were supposedly big buddies and this fellow was my brother's brother-in-law. He wasn't kin to me, he was my brother's brother-in-law. I don't know how in the world, anyway, how the conversation got to me with Ed Trout so anyway this fellow called me and said Ed Trout wanted to see me so I went to see Ed Trout and he hired me. This was in 1955 I guess because I went to work in '55. That is when I came to Lufkin was in 1955. I started out in the Foundry, where I wanted to be. Well to back up a little bit, my foundry experience was at A&M. They had a course back then that was called Manufacturing Methods or something, but anyway, included in it was making castings. In other words you made the molds and we had a small cupola and we melted the metal and poured the castings and then after you did that you machined the castings. So, you carried it all the way through. Now, they don't offer that course anymore and I'm surprised. Well it is because it has gotten too complicated. It is all computers now, computer science and all that. So, they don't offer basic courses like that anymore you just pick it up in industry. Well places like out at Angelina College they offer basic machines and things like that.

**JG:** What was the Foundry doing when you first started working for Lufkin Industries? What was going on at the time you were hired?

**CJ:** Oh they were making pumping units, it was all pumping units back then.

**JG:** Making castings?

**CJ:** Well the foundry department, when you speak of the Foundry we made the castings and then the castings went over to the machine shop to be machined. Then there was some fabrications and the fabrication shop and it all came together on a truck and went out in the field.

**JG:** I want to ask you about some details about foundry work in general but before we get to that, you were an engineer, they hired you to be an engineer?

**CJ:** Yes.

**JG:** To work in the foundry so, what specifically was an engineer to do at the foundry?

**CJ:** He designed machinery and studied the methods of which they were being used to do work more efficiently. In other words the first project I had when I went to work there I was working under Arnold Tompkins.

**JG:** Arnold Tompkins?

**CJ:** Yes, you've heard of him?

**JG:** I've seen the name but I don't know other than that.

**CJ:** Tompkins was with Lufkin for quite a few years and then he went to work for Love Wood Products (JG: okay) and I guess he was there when he retired. He died many years ago like so many folks. Everybody I know has died, that is the problem.

**JG:** Yes, so would you research, I mean the types of metals, the composition of the castings itself?

**CJ:** No, that is another field by itself. That is a metallurgist.

**JG:** Metallurgist, yes.

**CJ:** Has to do with metal.

**JG:** So you were more in the end product what was needed in the field?

**CJ:** No, what was needed in the plant to make the plant more efficient. In other words you know how we melt metal in the foundry?

**JG:** Well what kind of furnace did you use?

**CJ:** A cupola.

**JG:** A cupola furnace, okay.

**CJ:** Do you know what a cupola is?

**JG:** Well describe it for the recording.

**CJ:** A cupola in our case was a big cylinder about ten feet in diameter and about fifty feet tall I guess and by the way you can still see one sticking up and the Foundry here. And, no I didn't design that one, but anyway it is a tube that is about ten or twelve feet in diameter. It is lined with refractory and on the bottom of it, it has two doors. There is a door about half way up that is an opening and that is where you charge the material in.

**JG:** Now when you say it was lined with refractory what exactly is that?

**CJ:** It was lined with refractory; it was blown in like sakrete.

**JG:** Was it like asbestos?

**CJ:** No it's refractory clay.

**JG:** Refractory clay, okay, clay.

**CJ:** It's got a name and I can't remember what it was. I want to make a point here that has to be done every day, in other words you start melting about 9 o'clock, because you've got everything ready, and then about 4 o'clock you drop everything out and you have to realign. Well during the Korean War we had, the man that did that had been doing it for years and years and years, went down in this thing with this gun and he is in this tube...

**JG:** Fifty feet down.

**CJ:** ...he has got all kind of protection but he has to turn around and blow this thing like this and build that lining back up. This fellow lost his son in the Korean War and he came to work anyhow. He was that dependable. His name was John Elijah.

**JG:** John Elijah.

**CJ:** He is a black fellow and he was the most dedicated fellow that I think we had there to do that.

**JG:** He had to do that every day?

**CJ:** He did that well five days a week sometimes six. He was off on the weekend.

**JG:** That was to realign?

**CJ:** Yes to realign. Well the process itself in the cupola but in the cupola it has a clay bottom. Well it is not clay it is molding sand because it has to dry, you build it up so high and then you charge in some wood, I think we started with wood, I don't remember now, and a bed of coke. You know what coke is?

**JG:** Coke?

**CJ:** It is coal that has all the volatiles burned out. They take coal and heat it and all these volatiles come off and it leaves pure carbon.

**JG:** Okay.

**CJ:** You build that bed up so high, that's immaterial right now, then in the morning you come in and build a fire in there with gas burners, that is what it was.

**JG:** Gas burners?

**CJ:** ...gas burner to heat that stuff and get it burning, cause pure carbon will burn of course, so after you know this... on fire then you start charging in your material and you charge in your cast iron and limestone and any alloys that you want to mix with this.

**JG:** And the metallurgist all determine that?

**CJ:** That is right, the metallurgist what we called them, that is right.

**JG:** The ingredients of what was going to be melted.

**CJ:** So, then you have to start blowing air in there. You've got a big blower that blows air in there, about two or three pounds of pressure. I don't remember what it is.

**JG:** Is that what makes it a blast furnace?

**CJ:** It is like a blast furnace only we called it a cupola because a blast furnace is used in the steel industry.

**JG:** Okay.

**CJ:** And they are huge, a lot bigger than this.

**JG:** Okay.

**CJ:** Alright, you blow that air in there and the iron starts melting and it trickles down through the bed that you have. You also keep adding coke so you maintain your bed. You burn up some and you add some more at the same time. You are charging the iron, the flux and the coke at different charges. You just keep charging there until it melts down. It is a little different now but back then you had a hole in that side of the cupola, it was lined of course, where as the iron melted it built up in the bottom and pushed the coke up and the flux was on top. In other words this...just a minute...the limestone is the flux that you used, it would melt too and it would cleanse the iron as it melted. It would float on top well, after it floated up so high there was a hole out the back that the limestone, the melted limestone, what we called slag was coming out.

**JG:** Slag, yes.

**CJ:** The slag was coming out and we were putting it in a big pan of water. It had several hundred gallons of water and we had a man back there and I can't remember his name because he was another one that was...he was one of the oldest employees we had and all his job was to watch that stuff coming out, watch the slag coming out and as soon as he saw some iron he could tell the difference, even though they were both molten he could tell the difference. And he would ring a bell and they would punch a hole in the bottom of that spout at the bottom to drain the iron out. After the iron would drain out then they had

a clay plug that plugged back in there and built some more iron to build up and he is still watching it back there the whole time. But, sometimes if they didn't knock the hole out to drain that iron out quick enough the iron would start coming out the back. When he would come out the back and hit that water, it would explode and I mean it would wake you up. It was a heck of an explosion because that was molten iron hitting cold, hitting water. Because see when the slag hit it, the slag just didn't have that much heat content as the iron did, so it would just go down there and the water would boil some but that would be it. But, you had a blast when that iron hit that water so, that is the old way we did it.

**JG:** So that is the way you were doing it when you started?

**CJ:** When I started that is right.

**JG:** So, when did it change?

**CJ:** We wore that cupola out, that cupola was the original. The Foundry, to back up a little bit, the foundry was built in 1946. W. C. Trout had well, he had a lot of good designers there and they designed it, the building and all. Well I'm not positive about that. That building might have been fabricated somewhere else but there were a lot of the other buildings that they did build. So, that building was built in '46 so, that must have been when the cupola was built. Well finally that heat gets it wore out, so I had to put in another cupola and based on what was in the past I designed it the same way. In other words using the same, there were some modifications and I don't remember that far back. One thing we did do the metallurgist had discovered a process where the iron and the slag came out...let me think a minute how that...because that is what they use now. The iron and slag came out of the same what we called the tap hole at the top. They came out together somehow and the slag goes on top and goes right off of here and the slag, I mean the iron goes, well actually iron is on the bottom and the slag is coming off the top like this. They come out together. We were still using the pan to catch the slag but we weren't having that explosion in other words because they were separated out there in front, wasn't depending on somebody in the back to do that. So, that process was an innovation and then later what they're using now is that slag lands on a cast iron plate that is traveling and you don't use any water because you had to cut down on the water because of pollution. We were...well...we were big polluters back then.

