OFFSHORE ENERGY CENTER

ORAL HISTORY PROJECT

Interviewee: JOE LEMOINE

Date: October 6, 2001

Place: Houston, Texas

Interviewer: Tyler Priest

Side A

TP: This is an interview with Joe Lemoine for the OEC Hall of Fame Induction, October 6, 2001. The interviewer is Tyler Priest. Let's start by having you give us a little bit of your background, where you are from, and how you got into this whole business.

JL: O.K., I am originally from Lafayette, Louisiana. I went into the service. When I got out in 1953, I came to Houston and went to the University of Houston. I met a couple of guys. One of them was Paul Koomey. That was when I was going to school. After I got out of school, I went to work for Brown & Root for a while, offshore. Then after that, Paul was looking for somebody for the company. I mean, it was really bad. So, he kept putting me off and putting me off and putting me off. Finally, he said, "Come on. You can start out in the shop." So, I started out in the shop building up equipment and everything. It was a very small company. The department at that time, there were only 4-5 people total in the shop and person in the office. Paul and another guy half-time.

So anyway, I started out doing that.

TP: What did you do at Brown & Root?

JL: At Brown & Root, I was an offshore electrician, or whatever. I was a subcontractor. I was working with Brown & Root. I forget how it worked out with Brown & Root but I ended up on an offshore rig. But I didn't work there that long. Maybe six months at the most.

I went to work for Stewart and Stevenson and worked there. I worked in the shop in the service department. In the shop we had four guys and myself. And we were doing everything. So, if one of the pieces of equipment malfunctioned or broke down or something, they told me I had to go, so I went. I started doing that - working in the shop and doing service work. Then, as the equipment evolved or developed, we got a part-time engineer.

TP: These are on blowout preventer controls?

JL: Yes, all are on BOP controls. And we had a part-time engineer who was Harry Burgess. He was working for another company but we were using him.

Anyway, I got involved in engineering. This was all surface BOP controls. Then it started with subsea BOP controls. And so, we got more into designing and testing

and so forth. I became heavily involved in that. We used to have Burgess from an engineering standpoint. He was an excellent mechanical engineer. We had no rig experience. Zero with rig experience. So, between he and I, we worked real good.

We developed a subsea BOP control system. It evolved over a period of time from just a plain system with hoses and valves, with electric and multiplex. so, I mean, it just evolved. Fortunately, I was involved in it because we knew the customers very well and we did have the best system, and it looked like we were first in everything except Herschel Payne who developed the first BOP control system in conjunction with Texaco. We came up with the second one, Hydril came up with the third one, and Cameron, the fourth one. It was over a period of five years, I guess.

TP: The first thing you developed, was that with Bluewater 1?

JL: Bluewater 1, right.

TP: The 3000 psi?

JL: Yes, the 3000 psi system. Bluewater 1 was the first subsea control system but it was a nonreceivable type.

It just had hoses running down there. That is where we put that control system with the nuclear generator and the acoustics and so forth on the Martin & Marietta in conjunction with them. And so, we got that on there.

TP: This is the nuclear power thing?

JL: Yes. We were about 20 years ahead of time. Today is when you need it. But you can't put nuclear generators on the ocean floor. It is kind of, not a taboo thing but everybody is so scared of it. And it is nothing. It is nothing but a . . . the nuclear fuel burns at a temp for 20 years. So, if you added 20 years . . . let's say, if you have a five watt generator. If you buy a five watt generator, it will be producing more than five watts when you get it. At the end of 20 years, it will be producing five watts from this. And then it goes from heat to thermal couple, changing heat to electricity and we were charging batteries, so the batteries were operating the system. So, we did that and we did the wellhead control system with Sinclair. And we just had a great time. It was as simple as that.

After that, we developed the electrohydraulic system where it was just electricity operating a valve on the floor. And then a multiplex system where, instead of

having a whole bunch of wires going down there, let's say, 50-60 wires and hydraulic hose, where two, maybe three wires, and a hydraulic hose going down. It cut the cable way down, in diameter, cost, everything. And handling was easier and so forth.

