## UNITED STATES OF AMERICA

### NATIONAL TRANSPORTATION SAFETY BOARD

Interview of: KEN BLACKMON

Alagasco Headquarters Birmingham, Alabama

Tuesday, July 15, 2014

The above-captioned matter convened, pursuant to notice.

BEFORE: MATTHEW NICHOLSON Investigator-in-Charge

## APPEARANCES:

MATTHEW NICHOLSON, Investigator-in-Charge National Transportation Safety Board Washington, D.C.

RAVI CHHATRE, Accident Investigator Pipeline Division National Transportation Safety Board Washington, D.C.

BOB GARDNER, Director, Quality Assurance and Compliance Alabama Gas Corporation (Alagasco) (Party Representative)

KEITH BLACKWOOD, Pipeline Safety Investigator Alabama Public Service Commission

WALLACE JONES, Administrator, Gas Pipeline Safety Alabama Public Service Commission.

MICHAEL BELL, Esq. (Representative on behalf of Mr. Blackmon)

I N D E X

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# LEGEND:

(ph.) = Phonetic Spelling

1	INTERVIEW
2	MR. NICHOLSON: Good morning. Today is Tuesday, July
3	15, 2014. My name is Matthew Nicholson, and I am an investigator
4	with the National Transportation Safety Board in Washington, D.C.
5	We are at the Alagasco headquarters in Birmingham, Alabama. This
6	interview is being conducted as part of an investigation into the
7	natural gas distribution release and ignition that occurred in
8	Gate City, Birmingham, Alabama on December 17th, 2013. This is
9	Case Number DCA-14-MP-001.
10	This interview is being recorded and may be transcribed
11	at a later date. A copy of the transcript will be provided to the
12	interviewee for a review prior to being entered into the public
13	docket. Mr. Blackmon is it Blackman, or?
14	MR. BLACKMON: It's Blackmon.
15	MR. NICHOLSON: Mr. Blackmon. You are permitted to have
16	one other person present during the interviews. So the person of
17	your choice: supervisor, friend, family member, or nobody at all.
18	Please state for the record who you have selected.
19	MR. BLACKMON: Mike Bell.
20	MR. NICHOLSON: Okay. Thank you. Now I will go around
21	the room and have each person introduce themselves. Name with
22	spelling, title, and the agency or organization you are
23	representing. I will start and we'll go to my left.
24	Matthew Nicholson, M-a-t-t-h-e-w, N-i-c-h-o-l-s-o-n.
25	I'm an investigator with the NTSB.

1 MR. CHHATRE: Ravi Chhatre, a pipeline accident 2 investigator, NTSB. That's C-h-h-a-t-r-e; first name, Ravi, R-a-3 v-i. MR. BELL: Mike Bell, B-e-l-l, attorney representative 4 5 for Ken Blackmon. 6 MR. BLACKMON: Ken Blackmon, Director of System 7 Operations for Alagasco, B-l-a-c-k-m-o-n. 8 MR. BLACKWOOD: Keith Blackwood, K-e-i-t-h, B-l-a-c-k-w-9 o-o-d, Pipeline Safety Investigator with Alabama Public Service 10 Commission. 11 MR. JONES: Wallace Jones, W-a-l-l-a-c-e, J-o-n-e-s, 12 Administrator of Gas Pipeline Safety, Alabama Public Service Commission. 13 14 MR. GARDNER: Bob Gardner, G-a-r-d-n-e-r, Director of 15 Quality Assurance and Compliance for Alagasco and party 16 representative for Alagasco. 17 MR. NICHOLSON: Okay, thanks. INTERVIEW OF KEN BLACKMON 18

19 BY MR. NICHOLSON:

Q. All right, Ken, just to start with, I think it's
worthwhile to get some background from you. Can you tell us a
little bit when you started with Alagasco, positions you've held
within Alagasco, and bring us up to your current position?
A. Sure, I'd be glad to. I joined the company in November
of 1984. Started as a distribution engineer, a staff engineer, if

1 you will, here in the general engineering department. Worked in that capacity for 4 years, at which time I moved to the Montgomery 2 3 Division as the supervisor of distribution and engineering. Held 4 that position until 1993, where I moved to the Gadsden Division as a superintendent of Gadsden. Moved again in February of 2001 back 5 6 to the Birmingham Division, involved, not in our corporate office, 7 but in our Birmingham Division, and have held really multiple positions within the Birmingham Division over the last 12 to 13 8 9 years, since 2001.