**JG:** So the water just went into the creeks.

**CJ:** Well we re-circulated some of that. There was always some waste water. The most pollution we did was out of the cupola because coming out of the cupola you've got all these senders and CO<sub>2</sub> and CO....you generate a lot of CO.

**JG:** Carbon oxide?

**CJ:** Yes, because you have to be careful working on the second floor up there, or anywhere on top that you didn't overcome because we had one fellow overcome with it but he got it out alright. The exhaust gases from the cupola are real rich. Well as they



came out on the old cupola we had...here is the stack and here is the cone up here and you had a spray of water coming on that cone and come down like that and you had a trough around it and the gas just past through that and it would collect a lot of this stuff but it didn't collect it all. So, you always had stuff coming out the top of the cupola. Well, here comes EPA [Environmental Protection Agency] so you can't do that anymore.

**JG:** And that would have been in the seventies right, the Environmental Protection Agency?

**CJ:** Yes, I guess so because I think we started before then, not sure.

**JG:** '72 or '73 I think.

**CJ:** I don't know how many...let's see, I went from that...we went from that to a closed top and it came off that. These were designed by people that sold the equipment, it came off the cupola and into a venturi. You would spray water into it like that under high pressure. That was capturing a lot of the gasses, but the only problem was you had to create a big suction to overcome the expansion that was coming out of the cupola, so you had to have a negative pressure on that thing. So, you had a big fan there that was 500 horsepower and a huge fan, I think it was five feet in diameter and it was sucking on this venturi with this water and then the water was separated somewhere because this water was in this impellor and then that went out of stack and it was fairly clean. The only problem was the maintenance on this fan. Every weekend, or not every weekend but practically every weekend, I had to go in there with the maintenance people and balance that fan because this water was loaded with...the stuff from the limestone...calcium.

**JG:** With calcium?

**CJ:** It would build up on the blade...

**JG:** Okay, calcium.

**CJ:** ...and get out of balance and if you got that fan out of balance at that speed it was I think 3600 rpm's. A huge fan and you can't tolerate that thing getting out of balance because it will tear itself loose and my office was right across...so anyway ever so often I would get maintenance to open that thing up and they would clean it the best they could. They would sandblast those blades and I would go in there and take some little pieces of metal and we would disconnect the cupola from the motor and put oil in the bearings so it would turn real free. I would sit there and put the little plates on there and make sure it, in other words, if they opened it up and it turned to the bottom like that it was too heavy down here so they would bring it up here and bring it around and put a little weight over here and see what happens.

**JG:** So you had to rebalance it every time.

**CJ:** Yes rebalance the thing. Of course it's all done, we do it all the time over at the shop now but we didn't have that kind of equipment.

**JG:** So you just manually added weights to the blade?

**CJ:** Yes, you found out what it was and you would tack them on there see.

**JG:** Tack them, okay.

**CJ:** Tack them on there, where they would stay there.

**JG:** Okay. Well let's talk a little bit about, you've given us a lot of good details about that, but a question that keeps coming to my mind is, and you've eluded to it is, just the working conditions. Talk a little bit more specifically about, you know, you mentioned the fan and Mr. Elijah having to clean out the furnace and everything, talk a little bit about the working conditions when you first started and maybe how it changed over the years to when you left. What were some of the other jobs that people had to do around the foundry?

**CJ:** Well you had about...you had the melting department and you had the molding department...

**JG:** Molding department?

**CJ:** Yes, molding department.

**JG:** Okay.

**CJ:** You had the core department and you had the cleaning department.

**JG:** Okay.

**CJ:** Do you have any idea how to make a mold?

**JG:** A mold?

**CJ:** Yes, the mold.

**JG:** Was it somehow with sand or something?

**CJ:** Yes it is out of sand and you had a big box here and you had a pattern that you...here is this box...well (laughter).

**JG:** That is alright; you moved the recorder, go ahead.

**CJ:** You put this box around this and then we used to use carbon bonded sand. It was just ordinary silica sand that had seed, coal and clay was the binder actually and it was mixed over here in a big machine that would mull it up and sent out to the machine here to where this box was and you put this stuff in there and this is the big mold and you had a big table about twice as big as this where this box was sitting on and you go up and down. In other words like that, that is a jolt machine.

**JG:** Jolt?

**CJ:** Yes, jolt machine and that would pack the box. That is only half the mold. Then you had to get on top with a rammer and ram the rest of it because it only jolted right down at the bottom, depending on the weight, so you had these fellows get on top with a pneumatic packer and pack the sand and rake it off. Then you had a ten ton crane that would pull this box off. Of course the pattern would stay there and you had to put this in the oven and dry it and they were dried I think for twelve hours. We had I think four of these big ovens and you would take this box, this is half a mold and you would put it on the cart and when you got a car load you would load it in the oven. See that was only half the mold, yes half the mold, so to make the other half, when we turn it over we've got to make this half right here, so it is the same process. Those two things would match. In other words they had pins so that it would match and you would come out with a casting when you got through. It would be a completed casting.

**JG:** So the mold was a combination of sand and clay.

**CJ:** Yes, and sea coal and some other binders, yes.

**JG:** Yes, okay.

**CJ:** But you had to bake those things. You would bake them for twelve hours because you can't tolerate the moisture again. In other words if you had moisture that thing would blow up.

**JG:** Did that ever happen? Did you ever have any molds that blew up?

**CJ:** No, because...no because they were all dry. You made sure they were dry. I'm sure we had some run outs. See, after you made these two molds you had what you called a cope and a drag. That drag was the bottom, you take the cope and put it on top and that completed the cavity there.

**JG:** Are you saying c-o-p-e?

**CJ:** Cope, yes, c-o-p-e.

**JG:** Cope and the drag, okay.

**CJ:** Yes.

**JG:** Okay.

**CJ:** To further complicate things if it was a gear box and it was all hollow your mold was only this part so it was hollow. The core would go in there and it would be supportive such that the iron could go all the way around this core. You don't know anything about the foundry do you? (laughing) That is alright. So, you had this core in there to form the hollow parts such as a gear box and it was made at a similar process. Back then it was made by a similar process and this clay bonded sand to make the clay activated you had to put water in there of course, so you had to control that very close as to how much water you put. So, when you made a core you had to also bake the cores and we had an oven for that. Well I might as well get off of this but, back sometime in the seventies...you can't pin me down on dates.

**JG:** Yes.

**CJ:** We had a fellow named Bill Trout. You know Bill Trout?

**JG:** Bill Trout, yes sir.

**CJ:** He came there with a fellow from the University of Texas and since I'm an aggie I will never forget this guy. He was a professor and he had Bill Trout all excited that we are going to run out of natural gas.

**JG:** Run out of natural gas.

**CJ:** Yes, in the 1970's. And, all these big ovens we had were fired by natural gas. Well, management got excited and said "well we've got to have fuel." So, they told me to go out and buy a big propane tank. I don't even...it was several thousand gallons that we had to put a tank in and we had a mixture see, you can mix propane with air and get the same BTU output that you get from natural gas. The BTU of the propane is real powerful; it would be too high so you had to mix it with air. So, we put this system in and sat it out in the yard and waiting for the gas to get scarce.

**JG:** Waiting for the...

**CJ:** It never did get scarce so we kept operating but in the meantime there is a new process that comes out. It is called chemically bonded sand and naturally we were using, when I first came there we were using a process that was bonded like that but it was using sodium silicone. You can take sodium silicone, which is kind of a syrupy stuff, mix it with sand and when you pass CO<sub>2</sub> gas through it, it will harden. And I mean it will get hard. It is just like a brick. Well, this process was brought over here to the U.S. right after the war. There was a German, his name was Carver, I can't remember his first name but I remember he was a Carver and he flew over to Germany in his own plane. They said he put extra gas tanks in there. He was a German by the way, but he was born over here I guess, I don't know, but anyway he was a German. He would speak German. So, he went over there right after the war and got a lot of these patents and this was one that he got.