Finally, we got that pretty well perfected out and Sedco used it, Global Marine used it. The French. I can't think of the . . .

TP: Total?

JL: Yes, Total used it. And the Italians. Saipan.

TP: Paul said you might have some stories about Mr. Fort with Total.

JL: Oh, man! He was a super guy. He came up through the ranks, I guess. I had my quotation there and I didn't have a total because of options. So, he checked off all the options he wanted and he got his adding machine which was mechanical and added it up wrong. They used to do it all the time. They changed the numbers on the adding machine because he couldn't do it without looking. He would add anything and he couldn't believe the price! But on money . . . he had an adding machine on the rig

. . . Italian drill pipe . . . sometimes it would be 12,000 feet. And he'd tally the pipe, and it would come over 17,000-20,000 feet of pipe. There was no way to get it in the hull, you know, but he couldn't figure out why he came up that high! But Gilbert, he was just a super-nice guy. I worked with him for about 3-5 years, something like that. Then he finally died. But he was a good guy. He was kind of like the French men you see in the movies. He had a mustache, a lot of hair, always smoking cigarettes. He used to stink like hell, you know? Strong. He was a super-nice guy. He looked like a French man you see in the movies, you know?

TP: Yes, like Claude Rains in Casablanca?

JL: Yes! We became good friends, let's put it that way. When he bought that system, the price was one of the big factors. So, we had some underwater make and break electrical connectors which were kind of like . . I don't know how you would describe them, but they were really economical. And Vector Cable here in Houston had a real good stainless steel connector with an 0-ring seal where you could make it and underwater, break it under water and you had no problem. But it cost about $300 a piece. Some of them cost about $15. Cheapes! So, one day, I called up our representative in Paris. I said,

"Get Mr. Fort and get him for lunch at the airport tomorrow. I am going to catch a flight to Paris, we will have lunch and I am going to try to sell him these connectors." It wasn't so much to increase the sale but the reliability of the system! So, I got on a plane, I flew to Paris, I was trying to sell him this system. He said, "Well, how much more, Joe?" I told him. He said, "That's too much." So, I said, God damn! So, I got back on the plane, flew to Houston. I just went to Paris, had lunch and came back.

They were on the system for 3-5 years, that I am aware of, that I can recall, and never had a problem with those connectors. It surprised the heck out of me, you know, because I thought it surely would fail. Because when you'd get them on the surface, they were fairly pliable but when you put them down below in 32-33 degrees of water, they'd become stiff, you know? And the principal thing was you had the metal stem,that rubber deal went over it, squeezed down and squeezed the water out. So I figured if it got hard, it wouldn't do it. It would short out. But it didn't. It worked fine.

TP: I don't want to interrupt your flow here. Are there other memorable projects and individuals that you worked with on these control systems?

JL: Well, did Paul go over the 445 B.O.P. control system with you?

TP: The Sedco system? Yes, a little bit, but give me your story.

JL: Duke Zinkham was the project engineer on the thing. Duke was the nicest guy you'd ever want to meet. And he was very, very intelligent. He knew a lot about electronics, metallurgy. You name it, he knew it. He was just intelligent overall in everything. He didn't specialize in electrical or mechanical or something like that. I mean, he was excellent. I don't think he had a college education. I mean, he was really smart. And not that you'd know it. He didn't show it.

Anyway, on the 445 when we were going to The Hague in Holland to see Shell on this thing because Shell was going to use the rig, or own part of it or something. So, we had to get their approval. So, Duke and I, and two or three other guys flew to Amsterdam, and of course, it was an overnight flight. Duke had a big volume, a big capacity full of whiskey. So, I stayed with them all night. We got to drinking. When we got to that airport in Amsterdam, man, we were all plastered! And it was winter time, it was 7:30 in the morning, you know, and it

wasn't sunlight yet. It was foggy. We got off the plane. We finally went down to the big baggage conveyor belts. And Duke had on a big overcoat, it looked like a wool top coat but a heavy coat. And we were standing there. And Duke fell on the conveyor belt! And I tried to get him off. I said, "Duke!" He couldn't get off, so he went way down there outside and came back in.