10 I started as the manager of distribution and 11 engineering. That role was expanded after about 4 years to be the manager of distribution services, where I took on several 12 additional responsibilities in addition to what I already had in 13 14 That role changed again in 2009 to the general Birmingham. 15 operations manager of the Birmingham Division, which I stayed in 16 that role until the company reorganization in September of 2011, 17 when I moved back to a corporate role as the director of system 18 operations.

19 Q. Which is your current title?

20 A. Yes, sir.

Q. Okay. So can you talk a little bit -- when you were manager of distribution and engineering -- well, first off, when you say you were with the -- in 2001 you came back to Birmingham Division. As I understand it, there's three Birmingham Divisions. There's a WOC, a SOC, and a Metro? Were you over all three of

1 those?

2

A. There's one division.

3 Q. Okay.

A. It's the Birmingham Division. It had offices at the Sauk and the Walk and Metro. And there was some management located in each of those three buildings that handled certain responsibilities, namely, construction personnel, service personnel that responded to orders in that geographic territory.

9 My position in the Birmingham division was always a 10 centralized position where I represented all of the service 11 territory of Birmingham in areas of engineering, distribution, 12 cast iron replacement, new construction; over time, the garage, 13 the storeroom, the meter shop, budgets. So I had responsibility 14 for things that included the entire Birmingham Division. But, 15 yes, geographically we had some sections, Sock, Walk, and Metro, 16 where there was some division of responsibility, had some 17 responsibility jobs. If that makes sense.

Q. Okay. Yeah, that does help. Thank you. I don't think IN I knew that. So, manager of distribution and engineering, did that include corrosion and leak surveys? Did you have people under you doing those type of things?

A. Yes, for part of the time. Some of those responsibilities changed, but for part of the time I was the manager of distribution and engineering the -- it really was a divided responsibility. You may have heard that before, but there

1 was a corporate role in leak surveying, contract leak surveying 2 and executing of the contracts, selecting of the vendors, 3 overseeing, and then there was a local tactical responsibility at 4 each divisional location to make sure it happened. Worked with the local people that came in when they turned in information, 5 6 like turned in leakage information, they would turn it into local 7 personnel so -- and then there was also an aspect where we did internal leak surveys, and I did have responsibility for the 8 9 company employees in Birmingham that did those internal leak 10 surveys.

Q. Okay. So, when you were the manager of distribution and engineering, there was a corporate level management of leak surveys. They handled contracts and assigning those contracts to third parties?

15 A. Selecting vendors.

16 Q. Okay.

A. Who we used.

Q. But when it came to actually doing the survey and recording the results, that information eventually found its way to you at the division level?

A. Yeah, I wouldn't say necessarily the information from
the -- I didn't have responsibility for those contract leak
surveyors.

24 Q. Oh, okay.

25 A. When they would bring information back in, it was

usually brought to the construction supervisors or the service
 supervisors whether it was an above-ground leak, a below-ground
 leak.

4 Q. Okay.

A. Dispatch was involved in that. I didn't have responsibility, at least at that time, for dispatch. But, again, the employees that worked for me and were under my direction were the employees that did the internal leak surveys, abnormal movement surveys, other kinds of surveys that are required under our operating plan that we do on an annual or a quarterly, or whatever, basis.

12 Q. What's an internal -- what are you calling an internal 13 leak survey?

A. I just mean it's done by company, Alagasco personnelrather than a contract personnel.

16 Q. When would you have Alagasco do a leak survey versus a 17 contractor?

A. It's per our requirements written in our operations procedures manual when and what surveys, whether they be leak surveys or other types of surveys, that, again, are part of our operating plan that are performed.