He brought that process back to the States and established a company and his company still operates. But the problem with the process, like I said, the things were hard as a brick, so we used them in certain places but we had a heck of a time getting them out. This was a core, we only used for making cores if I remember and we, I think we finally learned how to put some stretchers in there where it wouldn't be quit as hard. That process is not used anymore. That particular process, but in the meantime the sand process was called chemically bonded and don't ask me what the chemical is because it is made at Diboll in that plant over there.

**JG:** At Diboll?

**CJ:** Yes, they make chemicals.

**JG:** It was Borden, now it is Hexion I think.

**CJ:** Well anyway, they made a chemical that you could use...that is too far back I don't remember what they were, that you had a mixture that you could put these two mixtures in this mixer like this and they would mix in there and put them in the molds and after a few minutes it would get hard by the chemical process. It was like epoxy but they weren't epoxy but it was like that. So, you put that in the mold and it will harden and that eliminated the drying because they were dry already. There was no moisture involved put it that way because you used dry sand.

**JG:** Okay.

**CJ:** All this time you are using sand that you reclaim. In other words, this gets complicated, it is a long story, after you make a mold, this is in both cases whether it is the old process or the new chemical bonded sand, you make the mold, pour the iron in there, get the casting. After a period of time you can shake it out so, you take the molds up with a crane and you cut them on a thick table. It is what they call a shape out table, it is an unbalanced table is what it is and it shakes the sand out and it falls through a grate on this table. This table has a grate on it and the sand falls through and the casting is there on the mold. So, you pull the drag off and then you can take the casting and put it over here in a pile and let it cool off.

**JG:** Could the molds be reused or did you have one mold for one part?

**CJ:** No, no, you used the boxes again. See we had a box around it and you could reuse those of course because they had a big stack. They are all different sizes but the sand when it comes out you do reuse that.

**JG:** But the mold itself is only good for one casting?

**CJ:** That is right.

**JG:** So if you needed a hundred castings you would have to have 100 molds.

**CJ:** That is right.

**JG:** And that goes for everything that you cast?

**CJ:** That is right.

**JG:** Whether it be an eye beam or gear box or whatever?

**CJ:** That is right, you had to have one mold for that casting and the only thing you salvaged out of it was the sand and the boxes.

**JG:** Then you had to start over.

**CJ:** You had to start over again but you did reuse the sand. That is another process when the sand came out you had to process it through...well there is several ways to process it.

**JG:** What type of...kind of in also trying to talk more about working conditions, as far as safety what kind of clothes and protective gear did workers wear?

**CJ:** I found that around the cupola they did wear, if anybody was around it they wore shields for ...from keeping splashes of iron and everybody wore safety glasses. Now they are much more fancy.

**JG:** Now they wear more like a mask or a shield?

**CJ:** Well yes, sort of like a welders mask only it was clear. Back then we only wore the glasses.

**JG:** Just glasses that was it. So your face skin was exposed?

**CJ:** Yes it was exposed because...

**JG:** Your face skin was exposed.

**CJ:** Yes, unless you had an explosion you weren't going to be burned. We didn't have too many explosions because where the explosion took place in the back there was never anybody back there because we were aware that could happen.

**JG:** What about gloves?

**CJ:** Well if you could wear gloves you did but, not everybody could wear gloves because so many things. Of course now around the handling of the iron they did wear gloves but we had asbestos gloves, well I guess we had asbestos gloves back then.

**JG:** Asbestos gloves.

**CJ:** What you were concerned about was the smoke and you'd pull that off through the fan at the top of the building, see it would go out the top.

**JG:** But other than that you didn't wear anything?

**CJ:** If you were exposed to some gases you did wear a very simple mask. In other words it was just like the ones that you can buy at Lowe's out there, in other words. Of course things are different now.

**JG:** Okay. How did OSHA [Occupational Safety Hazard] affect the way y'all worked?

**CJ:** What did what?

**JG:** OSHA, the O-S-H-A?

**CJ:** Well fortunately when they got so strict I was retired.

**JG:** And you retired in 1986?

**CJ:** Yes.

**JG:** Okay.

**CJ:** What I was fighting was EPA because I was responsible for all this stuff that was...well I guess it was both of them because the plant water, in other words, there is a park over here. Do you know where this...

**JG:** Yes, right across the street from Lufkin Industries, the park.

**CJ:** Well there used to be a creek.

**JG:** It still is.

**CJ:** Well up ahead of the foundry though, in other words, it came across there at the end of a scrap yard crane. It wasn't a scrap yard crane, not that far down, that creek came up and it was more like a spring there. Well over a period of time we keep talking about this molding sand, even today it wears out, in other words it gets to the point it where you have to discharge some of it so we dumped it right on the plant sight and have plenty of space and part of that was back there where the creek, where I'm talking about. It filled that creek up and now then the creek kind of heads up under the railroad track now, except some of the drainage, the foundry drainage still comes through there but as a rule it is not as dirty as it used to be.

**JG:** So y'all just dumped it on the ground out by the creek.

**CJ:** That is right.

**JG:** And it filled in the creek there or where the spring was?

**CJ:** Well it finally compacted itself in other words. We reclaimed the property is what we were doing. I don't remember what the elevation was but it must be five or six feet of fill there that we reclaimed over the years, over the whole property over there where we would dump that sand. Then we would fill that and we started dumping across the street. Do you know where Pershing Street is?

**JG:** Yes sir.

**CJ:** You know where that building is on the old building of Lufkin Industries on the left, I mean on the right but, across the street where that sub-station is, Lufkin owns that or yes, they own the property. So, that was all low and so we hauled sand over there for years filling all that in. So there is...it's kind of humped up because of all the sand. Then after OSHA came in we had to start hauling that stuff somewhere else. I don't know where it goes now. I know when I go that way I will see a truck pull out of there with a load of sand. So, that took care of that.

**JG:** So, what kind of injury if someone was going to get hurt in the foundry what was the common injuries?

**CJ:** Hurt backs I guess.

**JG:** Backs?

**CJ:** Yes, from lifting because you did a lot of lifting. We were talking about big castings all this time We had another foundry...well not another foundry but...another building right adjacent to the big foundry where the big castings were made and they were making the small castings, something similar to this. I was talking about the main bay over there...

**JG:** He is referring to a TV remote, a television remote. I can tell it is his remote control.

**CJ:** The other castings I was talking about were bigger than that TV. In other words huge, bigger than a bathtub. The largest thing they make now is about twice as big as two bathtubs, huge castings. That is what we call large casting. These small castings we make the little things from the size of your recorder there up to about six or eight pounds, well about fifty pounds. But anyway, the smaller ones that didn't fit into this foundry so you had another foundry that use the same processes only in a smaller scale. You still used the same sand and you had from the very small castings such as the size of that pencil you had a man would handle all these molds by hand. In other words he had a little machine that would jolt and pack the sand and then instead of having to impact them with that he had a squeezer that after he put the box on there with the drag and put the sand there and jolt it then he would put the squeeze header on there and squeeze it. We have kind of bypassed this but all these patterns are mounted on plates. In the big foundry they are mounted on cast iron plates that the foundry cast but after they cast them they've got



to be machined so these patterned plates as we called them would be sent over to the machine shop and they would surface them off like this table. Then you would mount the pattern on there and it stayed there. I think in every case it would stay on that particular pattern plate. Now that is a...

**JG:** What about fires? Was there ever any fires?

**CJ:** Well you didn't have fire because your floor is all sand, the foundry had some...in other words...

**JG:** Even around the furnace and everything.

**CJ:** You don't have anything around the furnace. You are aware of fire all the time of course and there is no...the only fires you could have would be an electrical fire if you were careless. In other words, overload a circuit or something but that is not...we never had a major fire that I can think of.

**JG:** Now did y'all get the metal...where did y'all get like, did y'all use inunts or pig iron and anything like that?

**CJ:** We used scrap iron.

**JG:** Scrap iron.

**CJ:** That is what the scrap yard was for. The scrap would come in and back then it came in from mostly the railroad maybe from Houston, like this fellow I was telling you that scrap, several of them in Houston, usually they are Jewish, what that has to do with it I don't know but anyway, they are always big in scrap so.