TP: This is the luggage conveyor belt?

JL: Yes, he went outside on the conveyor belt. But he went outside. Do you know where they put the . he came back in the other side. So, I had to go push the button so I could get him off. I couldn't get him off by myself. Even after it stopped, I had to get some help! So anyway, we got him off. Then, we went to the hotel; showered, shaved, changed clothes, and went over to see Shell . . .

TP: Duke was at Sedco, is that right?

JL: Yes, he was the top guy. Even Shell thought highly of him because of his capabilities, his knowledge was good. But anyway, we were going to do the final deal with Shell and to get Shell's blessing on this. So, we had a big meeting with the Shell engineers. The head Shell guy was

an Englishman by the name of Dennis Skinner. And he was very proper, very straight and everything else. And so, Duke and I went in there . . . I had a hangover. Duke, you could not tell he had a drink, you know, but boy, I could feel mine. So, we went in there, went over all the equipment technical, and went over the cost of it, the commercial end of it. And so Dennis wanted to cut the price. I forget how much it was. It was quite a few thousand dollars. I said, "Well Dennis, we can't do that. Look, that cost this, cost that, and everything else." He said, "I won't pay any more than this." I reached in my pocket and said, "Dennis, this is the shop key. I'll sell it to you if you'll just take the key. You've got the whole place. I can't sell it that cheap. Just take it!" And he looked at me and laughed. He said, "O.K., I'll take your price." He loosened up. But he had wanted to cut about one-quarter of a million dollars, and we couldn't.

Anyway, with the Englishman, it was different. He did loosen up!

TP: So, that was one trip that was worthwhile for you?

JL: Oh, yes. It was a nice trip. And it was the prestige of having the first order, too. But if we wouldn't have

gotten that, we would have really been in trouble. We didn't have the thing designed yet. So, it had a solenoid valve you had to put on the subsea portion of it and we hadn't designed it. It had to be a very low power consumer because when you design wires, you have to start on top with about 400-500 volts to push all the voltage down the wire, so when you got to the bottom, you had about 50-60 volts of solenoid you had to operate at low voltage.

So, when we got back, we started designing that valve. We did it . . . we had to design it . . . it had to work, plus 250 degrees F minus 25 F, so that different tension and expansion in the metal and so forth so the thing would work. So, we couldn't get it to go the whole range. We would bake it and we'd test it and when it was hot, we'd put it in a chill box. We'd do the whole thing. And we fought that thing day and night. Duke, he would never sleep. And he would never eat. I never saw a man like that. He would work all day and all night, and not go get a sandwich. I'd say, "Duke, do you want a sandwich?" "No.[11] And he would work. Just coffee. He would live on coffee. And so finally, one morning, I came over . . . Duke had been there all night working a problem, and he said, "What do you think, Joe?" I said, "I think I know what the problem is." He said, "What?"

I said, "When I was driving to work this morning, I was thinking about that damned 445. Did you ever add up 4, 4 and 5? That is 13. That is God damn rig 13. This will never work!" And he busted out laughing. Anyway, we finally got that fixed but we dwelled on that for quite a while!

Curtis Crooke, he was one of the guys that worked on this Glomar drill ship. He was instrumental in buying one of the first control systems for Offshore Drilling. And after the Bluewater, it was the CUSS 1 or the CUSS 2. But everything after that was, damn, you don't look that bad! Grey hair. White hair.

TP: Thirty years ago, you saw him. That would have been in the early 1960s.

JL: Yes. I know 912 North Grant Street was the address of Global Marine at that time. I will never forget it!

TP: That is a good memory. Some of the other companies. . . Zapata. Do you remember dealing with Zapata?

JL: Not too much. Larry Lavassar did. He did most of the dealings with Zapata. I didn't do that much with them. There were two salesmen, Lavassar and Murphy. They both

knew Zapata real well. So, I really didn't know them that well. I wasn't involved that much with Zapata. Maybe on the technical end of it but not in the sales end of it. They bought a part in the evolutionary end with a Sidewinder rig or the Endeavor, one of the two. But they were good customers. I didn't know them that well though.