Q. Okay. That would include distribution mains? This internal crew would do distribution mains, as well as service lines?

A. Could be both.

1 Q. Okay.

2 MR. GARDNER: Are you asking what's the distinction --3 MR. NICHOLSON: Yes.

MR. GARDNER: -- between the contract leak surveyors and 4 5 the company leak surveyors?

6 MR. NICHOLSON: Yes, I think I am. Yeah.

7 MR. BLACKMON: Again, it's the type of survey, be it a leak survey or a different type survey. Not all of them were 8 9 leakage.

BY MR. NICHOLSON: 10

11 What other survey would you be doing? I don't Q. understand. 12

13 Α. I'm trying to remember. I mean, there are patrols --14

Q. Oh, okay.

15 Α. -- right-of-way patrols, pipeline marker surveys.

16 Oh, I see. Okay. Q.

17 Different type things. Α.

18 I thought we were only talking leak. Okay. Ο.

19 But our internal personnel would do a certain amount of Α. leak surveying, business districts or critical areas, they would 20 21 do, in addition to what was being done by a contract leak 22 surveyor.

23 Q. Okay. And when a leak was found back at that time, you 24 said it went to dispatch, and what happened then? Someone was 25 sent out to dig -- say it's a grade 1 leak. Someone went out to

1 dig that leak and repair it?

2 A. Talking about back in the time when I was --

3 Q. Back in the time, yes.

4 A. In the early 2000s --

5 Q. 2000s.

6 A. -- mid 2000s when I was over at distribution 7 engineering?

8 Q. Yeah.

9 A. Again, it wasn't really my area.

10 Q. Okay.

A. But I know the -- you know, the process is inform the right person in the right time and manner. If it's a grade 1 leak, there's immediate contact through dispatch, through our construction supervision, to get employees responding immediately. If it's a grade 2 leak, you know, those would be turned in usually at the end of the surveyor's day as a course of normal information transference.

18 Q. But that wasn't --

19 A. Exactly who they went to I couldn't tell you.

- 20 Q. It wasn't you?
- 21 A. It wasn't me.

22 Q. But you mentioned there were corrosion technicians that 23 also worked in division. Did they report to you?

A. Corrosion, and I couldn't tell you exactly, there was a season where corrosion technicians around the state reported to a

1 centralized group here out of our corporate office.

2 Q. Okay.

A. And then there was a season of our operating history of the last, at least 20 years, where the local corrosion technicians reported to local superintendents or others in divisional operations.

7 Q. Okay.

8 A. I know I had a corrosion technician reporting directly 9 to me in Gadsden, when I was superintendent of Gadsden.

10 Q. That is in '93?

11 A. That would have been '93 to 2001.

12 Q. Okay.

A. I did have, reporting indirectly to me, the Birmingham corrosion technicians for part of that time. And again, it was somewhat -- it changed.

16 Q. Sure. No, I understand.

- 17 A. It changed from centralized to decentralized a couple of 18 times.
- 19 Q. Okay. Back and forth?

20 A. Yes.

Q. So when you've had a corrosion technician on staff at Gadsden, would they be involved in looking at any of these cast iron pipes when they were exposed?

24 A. Looking at cast iron pipes?

25 Q. Yeah. Would they look at -- examine any of the leaks

1 that were found?

3

2 A. They might be called to one.

Q. What was their main role, I guess?

4 Α. It was really the compliance, the installation, the maintenance for our CP system, our cathodic protection system, on 5 6 our steel pipe system. Really, they were responsible for the 7 installation of the rectifiers, the maintenance of the rectifiers, if they were to go out, the regular readings that are required 8 9 monthly, annually, all the test point readings. You know, they 10 were involved in, at least from my experience, they were involved 11 when project work was done, decisions were made about steel 12 pipelines being put in or maybe a section of steel pipe being 13 taken out, to where an isolation point might be created 14 inadvertently. They would look at project plans and make sure 15 that we had continuity of our CP system and that that CP system 16 was accurate as measured and as controlled by the rectified system 17 that was out there, or the recommendation for anodes if it was a 18 non-rectified system. So they had input and involvement in those types of activities, from my memory. 19

Q. Okay. So we've seen -- what's been given to us is a consultant study ZEI had done in 1985. Are you familiar with that?