**JG:** So are there different qualities of scrap iron. I mean are they sorted by?

**CJ:** No, not for cast iron no. You don't have to sort it. We would take entire inches blocks, in other words if the cupola is big enough you could put a whole engine block in there and melt it back down to iron. It might have the aluminum in there or something like that but it wouldn't be any problem.

**JG:** So, the temperature of the fire then would determine how pure you got?

**CJ:** That is right, melt all that stuff down.

**JG:** Okay, what was a typical temperature that the furnace would operate at?

**CJ:** About 2800, two thousand eight hundred best I can remember.

**JG:** Fahrenheit?

**CJ:** Yes,

**JG:** 2800 degrees Fahrenheit. That was standard for all different types of things you made?

**CJ:** No, no, because we have overlooked.

**JG:** What about aluminum? Did y'all ever cast aluminum?

**CJ:** That is what I wanted to get around to.

**JG:** Okay.

**CJ:** When I first came there the foundry office itself was in a fairly long building right adjacent to the big foundry, the main bay, but there was an alleyway there for scrap trucks to back through there. In the front of the building was Robert Lang who was the superintendent when I came there and then we had...next door to Robert Lang was...the fellow that did the scheduling...his name was...it will come to me afterwhile. The other two offices back there were for Arnold Tompkins and I and that is when I first came there. Well, across the street from there was the pattern shop and that is where they made all these patterns for the things I'm showing you. You have to have a pattern and you had a bunch of skilled workers in there that made these things out of wood. They would saw them, they did some carvings but they would have to make these patterns out of wood and mount them. Also, you had to have cores. When you had small cores you made them, you made the core box out of aluminum and the core box is the same thing as this bowl was. In other words we had this bowl but now we are going to make a core box. So, we would make this out of aluminum and delete this cavity in there and put two pieces together and then pack it full of the core sand and that would make the...you would pull it out and then you would have to bake that again in the oven.

I want to mention the fellow that was running the aluminum foundry was Houston Davidson.

**JG:** Houston?

**CJ:** Houston Davidson.

**JG:** Davidson.

**CJ:** And he had a black fellow with him named Carl Ross and those two guys were really good at it.

**JG:** Ross?

**CJ:** Ross, Carl Ross, R-o-s-s.

**JG:** R-o-s-s.

**CJ:** Well about this time Al Cudlipp and another fellow, who I can't remember his name, but this fellow came up and went to Al Cudlipp and said...

**JG:** Is that Cudlipp?

**CJ:** C-u-d-l-i-p-p.

**JG:** Yes.

**CJ:** This fellow came to Al Cudlipp and said Lufkin needs to make a chainsaw. So, they went to the engineering department under Bayo Hopper then. I remember Bayo Hopper designed the parts out of aluminum.

**JG:** Aluminum!

**CJ:** In other words the main parts. Now the engine, they bought that. It was a little two cycle engine that was staggered and they bought that.

**JG:** Do you know who they bought it from? Who the maker was?

**CJ:** No it was a common maker. If you haven't seen one there is one out at the...

**JG:** Forestry Museum.

**CJ:** One out there. (laughter) I wanted to say they dumped that in my lap, but they said here you produce these aluminum castings and we had to make the gas tank and I don't remember the other housing parts. Well we made them but it was...

**JG:** Was the frame all out of aluminum?

**CJ:** I can't recall, I guess it was. I really can't recall about that particular chainsaw, but we had to make some of the complicated parts and we had lots of problems.

**JG:** What about the chain?

**CJ:** No, no, we bought that because that is steel you see. We bought the chains. All the things we made was the gas tank and the handle, I can remember that. Anyway, that process said here you take this into the aluminum foundry. Well we built another foundry for that to produce these castings, these aluminum castings.

**JG:** Just for the chainsaw?

**CJ:** Not just for that because sometime in the same period there, I don't know when it was we had to...Lufkin had been buying the bushings, the main bearings where the crank

shaft returned the cranks was big bushings in there that could be from that big to ...and those are cast out of aluminum...not aluminum...leaded bronze. And they had been buying them from a foundry over in Beaumont, and I can't remember the name of that foundry but again, good friends to the Trout's. I don't know why but they must have had some sort of a falling out.

**JG:** Bethlehem?

**CJ:** Who?

**JG:** Bethlehem?

**CJ:** No, it was a bronze foundry. Anyway they were producing these things over there, so they said we are going to produce them ourselves. So, that is really why we built that foundry. They were built out of leaded bronze and leaded bronze is bronze that has lead in it but the lead is not in alloy form. It is in flakes in there.

**JG:** Flex?

**CJ:** Flakes.

**JG:** Flakes, okay.

**CJ:** And what would happen if the gear box ran out of oil the...in other words if ours weren't lubricated the lead would lubricate the bearings in other words, keep them seasoned. I don't know but anyway we started producing those things. Well, in the meantime this Houston Davis that was running that got sick and it turned out he had lead poisoning and what happened was we were melting that stuff and he was breathing it. We had a little crucible...

**JG:** Crucible burn.

**CJ:** ...that is the little clay pot that you fire around the outside and you exhaust it up here.

**JG:** Right.

**CJ:** Again, it is with gas and he developed lead poisoning.

**JG:** From breathing the fumes of the lead?

**CJ:** Yes, the lead oxide.

**JG:** The lead oxide.

**CJ:** Okay, won't say we...but we knew or somehow heard about a fellow up in Indiana that had this same problem and he designed a process for minimizing. He didn't eliminate; he minimized it.

**JG:** Minimized it, okay.

**CJ:** What we did, we built the first of all, let's see I designed all this. I built a hood around these furnaces and had a sliding door here and a sliding door here, and when this door went up this one went down and you would charge the metal in and then when you got it melted you would slide this door down and pull this one up and get the metal out. In the meantime one of these doors was open all the time and you had a huge exhaust fan up here that was pulling air out and blowing that stuff out. It was contaminating the area around there and I always worried about that but as far as I know it didn't hurt anybody else. He was getting concentrated doses of it.

**JG:** Was there anybody else that got sick?

**CJ:** There may have been another fellow but he didn't get as sick as he did. But, anyway they cured him of it. They knew what it was, and found what it was and he was cured and he lived way on up there.

**JG:** Was he an employee of Lufkin Industries?

**CJ:** Oh yes, he was. He was and there was another fellow, but I don't know if he got sick. If Carl was still there I don't know if he did, but anyway that alerted us that we had to solve that. Not only did the melting, but when you poured the mold the stuff was always coming off, so where we poured the mold we had a big hood over that and were exhausting that air too. So, it sucked all that contaminant air out into the atmosphere.

**JG:** Right downtown huh?

**CJ:** Well, pretty much. It was so diluted see.

**JG:** Okay. Let's talk about some of the people you worked with. You made a list over there. We were talking before we began about Robert Lang, L-a-n-g. Tell me about him.

**CJ:** He was the Foundry Superintendent.

**JG:** I think he began about 1929, if I'm not mistaken.

**CJ:** That is probably right.

**JG:** He was there a long time when you started, huh?

**CJ:** Yes, he started...he worked as a molder though.

**JG:** A molder.

**CJ:** Yes, he worked, but was promoted though. That was the good thing about Lufkin; they always promoted within, they always promoted within. Well, I'll say this right now because it is not the company now, they bring in outsiders. When I worked for Lufkin Industries it was a family company. Lufkin was a family company because everybody was kind of treated like family. In other words the Trouts always looked after their employees. They tell me during the Depression that they were around the foundry at least one day a week so that the employees would have some money because it got rough back then. I don't remember that, but they tell me that, so anyway they always took care of us. The attitude changed after they started going out and getting these outside directors because the whole time I was there...

**JG:** Was that a result of the company going public?

**CJ:** Well part of it to do with that, but before then all the directors were the original descendents.

**JG:** The original family.

**CJ:** Yes, the original family.

**JG:** The Kurths and the Trouts and the Wieners and the Hendersons.

**CJ:** The lawyers over in Shreveport, yes and the Henderson's. There is a lawyer over in Shreveport. I don't know who could...