TP: And you were largely in sales after a while?

JL: Yes, yes. For a while, I had sales engineering. I never was 100% in engineering. I never was 100% anything. Just everything! To tell you the truth, I never was just in sales and I never was just in engineering.

TP: But you'd have to be an engineer, really, to be in sales.

JL: Yes, I understood the questions and so forth. That was no problem. But no, I was not in engineering 100% and I was not 100% in sales. In fact, all the salesmen had to know the equipment pretty well because he'd sell and I'd sell different subsea systems. I could look at a system and tell who sold it because we didn't have a standard. And so, whatever that salesman kind of thought it was, that is what he sold the customer. So I could look at the control system right around the ship and tell you who

sold it by the type of equipment it was. That's how flexible we were and everything if that is a plus. We had to design everything from zero every time.

Instead of having a standard where we would just have a standard and one set of drawings and just add and subtract for them, we had to have a complete set of drawings for every time we sold equipment.

TP: Because the blowout preventers were all different?

JL: No. You could do it in different ways. There are different ways the system would look, different ways they would operate. They would all do the same thing but in a different manner. Each control system would be different based on what that salesman thought was the way to do it. We didn't have an engineering standard, so to speak. You just had to open and close the B.O.P. and that was all. So, you could tell who sold the system by looking at the equipment.

TP: Do you mean individually, you know, a certain individual or a certain company?

JL: You could tell who sold it by how the equipment looked.

TP: I thought you were talking about different companies. So, you could say, that's Joe's over here?

JL: Yes, this is Joe's and this is Henry's or whatever. We had an engineer, he retired from Shell . . . he left Shell. He was our chief engineer. He would get so mad when we would sell something not standard and he was right. Now, I thought he was full of crap but it wasn't standard. And the time was close for delivery and everything, and it was designed from scratch . . . he would get so mad at us because we wouldn't sell something standard.

TP: And why didn't you sell things standard?

JL: I don't know why. There was no reason. It should have been that way, looking at it now. It should have been that way but it wasn't.

TP: I interviewed him last year.

JL: Oh, you did? Well, you know how he's very serious. Anyway, one time, we were going to eat lunch and he sat in the car . . . it was the year when, if you didn't buckle up your seatbelt on the passenger side, you couldn't get the car to start.

TP: I remember that.

JL: So anyway, he got in the car. I said, "Dee, buckle your seatbelt. I can't start the car." He said, "Well, why is that?" I said, "Because that is the way they make them!" So anyway, he bucked up his seatbelt. I said, "Now, I don't want you to get mad at me. I've got a Dutch crash helmet in the trunk." He said, "What is that?" I said, "It's got the padding on the outside and the hard part on the inside so you don't damage the car if we have an accident" . . . [laughter] We used to give him hell!

TP: That's a good story.

JL: That's crazy!

TP: Did you work on Discover Seven Seas?

JL: Yes.

TP: That was quite a rig.

JL: Yes, it was. The hydraulic portion, the electrical portion was no problem. This was a multiplex system. They were really concerned and went and had experts on

that, and we did, too. So, I didn't get involved in that much of it. The overall system, yes. But as far as details, I didn't. I got involved with most of the subsea systems and with the Discover Seven Seas, too, but not as much as the others because we had so many people on board. We had about 600 employees. At the beginning when we started this thing, we had about 20. So, we grew quite rapidly and I couldn't cover all the bases.

TP: Do you have any other stories, now that I've got you on a roll?

JL: Did Paul mention to you Larry Lavassar? He has passed away now.

TP: I don't recall . . .

JL: Larry was the be all and the end all. He was about 6 feet 4 inches, was always dressed kind of western.

TP: With Stewart and Stevenson?

JL: Yes, with Stewart and Stevenson. He was service manager, became plant manager. Yes, he was a salesman. Nobody ever did the same thing... he ran the plant but he was making sales calls and service calls. He went to North

Africa. He was out of the country. Larry was wild. God, he was wild. And so, I didn't know where he was. I telexed every embassy, U.S. embassy, in North Africa to see if he had entered the country. I couldn't find him. About every six weeks, he would send you a telex from a different country, wanting a couple thousand dollars of expense money! Where are you going to spend money in the middle of the desert? He could manage it.