23 A. Yes, sir. I am.

Q. Okay. And it talks about cast iron replacement. Can you talk a little bit about that study and maybe some of the

1 findings or what came out of that study? I know it's about the 2 time that you started.

3 A. Yes, sir, I can.

4 Q. Give us some history.

I quess, starting in November of '84, there was, you 5 Α. 6 know, probably some -- you know, it was about the time ZEI was 7 being talked to, and I guess information being exchanged, that led to a project in the 1985 time frame. Again, I was working in our 8 9 general office as a staff engineer so I did have, you know, really 10 right in coming in the door, had responsibilities associated with 11 that project, and really the execution of the project. Not the 12 decision to do the project, but once a decision was made.

13 ZEI came down. They told us what they needed, what they 14 They brought people in. We went about the needed us to do. 15 company explaining that to the field personnel that would actually 16 be digging up mains in various locations, taking samples, making 17 notes, describing what they found when they exposed the cast iron. 18 So I was involved in that process of working with divisional 19 personnel that were gathering the data that would then be sent to That was my earliest workings with it was really the 20 ZEI. 21 execution of the project, if you will.

Q. Sure. And so do you know how they selected the sites they did for digging or excavation?

24 A. I don't.

25 Q. Okay.

A. I know it was a representative sampling throughout our entire service territory. It was driven by where we had cast iron, but they were selecting them, you know, based to get a representative sample.

5 Q. What kind of things were they collect -- what were they 6 looking for when they went out?

7 A. They were certainly looking at soil types.

8 Q. Okay.

9 Α. So it was important to, again, spread the sampling out 10 over the entire service territory, not just all in a downtown area 11 and exclude the more suburban areas. Beyond that, I'm not sure. 12 My guess is they probably were, you know, wanting, again, a sampling of various pipe sizes. So those locations would have 13 14 been determined based upon, you know, looking at our service 15 territory, some information about the soil types that were known 16 in various areas, and then pipe sizes as well. If you had an 17 option to do digs on all 2-inch versus all 6-inch, I think their 18 recommendation, or what we eventually wound up doing, was getting 19 a sampling of all of those.

20

Q. Getting sampling of all sizes?

A. Well, just a variation. We did not do sampling just on a particular pipe size, but we would use our -- you know, direct our employees to go to different locations that represented the full gamut of what our pipe sizes were and the soil types in the areas that we worked in, and certainly across all of our service

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1 territory.

2 Q. Did you have a role in reviewing the results from that 3 study?

I think, you know, I had a role in ensuring they were 4 Α. completed and that they were completed accurately. If there were 5 6 questions or issues, you know, I would be in communication with 7 the local personnel. But I was really more responsible for ensuring they knew what to do and they accomplished it and they 8 9 did it within, you know, a timeline that was expected of us. But 10 as far as reviewing it to make any kind of -- draw any kind of 11 conclusions, no. No, sir.

Q. So, I think in that report they said there's an expected life on the pipe of 104 to 144 years. You didn't have any input as to the assumptions they used? Do you know what assumptions went into those estimates?

A. It would be difficult to sit here today, 30 years later, and really draw conclusions about what assumptions they used. You know, I do know that soil type was very important, as it would have an impact on the corrosivity of the soil.

Q. What was their finding on soil type? Do you recall? A. I think that it was milder than normal, if you will. It wasn't highly corrosive soils as relative to other areas of the company and other companies they had done work for.