**JG:** The Wieners I believe.

**CJ:** I think I know who instigated bringing in some outside blood and I won't say who it is, but I think I know who it was. But anyway they brought in some outside directors and the place has changed over a period of time. It is not the same company. An example of that, we had a group that we called the Retired Employees of Lufkin, I don't know exactly what we called it, but every Wednesday of the every month, I mean the first Wednesday of every month, we would meet as a group and tell stories and somebody from Lufkin would usually come and bring us up to date of what is going on. And it started out with an organization with about 60 employees, when I was going in this organization that we would meet every Wednesday, and then Lufkin would have a fish fry every May and all the employees were invited. All the employees plus the retirees, so we always looked forward to that. Well, after this new group came in on the Board of Directors, the outsiders, the attitude of the employees changed. We didn't have any, I say we didn't have any we had a few of the new employees would come eat with us, but the rule none of them did. In other words a lot of retirees said, well the club just went down, down, down. Even Bob Poland and you know who Bob Poland is?

**JG:** Yes.

**CJ:** He was a resident over here and I used to take him to the meetings and I found the last time we went he just couldn't hardly make it and he fell and I grabbed him and it was right outside the door of Lufkin Barbecue and he fell and I fell back and banged my head. I thought...it knocked me out for a minute and finally I recovered and he didn't go back any more. I went a few more times.

**JG:** I'm sorry for laughing, but...

**CJ:** The club disbanded because we don't have that spirit anymore like we used to have. That gets that off my chest.

**JG:** So, Mr. Lang...

**CJ:** Robert Lang was the Foundry Superintendent and he...

**JG:** Was he your boss?

**CJ:** Yes, yes.

**JG:** Okay.

**CJ:** And then up and again, I don't know exactly the time but I think in the 70's he...T. J. Schuller...

**JG:** Mr. Lang retired in the 70's?

**CJ:** No, he died.

**JG:** He was still working when he died?

**CJ:** Yes, he was still working. He just didn't wake up one morning. And it shocked us all, it shocked everybody. He was a smoker and I'm not a smoker, never did smoke, I'm a health nut and I would always kid about this. He would say, "oh I went to the doctor and I'm fine." Well, anyway that is another long story.

**JG:** Who took his place?

**CJ:** Well I was thinking that I was but it wasn't; it was Rod Pitman. I hate to mention Rod Pittman, but he is dead too. He was younger than I was. He was a lot younger than I was, but let me get up to him.

**JG:** Okay, go ahead.

**CJ:** He came sometime in the late 50's and he came to work with Arnold I think. Then Arnold left and then I was in charge back there, but I didn't exercise any authority

because Rod was...he wasn't an engineer but he had technology, so he had a lot of good work. Well anyway after Lang died, well they had to make an appointment so they appointed him as Superintendent. He was, I can understand why, I was not a go getter, well I won't say a go getter, but he was involved in a lot of things. He was a member of the Rotary and things like that and I wasn't.

**JG:** He was more outgoing or more active in things outside of Lufkin Industries?

**CJ:** Yes, that is why he was appointed. It disappointed me of course, but after a few years I realized I wouldn't have been good at that anyhow because I was an engineer and I liked to design things and because I designed so much in that foundry. In fact he designed a machine over there that is still being used. We had a problem with a core box. Well, we were making molds in two pieces and putting them together like this. Well, he and I came up with the idea of turning that over and putting it together like this, but then you had to separate it. He designed a machine that is still operating. I saw it the other day and it is still operating. He got that job and I guess he had it until I retired, whenever I retired he still had it. After he got it somebody else got it because he was promoted to sales, yes that is right. They thought he would make good sales...I think he was promoted to sales manager. And...

**JG:** What about Earnest Lord?

**CJ:** Okay, that is another good story. He came to the foundry in '55.

**JG:** He did or you did?

**CJ:** No Earnest came there right after the war, because the reason I wanted to mention him was that Sam Kerr, who was an older fellow, Kerr was a famous, local Kerr family, well Sam Kerr was running the pattern shop and Earnest came as a pattern maker.

**JG:** Pattern okay.

**CJ:** A pattern maker, but what sticks in my mind, he was just out of the Navy. This is just before I came there now, just came out of the Navy and Mr. Kerr told him to build a stairway up over the office to store stuff. So, that stairway was built and it was just like in the navy. In other words it was just like that.

**JG:** Real small huh? (laughter)

**CJ:** He didn't take up any room in the bottom it was just right...but it was a stairway.

**JG:** Like on a ship huh?

**CJ:** Yes, so that is my memory of him. Then he...let's see here...he finally got to be, Sam Kerr retired and he got to be pattern shop Superintendent and then later he was



Assistant Foundry Manager. We had a fellow in there whose name was Seymour Curtis and Seymour started at the same time. I gotta have a drink of water.

**JG:** Okay, I will pause it for just a moment then.

**[RECORDING PAUSED]**

**JG:** Okay we are back. He had to take a little break.

**CJ:** We were talking about Earnest Lord, he was the Foundry Superintendent. I think that was after I left again though and I guess after Rod went over to sales and when that was he went over in sales department. Franklin Weeks, have I mentioned him?

**JG:** Oh yes, talk about Franklin Weeks. I knew Mr. Weeks, talk a little bit about him.

**CJ:** Franklin Weeks was in the office right next to Robert Lane and his job was to schedule. He would take the orders from the castings that the...I guess came from the machine shop. I don't know exactly all the details, but anyway you would have orders from the castings but it was his job to schedule them so that they would come out at the right time. You had to schedule a casting: you had to have the mold, I mean the cores and everything so that was quite a job to get everything. But he had a big board. I don't know how it all worked, but these fellows would come in and look and see what their next project was. The fellow in the main bay, we had to have a superintendent there, and the last one I remember was Craft Fenley. He was superintendent of the main bay, a foreman not superintendent. I cannot remember...it will come to me in a minute, he was from Diboll. We had to have somebody to run the core room. I can't remember his name; he lived at Diboll. And then we make all these castings and we have to clean them. When you shake them out of the mold we have to clean them. Well, back then the way they cleaned them was with a shot blast. It is the same thing as a sand blast but it is a shot blast. It is real small, smaller than a bb and you have a...

**JG:** What is the word you are saying?

**CJ:** Shot, s-h-o-t. You had this big room and you would load these castings on a car and push this car in there with a fork lift as I remember and close the door and here comes this poor soul that goes in there with a hood on. He has got a hood on and he has got an air hose at his back so he has always got air in his hood and he is taking this hose and blasting this casting with this hose to clean it.

**JG:** And he is breathing oxygen through the hood.

**CJ:** Not oxygen just air.

**JG:** Just air?

**CJ:** Fresh air.

**JG:** Oh okay.

**CJ:** But fortunately, I don't think he ever...well this air came from the air compressor and we didn't have a filter on there that I remember. This was again before my time. See, when you compressed air you've got some oil that is misting in there because of the compressor. This compressor were the piston type.

**JG:** Yes, piston compressor.

**CJ:** Now then the compressors are all centrifugal so you are not breathing.

**JG:** Oils the pistons.

**CJ:** Yes, but there is bound to be some mist in there. This fellow beside that...well, he was hired that way and I think he was deaf. They called him dummy and he could talk to you but you would have trouble understanding him. I didn't talk to him very much because it wasn't my project. At that time I wasn't involved with it, but we should have had a filter on that back then, but as far as I know he never was sick or anything. He should have been but he retired as far as I remember.

**JG:** You don't remember his name?

**CJ:** That is too far back. That was the environment that you were talking about.

**JG:** Yes, working conditions, yes.

**CJ:** After they sandblast these things they go out in the cleaning room and these guys take chip and hammers and grinders and they smooth all these rough spots are. In other words, where the two parts came together and you had a joint there that might have a fin there, you had to clean off. You have to clean that off and that was the cleaning room and it was real noisy because they used chipping hammers to blast this off with and it depended on how bad the mold was, in other words. You could have a lot of defects and sometimes these defects were such you had to scratch a casting. I cannot remember the man in the daytime. I should have, but we had another black guy that this department ran two shifts, well as far as that is concerned the main bay factory ran two shifts, but the core room only ran one shift back then. But the cleaning room they were always behind. They couldn't keep up. They were always behind on castings.