So anyway, we finally found him at the World Petroleum Congress in Germany somewhere. He took this girl from Hassad Massood, which is a small oil camp in Algiers. It is a big oil camp now but it was a small oil camp then. Not a town. And she worked for an International Drilling Company. He picked her up. He had rented a VW in Algiers and drove from Hassad Massood to Algiers. Nobody does that but an Arab, you know! He got there, boarded a plane over to Germany. He had been gone about three months. His wife didn't know where he was. Oh, he was wild.

Anyway, he finally showed up in Germany. He stayed about another week there then came back. On that trip, he was supposed to fly from one town to another. And he got to drinking too much that night, so the next morning he couldn't make the plane. He and a guy from the Offshore

Company were supposed to fly to wherever it was. The offshore company guy made the plane flight but Larry didn't. The plane crashed into the side of a mountain. Of course, everybody got killed! But Larry lucked out again!

Larry went to Harvard Business School. And you know, you've got a picture of Larry . . . he always wore cowboy boots. He bought a whole bunch of cattle. He knew nothing about cattle. And he ran up so much of a feed bill at the feed store that they wouldn't give him more credit, so he couldn't buy more feed. The cattle were getting skinny. So, a rancher who knew something about cattle said, "Larry, you ought to feed those cows. They are getting skinny." He said, "That's the way I like them!"

He was up there with John Huff who is now with Ocean Industries, the president of Ocean Industries. He went up there and they were having a big party. Larry said, "Called me up to send him 300-400 pounds of crawfish." They were going to have a crawfish boil in Boston. I said, "Larry, do you really want to do that?" He said, "Yes." So, I sent him up about five or six sacks, those rice onion sacks, full of crawfish. They got up to the airport in Boston to the freight department . . . two

sacks had busted. There were crawfish all over the freight department at the airport. They got some boxes and they gathered up all the crawfish. The next day, they had a big crawfish boil at Harvard!

TP: So, he went to Harvard Business School from Stewart and Stevenson?

JL: Yes, while he was at Stewart and Stevenson. They had to do something to try to calm him down!

TP: Was he from Louisiana?

JL: No, he was from Jasper, Texas. Anyway, he sold the Zapata subsea system. He went to Australia . . . he didn't have to be there. He went there for about two months. He had so many friends there. The beer was about a dime. Mixed drinks were fifteen cents in that little town (Sale). So, he would go offshore and when he was back in, the rig would radio the radio station who would put on the air that Larry Lavassar was coming back so the bars were all full that night, because Larry was buying all the drinks!

TP: After he came back from Harvard Business School?

JL: Yes.

TP: He stayed with Stewart and Stevenson for a long time?

JL: Yes, he stayed with them for a long time. Then when they sold the company, when Stewart and Stevenson sold the company to . . . who did they sell it to?

TP: National Lead (N.L.).

JL: Yes, he sold it to National Lead, then he left, went in business for himself in Casper, Wyoming. He got in an automobile accident one morning about ten o'clock, eleven o'clock, and got killed. You should have seen that funeral. I swear to God, I really thought he had more single women than married women . . . he had been with everybody at least once if not twice . . . you had more women than you could shake a stick at. They had a closed coffin. I figured it was a joke, that when everybody was there, he would open up the coffin and say, "Here I am!" They had so many flowers, they couldn't get any more flowers in the funeral home. The funeral was in Jasper. They started sending flowers to the hospitals and old age homes. I never saw anything like it. I mean, he knew everybody.

TP: Are there any Brown & Root folks you remember?

JL: No, nothing spectacular. I spent damned near all my life with Koomey or Stewart and Stevenson.

TP: And the drilling companies were your main clients.

JL: I never was with the drilling companies.

TP: But they were your main customers?

JL: Oh, yes. They were our customers. We worked with oil companies but very few. But mostly the drilling contractors. Did Koomey tell you about his grease experience?