24 Q. Okay.

25 A. It was favorable.

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Q. So can you talk, then, a little bit about the outcome from the ZEI study, because I think it prompted -- well, did it prompt a replacement program or just monitoring? Talk a little bit about that.

A. Well, it -- as I remember or think back, the ZEI study was one piece of information that was used by our management at that point in time, close to 30 years ago, that helped us with a strategy of what should we be doing about the whole concept of prepair or replace as it relates specifically to cast iron, which was what they were studying.

11 So, you know, it was definitely an input that was part 12 of the decision making. I think it was an important input because 13 it was an external professional organization that did this kind of 14 analysis for companies throughout the gas industry that brought, 15 you know, to us more than just what we knew internally operating 16 our system. So it was a very important piece of the information 17 that was used to decide what do we do going forward.

18 Q. Why was the study done? What prompted it in 1985? Do 19 you know? Was there an accident, or?

- 20 A. I don't.
- 21 Q. Okay.

A. Again, it was, I think, determined to move that direction before I came here, and if I knew it then --

24 Q. Forgotten.

25 A. I really don't recall if there was a particular event or

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1 reason why we felt that was a time where we needed to go get -- I
2 should have probably asked that question, but coming in the door I
3 did what I, you know, was asked to do, so --

Q. So talk a little bit more then, if you could, we understand that you were involved in pipeline replacement -- or cast iron replacement programs at the division level prior to what its form is now.

8 A. Right.

9 Q. We've talked to people that do it now and we understand 10 the risk ranking, but we want to understand prior to this 11 reorganization how pipeline replacement was done. If you could 12 talk us through that process and what your role was?

A. Okay. Would you like me to go back to my position as a staff engineer following the ZEI study, or my time in Montgomery and Gadsden and Birmingham, or --

16 Q. Let's start chronological. Let's start.

17 A. How much would you like me to do?

18 Q. Let's go back. Let's hear it.

19 A. Okay.

20 Q. Following the ZEI study, what was your role there? I 21 mean, how were you involved?

A. I was working for the manager of general engineering, and we, you know, received the recommendations out of that ZEI study. It prompted us to do some things to help us manage the process better than we were, perhaps. We definitely implemented

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1 some changes.

- 2
- Q. What were those?

A. So as a staff engineer, you know, I was part of the group that would take those recommendations that ZEI made, as well as incorporate what we were already doing and say, you know, here is kind of our blueprint for moving forward.

7 Q. Okay.

And it really centered around, well, a couple of key 8 Α. 9 points. One was we just needed better data. Our systems of 10 record 30 years ago and IT levels and everything are not what they 11 are today, but it put us on a trajectory of, you know, over time, 12 we have to have better improved ways to capture data and then be 13 able to use that data in analytical ways and other ways to make 14 decisions, much like what you heard Jerre talk about earlier 15 today.

And certainly the other aspect, you know, in the absence of those systems and those databases and those technologies that enable us to do those kinds of things differently, we needed to continue to do well what we had been doing, and that was really looking at cast iron at a local basis by making replacement decisions when that repair/replace balance, you know, reached a point where it was time to replace, rather than repair.

23 Q. Okay.

A. So part of that recommendation was, you know, let's have a system where we can visually see maps, leaks posted on maps,

begin to get a better understanding geographically and visually of where these leaks are occurring, and numbers of leaks and repeated leaks, and that be an additional input that we really didn't have in a formal form, if you will, where we had a set of maps where all leaks were being captured graphically on the main.

Q. I see a letter here dated January 11, 1985. This one
7 happens to be going to Montgomery, I think, Mr. Paul Wildes or -8 A. Can hardly see it.

9 Q. Yeah. It says that you do -- this letter is 10 encouraging. It's from Don Wiseman. I don't know who Don is.

11 A. He was the manager at general engineering that I worked 12 for.

13 Q. Oh, okay. That one there.

14 A. Yeah.

Q. So I believe this is kind of what you're eluding to here, where they should mark index maps and areas or mains they consider most immediate in need of replacement, and that they should consider corrosion leaks, material failures, breakages.