**JG:** Was the foundry unionized?

**CJ:** Yes, I don't know when the union came in. That was before my time?

**JG:** Were you ever in the union or were you strictly management?

**CJ:** No, no, I was strictly management.

**JG:** Talk about were there any strikes?

**CJ:** We had one strike when I was there for three months.

**JG:** Three months.

**CJ:** No, I think we had two but the main thing was the three month strike in the summer time because I had my nephew wanting a job, so he came and worked during the strike in the maintenance department, but anyway during the strike the management ran the company. In other words we brought over engineers, people from sales over into the foundry and we all had jobs. Now Rod Pittman, he ran a crane that handled the molds and I don't know what all the other jobs were.

**JG:** Who did the cleaning out the furnace and stuff? Who did some of that kind of work?

**CJ:** Alright, just a minute.

**JG:** I mean maybe not the person's name but what...I mean if that person is on strike who would do some of those dirty more physical jobs?

**CJ:** I will have to think back a minute because we didn't...see ordinary the foundry ran five days a week but during the strike we didn't. I think we only poured one day a week because with less people we had, we couldn't make enough molds in other words. So, how in the world...I guess somebody, let's see, Johnny Kind was a metallurgist but I know he didn't do it. We must have had somebody come in.

**JG:** Somebody from outside?

**CJ:** No one of the workers, some of them crossed the picket line.

**JG:** We are talking about whoever you were talking about earlier, John Elijah, the black man that did all that cleaning and stuff but like those kind of jobs.

**CJ:** Well in the cleaning room, us management had to do that too. In other words that is why we had all these folks come over from the other side. These folks in engineering we had a lot of them over there and a lot of them goofed off but we (laughter)...

**JG:** How did that affect production?

**CJ:** Of course it knocked the heck out of it. We used inventory I guess, in other words.

**JG:** So for three months I guess you weren't able to fill orders and things and commitments right?

**CJ:** Well see, it would go up and down, up and down, because just like in 1980 whenever I retired there was a lull period there. They were laying off a lot of people and in my case they said you can either keep working or if you retire...I retired at 60, and said if you retire we will pay you until you get 62. In other words the difference in your social security. I don't remember exactly but I got a stipend for my retirement to make up for social security, because then after I started drawing social security. I don't know how that worked. I got an extra amount until I reached 62 and then I retired. I mean I was already retired. I retired at 50 but didn't draw social security until I was 62.

**JG:** You mean you retired at 60?

**CJ:** Yes, I retired at 60 but didn't get my social security until I was 62. But, they said we want you to stay and you've got two weeks to make up your mind and when the period came to tell them I said "I'll retire" and I don't regret it.

**JG:** You said you retired in '86 and you would have officially been 62 in '86?

**CJ:** Yes.

**JG:** Okay, okay. So, is there anything else you can share about working with the unions?

**CJ:** Well I didn't have anything to do with the unions. That was one of the reasons I was glad I didn't take that job.

**JG:** Oh the one Rod Pittman got so you didn't have to.

**CJ:** Yes, so I didn't have to fool with that.

**JG:** You didn't have to fool with that.

**CJ:** I haven't mentioned Seymour Curtis and Seymour was another long time employee and he would end up as superintendent as I recall. I worked right under Robert Lang. I think he stayed there after Rod took over the job. I don't remember. Because, see (laughter) well, I probably...

**JG:** Go ahead.

**CJ:** Seymour didn't have a very good reputation with the blacks. He always kind of...you don't have to mention that. He was of the old school. I will put it that way, and before I came there this was a sideline that...well, for awhile when business would slack off Arnold...this was way back there in the early years, Arnold Tomkins and I were suppose to go out and hustle business in other words. I went out I don't know how many times really but he was their senior employee back there then but anyway we got a job from somewhere, I don't remember where it was and I had to do the calculations to figure the cost and somewhere I made an error in there and the company lost a little money but it wasn't a huge amount in other words because this was kind of a sideline. I didn't loose

my job over it. I don't know if the Trout's even said anything because back then we were working for Ed Trout.

**JG:** And what was his position at that time?

**CJ:** He was vice-president right under his brother who was president, W. W. Trout, was the president at that time.

**JG:** So you reported to, I forgot who you said, Lang in the early days was your boss and then Lang reported to Ed Trout?

**CJ:** That is right, yes. Ed Trout (laughter) used to come over to the foundry in his Cadillac and park just outside the foundry office and blow his horn and that used to upset Robert Lang for him to blow his horn wanting him to come out there for curb service. He would come in but then when he came in he would prop his feet up on the desk and all (mumbling).

**JG:** So when he wanted to see him he just pulled up and honked his horn huh?

**CJ:** Yes and I wanted to mention Bobo Hayes. One of the aluminum products that we made was a little casting for the pumping unit and it was a little old thing that was made out of aluminum and it looked like a top hat but it was only about two inches tall and it was...we made that in the aluminum foundry. And, Bobo Hayes was one of the foreman over in the machine shop but he would take those home and machine them himself. That was a little sideline for him that he machined those things on his own at his little shop. He used to always call me and say you got any castings for me? And, I would say yes. Same way with, you don't know the fellow that made the models.

**JG:** The what?

**CJ:** Just a minute it is coming to me. This fellow he didn't work in our department but he worked in the machine department to make the models they would take to the trade shows and stuff.

**JG:** The models, okay. How big were these models?

**CJ:** Usually about like that.

**JG:** He is saying about a foot, foot and a half or so.

**CJ:** Yes, just a pumping unit.

**JG:** But it was to scale huh?

**CJ:** Yes, it was to scale, yes, very good.

**JG:** Was it operable?

**CJ:** Yes, it had a motor on it, yes.

**JG:** Was it like battery powered?

**CJ:** No just plug it in.

**JG:** Just plug it in, electric okay.

**CJ:** I was going to mention Bob Beddingfield. Have you ever mentioned Bob Beddingfield?

**JG:** No.

**CJ:** Bob Beddingfield was a electrician, but he was real good. He was a real nice fellow, church going fellow and his wife is still living down the street down there. I don't know how she is making it. He died many, many years ago.

**JG:** What are some of the other products you made? You made castings for the oil field, the pumping units, gear boxes I guess.

**CJ:** Yes, before I came there all I heard about was the Matheson rings.

**JG:** The what?

**CJ:** The Matheson rings. That is a chemical company somewhere, I don't know if it is out of Houston or Beaumont or where but it is a chemical company and they made some huge castings for them and they used to always talk about the Matheson. That was before I came there.

**JG:** Rings, r-i-n-g-s?

**CJ:** Rings, r-i-n-g-s. I assume, I don't know how they used them but they talked about the Matheson rings. They were proud of them.

**JG:** They were real proud of them. And what was that used for the Matheson rings?

**CJ:** It was a chemical plant so no telling where it was used.

**JG:** Okay, did y'all make stuff for the trailer plant?

**CJ:** Yes we were, now that you mentioned it. I forgot to mention that. It is a little foundry and you've already talked to Jim so you know about the trailers. Well, up in the corners up at the top on the front of the trailer there is a curved casting or was, and we

had to, used to have to make those for them. I forgot what they called those things but we cast those in aluminum for them.

**JG:** At the top of a van on the outside?

**CJ:** Yes, at the top of the van on the outside. It waterproofed that corner see. See the curve in front of the trailer was flat and then it curved around like this and...but it curved at the top.

**JG:** So it just hid the seam where the top and the sides came together?

**CJ:** Yes, where it came together and I presume they caulk it or something.

**JG:** And that was aluminum?

**CJ:** That was aluminum.

**JG:** Okay, I've seen that. I know what you're talking about. I don't know what it's called.

**CJ:** Well we made those for years.

**JG:** I've seen some photographs, maybe it was before your time, of the engineering department and it was just a big room with a bunch of drafting tables. Was that where you worked?

**CJ:** No, I had my own engineering department, see.

**JG:** You had your own engineering department.

**CJ:** That engineering department we were a ...I won't say we were a step child, but we had our own little regime over there.