TP: Yes, I think I remember the story he was talking about.

JL: That was before they had floating drilling platforms in the Gulf and platform rigs. And they had jackups, too, but the offshore company had some platform rigs. And what happened was when they would break the lines, the oil would go into the water, in five minutes, it wasn't that bad but it would get on you a little bit. So, Paul came up with the idea, well hell, we'll just operate those on grease, because these pumps that we had used in

our accumulator were grease pumps. That is what they were. Pumped grease.

So, it would pump grease . . . and when you'd break the lines on the BOPs, nothing would fall out and those BOPs would be stuffed packed with grease. Man, if they put them in a yard somewhere, they would be perfect. They'd be in good shape. So, Paul said we'd try it. So, he got a 55 gallon drum of grease and an 80 gallon accumulator system. An accumulator system is like a 10 gallon bottle, an eight (10} gallon bottle in this case, that had a bag or bladder inside and they would fill this bladder up with nitrogen, 1000 psi nitrogen, then pump the oil and fluid into the accumulator, that would compress the nitrogen up to 3000 psi. So, the last drop of fluid would come out at 1000 psi on it.

So anyway, we got out there and we put a pump in a 55 gallon drum of grease and we pumped it into this 80 gallon accumulator to 3000 psi. It had a piece of hose, three-wire braid hose, and it had a quick opening valve on the accumulator system sitting there. After that, they made up the hose on the accumulator system and inserted the hose in the drum. They put it in the drum and said, O.K., the hose came out! He couldn't let it go. He couldn't let go of the God damned hose! It was

spraying in the parking lot on about 60 cars. It was spraying grease all over 60 cars! He couldn't get off of that hose for nothing in the world. All I could do was laugh. I wasn't about to get near the hose and have that accumulator work me to death!

TP: He told me about the system but he didn't tell me that story!

JL: It was funny.

TP: Was your car one of the ones that was greased?

JL: No. I don't know where my car was. All the employees cars were parked . . . oh man, what a mess. There were six of us including Paul . . . with rags cleaning all of those cars off! It took us about 2-3 days to do that. What a mess!

Paul used to make all kinds of faux pauxs like that. He got so gun shy, like that grease deal . . . one time at a Lafayette Oil show, we just had a 3000 psi system and Oil Field Renters bought the first 3000 psi system. We had it there. It had been out about 6-8 months. So, at the show, Paul met another contractor. Paul said, "Let me take you over to Oil Field Rental and we will look at

this unit." Well, we had the unit sitting there and it had all the valves, like six valves, sitting there. And coming out of the valve, there was a pipe going down almost to the ground. So we called this unit the white elephant because it was all painted white. Oil field rental equipment was always painted white. So anyway, he went out there and that accumulator charged 3000 psi. I saw it, but I didn't want to say anything because Paul was going through his motions. And he was explaining the accumulator system to them, charge at 3000 psi. And he said, "When you want to close the B.O.P., just hit that valve." So, he hit that valve and . . .

TP: It soaked Paul?

JL: Paul! He hit the valve. It got the contractor. It got him, too, but it got the contractor and his friend there. And got them both full of oil. So, he had to buy them each a suit, hats, shoes, everything! He was funny!

TP: Did they still buy the system?

JL: Yes, they did. There was a time which was unusual and maybe this is bragging but at one time, we had 90% of the world market in BOP controls. our catalog had the model of the controls and the prices. The price was right

there in the catalog. There was no cutting of the price or lowering a price. It was right there. Our competitors. . . we'd drive them crazy because we'd outsell them 9 to 1. And they couldn't figure out. . .they'd be low in price but we'd get the business. We worked so hard to get that business. It was something else.

TP: Well, those are good stories. I am sure that is just the tip of the iceberg.

JL: Oh, yes. There are plenty!

TP: Well, I don't want to hold you up too much . . .

JL: I've got to zip home, get dressed, get in line and get back over here.

THE END

Offshore Energy Center-Oral History Project

Interview of Joe Lemoine

October 6, 2001