19 A. Right.

Q. So was this the kind of thing -- those five criteria there, were they being -- were those things getting put on a map that you were talking about? Or how were they capturing that information?

A. Well, yes. When leaks occurred and the fieldinformation came back from the field, copies of those tickets were

1 being routed to individuals that would plot those leaks 2 graphically on the main at the location where they occurred. And 3 in addition to plotting the leak, there would be, you know, an 4 indication whether it was a break or a leak. The pressures were already denoted on the maps. We show our low pressure maps a 5 6 different line width than we do our medium pressure or our high 7 pressure. And the location, certainly, it was evident on the map where the location was. To the best of my memory, those were the 8 9 kind of things that were being documented on this single map set 10 for each service territory or each division to begin accumulating 11 history in a graphical form.

12 Q. An early GIS kind of system, really.

13 A. But it was just a map.

14 Q. A map.

15 A. Paper maps.

16 Q. Right.

17 A. Yeah.

Q. So how long did this go on for? Did they do this through the 2000s? Did it ever get converted to an electronic format that you know of? Is the information still available?

A. Yeah. Certainly, eventually we acquired a GIS system. We replaced our old -- I can't even remember the acronym now, but our -- what's now our SAP system. But the system that we had before, the leaks would be data entered into and we would keep it -- CISC or something like that, some system. But over time, we

1 replaced technologies, added technologies.

Q. Sure. I understand. But the data resided -- I mean, the data was carried over each time, right? So when the SAP was brought in, the legacy information captured starting back in 1985 would have been carried over. Is that --

6 MR. GARDNER: Well, to be clear the SAP and the GIS 7 system were not concurrent.

8 MR. NICHOLSON: Okay.

9 MR. GARDNER: The GIS system came in after the SAP 10 system, so we were still using paper maps for several years after 11 SAP was introduced.

MR. NICHOLSON: But all of this leak information was still kept electronically in SAP, right? Whether it was corrosion, material failure, that's on a leak report, right?

MR. GARDNER: Right. The leak -- the record -- the company record for leak repair was in SAP, and so the kind of data that Ken has described, we could say was captured in SAP. I can't speak to whether it was plotted on a map.

19 BY MR. NICHOLSON:

Q. But here's -- my confusion is, we've heard other people say, well, we chose -- we went back 10 years to do that risk ranking because SAP started in 2003. But in reality, you had data dating back to mid to late '80s.

A. No, I cannot speak to how much historical data was brought out of the old system and brought into SAP.

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- 1
- Q. Okay.

2 A. It may have been all. It may have been part. It may 3 have been limited. I don't know.

Q. But this information was being captured electronically?
A. Certainly in the year 2003 information going into SAP
was in a form, and has continued to be in a form, that it's
available. Whatever happened in 2003, is in the SAP system today.
MR. GARDNER: Right. So to be clear, the SAP system,
among other things, was implemented for us to manage leaks going

- 10 forward.
- 11 MR. NICHOLSON: Okay.

12 MR. GARDNER: It was a work order management system --

13 MR. NICHOLSON: Oh. Right. Okay.

14 MR. GARDNER: -- financial system, supply chain -15 MR. NICHOLSON: Right.

MR. GARDNER: -- et cetera. So it was not a repository of past data. Unlike the maps that would have been -- say, you take 9,000 maps, you convert that to GIS, you're copying information, it's kind of whatever's on the map. The SAP system was never designed to be a repository of past data. It was a going forward --

22 MR. NICHOLSON: So if you wanted to do a historical 23 analysis, you would have to go to a separate system?

24 MR. BLACKMON: Yes.

25 MR. GARDNER: We would not have -- in other words, we

1 would not have imported --

2 MR. NICHOLSON: Right.

3 MR. GARDNER: -- data into SAP on day one of SAP. It 4 was a --

MR. NICHOLSON: You're right.

6 MR. GARDNER: First leak order in SAP was created 7 sometime after we went live, and there was no past information in 8 there.