**JG:** Your own regime. (laughter)

**CJ:** Yes, it was the foundry department so that is where I was chief engineer because Bayo Hopper was over there at the other one and he had many, many, engineers, where I only had Rod Pittman. I trained quite a few that came through there. In other words when you hired...when Bayo or somebody would hire a new engineer over there, they would send them around to all the departments for maybe a month of so...

**JG:** For orientation like?

**CJ:** For orientation, that is right, so I got to meet a lot of them that way, but...

**JG:** How many did you have working for you?

**CJ:** Well I guess, one, two, three, about...I haven't mentioned Scott Semlinger, he worked for me.

**JG:** Scott who?

**CJ:** Semlinger.

**JG:** Scott Semlinger.

**CJ:** You haven't heard of Scott? Well Scott, that is funny...well I'm 90 years old I can't remember everything. But anyway Scott was in my department. He was top of the line. He was real smart and I used him a lot. Then I had Bill Spencer who came over from the trailer plant and I had one other but I can't remember his name.

**JG:** Did you hire any Longhorn engineers or were they Aggies? (laughter)

**CJ:** No, No. I beg your pardon I did too!

**JG:** You did!

**CJ:** I can't remember his name up there but he was...he didn't work too long because for one thing, he... well is that the one that split up with his wife, we had one that his wife kicked him out...he was living over in a motel and I don't know whether that was him. Then another one his wife couldn't stand the pine pollen here and he had to quit.

**JG:** So where did some of the people come from that you hired? What was their background?

**CJ:** Mainly it was...of course...Scott came from A&M with a bio-medical degree. Like a lot of kids he didn't know what he wanted to take so he took that. He was a good engineer. About the time he came over computers were coming in and I am of the old fashioned type, we did all our calculations with a slide rule. You can't do that anymore. It has got to be calculations and we didn't know what computers were. We made all our drawings with a pencil. In fact right at the last I would make a sketch of what I wanted and give it to a draftsman and he would do it and he was already taking computer design and he could do it with a computer and I didn't know, but that all came in just as I was leaving, in fact all computers.

**JG:** Right when you were leaving huh?

**CJ:** In the foundry we used to have a time card and when a guy would punch in he would punch in...he punched a time card for his paycheck and then he would punch a timecard for his different jobs and that is how we kind of kept cost of the time on the different jobs.



**JG:** Like the different departments and things.

**CJ:** Yes, then they converted part of that to IBM and punch cards. Did you ever see IBM?

**JG:** Oh yes sir.

**CJ:** We had those and then it finally got their computers and that is about the time I left.

**JG:** My father was a computer analyst, programmer analyst, so when I was a kid we used to play with old computer punch cards and sometimes we would go up to my dad's office and we would write our name and it would punch out the letter.

**CJ:** Okay, now where did you go to school?

**JG:** I went to Lufkin High School, graduated in '85. My dad worked for Temple in the computers.

**CJ:** In other words you haven't gone to college yet?

**JG:** Oh no I did, Stephen F. Austin.

**CJ:** Okay. I kind of guessed that. Your dad worked for Temple?

**JG:** Yes sir. Well, just saying the word Temple made me think of Bill Temple. Did you know Bill Temple?

**CJ:** Oh yes, very well.

**JG:** What did he do?

**CJ:** Bill Temple was...

**JG:** Did you work with him much?

**CJ:** No, but I ate lunch with him. His wife was a teacher and I had a Model B Ford.

**JG:** A Model B Ford?

**CJ:** Yes, Model B Ford, that was the first V-8 that they came out with and that is another long story that my younger brother bought it and went to Canada in it and came back and I bought it from them. He and another guy went to Canada and came back and...

**JG:** So was it a flat head V-8?

**CJ:** Yes, a flat head V-8. I took the motor out and put another motor in it myself. In other words I got it from Sears & Roebuck. So, Bill Temple's wife was a teacher so I used to pick him up every day at lunch and we would go to Perry's Cafeteria.

**JG:** Okay.

**CJ:** Have you ever heard of Perry's Cafeteria?

**JG:** Yes sir.

**CJ:** Okay, we would eat lunch and so. What in the world did he do though?

**JG:** Well that is okay.

**CJ:** Well somebody will have to tell you that. I ought to remember that.

**JG:** So you used to have lunch with him huh?

**CJ:** Yes, I knew him real well because, a real sad story. Did you know him?

**JG:** A little bit, yes sir.

**CJ:** Well what happened was he got some sort of an infection and it was serious and they had to cut off...in other words it spread real fast. I can't remember what they called it but you really got to be careful. If you don't feel right you need to...this stuff spread fast and they had to cut off part of his fingers and cut off both of his ankles. I don't remember whether he ever had...what do you call them? But anyway it was real traumatic. He was always upbeat. He always had a joke. He was a real fine fellow, always had a joke. He was a Temple from another, from Texarkana. That is where the Temple's came from.

**JG:** You mentioned the computers that they were just coming in when you were leaving. Any other ways that technology affected, changes in technology affected the way Lufkin Industries operated during your time?

**CJ:** No I guess that is about the time...except for the new processes and then, well you are going to be exposed to this. I will tell you this story. You know that GE is fixing to expand the foundry?

**JG:** Yes, just what I read in the paper.

**CJ:** Okay, and they are going to tear down part of the east end of it and build part of a new one and then come on down and tear the rest of it. Well, they are doing away with this cupola. We got a cupola there now that needs to be replaced, as I told you.

**JG:** Dates back to when you were there huh?

**CJ:** That was just as I was leaving, but in that case we contracted with a manufacturer to re-do the whole thing. The way we loaded the coke and all that was automated because most of it was done a batch at a time but, it was automated back then. Then we put in a real expensive...we put in this cupola and we put in the bag house system that I didn't approve of. In other words I was overruled. They said, "no this is cheaper so we are going to put this one in". Well, we had nothing but hell with it. In other words we tried to maintain it, so I went back and said let's put in this new system that I proposed already. So they did that and it is still operating. I can't remember the name of this old guy was from California. He was an old fellow and old schooled but he was experienced in this type of work and we got a huge bag house that is nearly as big as this room. Do you know what a bag house is?

**JG:** No, is it like...

**CJ:** A bag house is where you take the dirty gas...

**JG:** Spell it.

**CJ:** B-a-g.

**JG:** B-a-g, bag house, okay.

**CJ:** You take the dirty gas and you suck it into this big box and it has bags hanging down and you can do it two ways. You can blow the air in and have dirty bag and this way in the bag, in that case upside down, or you can bring the dirty air on the outside of the bag and the dust collects on the bag and you suck it out the top. Just like a vacuum cleaner only bigger, much bigger. So anyway, this fellow, the bag has to be the right composition because of the composition of the gases and he had all that worked out. So anyway that worked out, but it was an expensive system. Well, anyway that was one of the big projects that I had. The best thing that...well I will put it this way...the smartest thing I ever did when I worked for Lufkin, I say the smartest, when you have a centrifugal fan, a centrifugal fan is like on your room air conditioner, it looks like a squirrel cage and it spins and it blows the air from the outside sucks it from the inside; alright in certain cases you want to control the amount of air that you are sucking. In other words, you don't want to suck too much air or not suck enough. So, the way you would do that is put a baffle in front of the intake and cut it down and you are still using the same amount of horsepower to spin that thing, to suck it but...you are sucking it...but that was very inefficient. Well, in the mean time they came up with these diodes and the diodes changes the frequency. Don't ask me how; I'm not an electrical engineer. But we bought this thing and I don't know how much it cost us. I don't remember. It wasn't that expensive because we had this 500 horsepower motor again that was sucking on this bag house. This thing, this motor was turning at 600 rpm's well, we didn't need to turn that fast. This diode, you could dial, this is real common now, you would just dial what you wanted and slow this thing down and slow it down to whatever you wanted. You could get that thing to where it would just barely turn or just as fast as you wanted it to by just

turning that dial and that is used everywhere now. But I bought the first one. I always said that is about the smartest thing I ever did, because all this time we were choking these blowers off with this baffle and now you just control the amount of horsepower you put in there so.

**JG:** And didn't have to have all the baffles and things.

**CJ:** We didn't have to have the baffles at all.

**JG:** Was your office, were the offices air conditioned when you started or did they become air conditioned at some point? Do you remember?

**CJ:** They must not have been because I would remember where the air conditioner was but of course they were heated.

**JG:** You had heat but not a.c.?

**CJ:** Now that is funny; I can't remember that. No they weren't because it was a central system.

**JG:** But it was air conditioned when you left, right?

**CJ:** Oh yes, we built a new office.

**JG:** Built a new office okay.

**CJ:** Yes, because where the old office was there is another foundry there now. That is another long story.

**JG:** Was that in the early eighties?

**CJ:** Yes during the eighties we did this big expansion. I think it was, I don't know how many million dollars it was but it was during one of the surges in the oil production and so we wanted to produce all these castings. So we had this firm out of Chicago come in and design this new, this new foundry. In other words and this huge building and big tests and all that and wham! The bottom fell out of the market and we dropped the whole thing.

**JG:** What did you drop?

**CJ:** The project I meant.

**JG:** Oh the project. Oh!

**CJ:** We just dropped the project. In other words you will use what you got.

**JG:** It was too much huh?

**CJ:** That was a big disappointment because we were really going to be in high cotton. We had this thing all mechanized.

**JG:** Who was the CEO then, was Mr. Poland the CEO at that time?

**CJ:** I believe he was, now that you mentioned it, he was.

**JG:** So, they weren't ready to spend that much money?

**CJ:** Well no, not if it didn't have a return on it; you've got to have a return. You can't...they quit the project because the bottom dropped out of the oil market.

**JG:** Oh okay.

**CJ:** What are you going to do with all those castings if you can't sell them? They were smart...it was a smart deal, now like I said they are still utilizing that building. There have been lots of changes since I've been there. But getting around to the expansion that GE [General Electric] is doing, there is a sub-station there on the corner of...whatever that street is...Raguet and Pershing there is a big sub-station there. Well, we had to put that in...I don't think I discussed this but there was a point where we couldn't get any coke. I told you about the shortage of natural gas? Well then there was going to be a shortage of coke so we said well we will have to put in electric melting because if we can't get any coke to run the cupola. Well, we spent several million dollars putting in this electric furnace and for the life of me I can't remember if it was one or two but anyway, we put this electric furnace in and there was nowhere near enough power. All the power for Lufkin came from a sub-station out there north of Lufkin. It all came from there and there was no way we could get that much fire. We went to TP&L [Texas Power & Light] and I can't remember that guy's name, and they agreed to put the sub-station in out here. The big transformer is for the rest of the plant but the smaller transformer was for the electric furnace. We operated that electric furnace for several years and I don't remember why we finally shut it down. I guess because it got to be too expensive. I don't remember but anyway.

**JG:** How did it compare to the other furnace, the coke furnace?

**CJ:** Well...

**JG:** Was it as good or worse?

**CJ:** It was probably better because you only melted iron and you could melt it, if you choose to scrap carefully you didn't have as much slag like you do with the cupola – you got all kind of slag. We had slag but not near like it was.

**JG:** Now what did y'all do with the slag again?

**CJ:** Gave it away.

**JG:** Gave it away!

**CJ:** There is many a country lane, you know, people would come get it to put in their yard, not yard but driveways.

**JG:** Driveways and stuff.

**CJ:** It wasn't very good for that.

**JG:** It was too light isn't it? It's kind of lightweight.

**CJ:** Yes, too light. It was crushed and then but I think...I can't remember exactly...I can remember seeing them haul it off but I can't remember...

**JG:** Where it went?

**CJ:** No, it's too far.

**JG:** Talk a little bit more about what it was like working for a company like Lufkin Industries when you were there.

**CJ:** Well I've already mentioned the fact it was a family owned company. In other words they believed in taking care of their employees. They offered me stock after about two years, in fact I think I bought stock from Ed Trout as I recall. I bought maybe two shares or ten shares in other words. I went to the bank, by the way I'm single if you didn't know that; I never married, so I don't have too many expenses. But anyway I went to the bank to borrow the money for this stock because I forgot how much I borrowed but I went to the bank and I said, "I need to borrow the money I want to buy some Lufkin stock." She said, "Well what security do you have?" I said, "well I've got the stock." She said, "Well you've got to have more than that." I will never forget that old gal. But I had already started...I've been investing in stock from the second job I worked out. I went to the dividend investment plan and I have just accumulated and accumulated and now I just live off my dividend. But anyway, I thought it was unusual that she said, "Oh you've got to have more than that." (laughter) The stock wasn't good enough. That was the only loan I ever made. I have never borrowed any money since then, except I owned a house before I came over here, but I have had cars and motor homes and things like that.

**JG:** Did you ever visit any of the other foundries Lufkin Industries had outside of Lufkin?

**CJ:** Yes, we did that all the time because to get out errors. In other words...I'm going to have to knock this off after awhile.

**JG:** Sure, yes, yes.

**CJ:** Not right now, but my dog wants to go walking. Every two years we would have a foundry conference and that is when all the foundries in the United States would get together and run by the American Foundry Society and we would have a convention and it would be in different large cities. It never was in Lufkin because we weren't big enough, but Atlantic City. The first one I went to was Atlantic City, they don't have it there anymore because...in Chicago and Cleveland and anywhere there was a lot of foundries, in Pittsburg.

**JG:** Pittsburg, yes.

**CJ:** Anyway you would go to these conventions and pick up new ideas and you would run up a nice expense account and they never questioned you. Lufkin never questioned you. That is what I'm talking about it was a family company. They knew you padded that expense account a little bit, but anyway, you would visit these...there was always a foundry visit involved in all of these conventions. I've visited foundries all over the country. I've been overseas a few times.

**JG:** What about some of the other Lufkin Industry Foundries?

**CJ:** We don't have any more. There weren't any more foundries. Well, there are now but not then.

**JG:** I read, I forget where it was, there was one in Arkansas during your time, that y'all bought or something.

**CJ:** Oh yes, that is right. We bought that during Rod Pittman's doing. I didn't approve of that either, because...

**JG:** That was just outside Little Rock, I believe.

**CJ:** Yes, it was...I can't recall the name of it. They bought that foundry because they thought they would get a lot of production out of it and they did, but it was run by a real nice guy but he wasn't a foundry man. They made castings. There was no question about that. They had a different type of melting. They had what you called an induction furnace where you had a crucible and you would induce a current around it that forms...it is like...well what is it like...like a transformer in other words. This coil around there keeps the metal and that is what you call an induction furnace because we had...I think we put one in Lufkin before I left.

**JG:** Okay, okay.

**CJ:** Anyway, I had to go over there several times and put some equipment in. In other words upgraded it, and finally I forgot what happened to it. This fellow that was running it over there, I thought I'd never forget his name, Coulter...something Coulter, Bob, Bill...anyway...after the foundry closed he came to Lufkin and went in sales and he got laid off. And, that was after I was retired and the poor guy he was in his fifties, I think he

was 55 and he well, you can record this but it is alright. He was in his fifties and couldn't find a job so finally he was a big Arkansas man and...

**JG:** A Razorback, University of Arkansas?

**CJ:** Yes, a Razorback. And he had a buddy over there that was in some kind of business so he gave him...he said here go in the screw business so this guy had him going around selling screws for the people making the aluminum windows. In other words and the poor guy took the company car that he had, he paid for it somehow because he didn't have a car and he didn't have insurance on it. Anyway since I wasn't doing anything I had a BMW at that time and he would drive it and I would go with him and make his calls. Just an overnight...during the daytime only and I would make all these calls with him and finally the guy died from something in his brain. But he was a real fine fellow but after you get fifty in other words, it is hard to find a job.

**JG:** Well Mr. Jircik that is pretty much all that I had and unless you had anything else to add in closing about your experiences with Lufkin Industries.

**CJ:** I haven't covered it all but I'm tired.

**JG:** Well and I know Jesse here wants to take a walk so again I thank you very much.

**CJ:** Okay, and if you have questions or anything you don't understand.

**JG:** We will get in touch with you.

**CJ:** I think I mentioned everybody.

**JG:** Okay, thank you!

**CJ:** Alright.

**END OF INTERVIEW**