9 BY MR. NICHOLSON:

10 Q. Okay.

5

A. Again, I don't know if there was no -- usually when we implement a system to replace a system there's a certain amount of data that gets brought over, but how much, how long -- certainly current orders that were in the old system need to come in.

15 MR. GARDNER: Only the -- only stuff that's current. It 16 wouldn't have been from 2 years ago or 5 years ago potentially.

17 MR. NICHOLSON: Okay. All right. I'm sorry, Ken. Go 18 ahead.

19 MR. BLACKMON: That's all right.

20 BY MR. NICHOLSON:

Q. So you take this information, capture it on maps. How would that -- moving forward how would that help you make decisions about cast iron replacement?

A. Well, I don't see it, but there was a letter under my signature, I believe, to my supervision that kind of laid out a

1 short-term and a long-term strategy. We basically followed that. 2 We plotted the leaks, which began the graphical history where we could identify hot spots, if you will, where leaks were occurring 3 4 repeatedly in an area. And then that information was discussed with local personnel that were responsible for working those 5 6 leaks. Out of the conversation of shared information, that really 7 drove locally what would be recommended to be replaced year by year by year. 8

9 Q. Okay. I'm thinking like a short-term strategy, 10 "District construction personnel will begin making an evaluation 11 of cast iron pipe condition for every main exposed. The mains 12 will be 1 through 5 funding four conditions." Was that --

13 Α. Yeah, that was really a change in process that I think 14 followed the ZEI study, where we dug it up and we made some 15 documentation as to what was the condition of what you encountered 16 when you dug it up. That really wasn't happening -- at least I 17 don't believe that was happening before, or at least it was 18 revised or changed at that point in time to have a way that, you 19 know, employees could have a certain place on the form, that's 20 where they were supposed to mark what they found when they dug it 21 up.

Q. When we say "dug it up", they dug it up for a leak -- as the result of a leak survey, or were you defining areas that they were to dig just to do assessments?

25 A. It was any kind of main leak correction order --

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1 Q. Okay.

2	A which could be a leak. It could be some other kind					
3	of maintenance. Maybe they were doing a relocate or they were					
4	adding an anode, but it was I think it was the intent was					
5	anytime you saw a piece of cast iron that was underground at that					
6	location, you would make a record of what the condition was that					
7	you found it just to preserve that information.					
8	UNIDENTIFIED SPEAKER: This is in the document.					
9	MR. NICHOLSON: Yes. I'm looking at the document. I'm					
10	10 looking at.					
11	UNIDENTIFIED SPEAKER: The main leak correction.					
12	MR. NICHOLSON: Oh, this is the form					
13	MR. GARDNER: That form was modified to include					
14	UNIDENTIFIED SPEAKER: This is the procedure.					
15	MR. GARDNER: that item.					
16	BY MR. NICHOLSON:					
17	Q. Okay. And then they would take the idea was that					
18	form or these forms would be used in conjunction with the leak					
19	maps to make a decision on replacement?					
20	A. The individual forms would be documented on the map set.					
21	Q. Oh, okay.					
22	A. To, again, accumulate the history. And then					
23	periodically those map sets and the information contained on them					
24	would be discussed with representation at each of our seven					
25	divisions separately.					

1

Q. Okay.

2 You know, a discussion: Here's your map set. Α. Here's the information that we have accumulated thus far. Hear from them 3 4 what their experience is. And at the end of that conversation, if you will, each division was responsible for submitting a capital 5 6 budget every year. One of the items that would be included would 7 be cast iron or bare steel for replacement. And have all the other things they needed to do with their capital dollars, but 8 9 that was one of the items. And it would be driven out of the 10 strategy where the two groups, the centralized group here in the 11 general office and the local divisional groups that have the field 12 employees and the supervision and the local responsibility for 13 repairing and replacing mains, you know, they would have the 14 responsibility then to submit in their budget what they wanted to 15 replace. Or if it required immediate submission, you know, 16 couldn't wait until a new budget year, then it was the division's 17 responsibility to recommend we need to do this project now. And 18 both were done. Both the plan to replace in the future and the --19 we need to replace this, you know, right away.

20 So that's really how the initial outcome of the ZEI 21 study was used was to start accumulating data and have this good 22 dialogue between the centralized group that was accumulating the 23 data on behalf of and in support of the local offices who had the 24 local knowledge and experience, and together make decisions to 25 replace the right pipe.

Q. And then it says that I guess in the long term you'd be looking at a 5, 10, 15-year plan. From this information, that was the long-term strategy?

Well, and I would say -- at the time we had our -- kind 4 Α. of our plan for what do we do now. And then looking 15 -- 10, 15 5 6 years down the road, it was, well, here's kind of an idea of where 7 we might go. But our focus is to get this going to begin to accumulate good information, but in time move in the direction 8 9 where we can add technology. We can add procedures or processes 10 that will help us do this better and get away from plotting dots 11 on maps and get to something that's really more useful. And that 12 really is what we have done over the decade since then in 13 replacing technologies that do enable us to take leak data, and 14 good leak data, and couple that with a GIS system that can drive 15 the kind of results that we can now get when we're looking at leak 16 rates and leak densities and things of that nature.

17 Q. So how much pipe got replaced between 1985 and 2000? Do 18 you know?

19 MR. BLACKMON: Do you have that? I don't.

20 MR. GARDNER: Let's see. I don't think we went back 21 that far on that letter. We have -- I think we submitted 22 something. Hang on a second.

MR. BLACKMON: I mean, I know from Montgomery - UNIDENTIFIED SPEAKER: It's been up and down, you know,
 the acquisitions.

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BY MR. NICHOLSON:

2 Q. Montgomery? Yeah. I'm sorry.

A. I mean, the time I was in Montgomery we replaced cast iron. We had -- this process worked. Again, this was after I moved out of the staff role so I was more on the local management team that would be making decisions about what areas of towns are our problems in and what --

8 Q. This was as a division supervisor?

9 A. This would be a, right, a supervisor of distribution and 10 engineering in Montgomery.

11

Q. Yeah. Right. Okay.

12 Α. Similarly, in Gadsden as superintendent, the same 13 process was in place. The same process worked. We identified the 14 areas of concern and -- both in bare steel and in cast iron -- and 15 we had projects in every budget year that I've been a part of in 16 the 26 years, I guess -- or 24 years since I've come back here, 17 but the 24 years I was in divisional operations, everywhere I was 18 there were cast iron bare steel replacement projects in each 19 budget every year that I prepared a budget. And I was responsible for budgets everywhere I worked. 20

21 Q. So it was being replaced?

22 A. Right.

23 Q. Correct.

A. And I couldn't give you numbers --

25 Q. No. That's --

- A. -- company-wide or even locally, but year by year. But
   it was a process that generated projects to be replaced.
- 3 Q. Sure.

4

A. We replace pipe every year.

5 Q. Okay. So then were you involved when this process then 6 changed, became more centralized during the reorg?

- 7 A. In 2011?
- 8 Q. Yes.
- 9 A. Not so much.
- 10 Q. Oh, okay.

11 A. I have other duties and roles within the system 12 integrity department, and certainly I touch it, because one of my 13 responsibilities is project engineering so I have individuals that 14 design the projects.

15 Q. Okay.

16 Once they've been determined where are we going to Α. 17 replace cast iron or bare steel, then I would -- I have a staff in 18 Montgomery and a staff here in Birmingham that does those project 19 designs company-wide. They are also responsible for the final posting of that information back into our GIS just once the 20 21 projects are complete. And then I do have responsibilities, 22 really from a user standpoint, of our GIS system. I don't have 23 the IT responsibility of making sure everything's up-to-date as 24 far as versions and that sort of thing.

25 Q. Right. Right.

A. But from a user's standpoint, I have responsibility for a group of employees that work towards how we use our GIS system and what we can use it for. And part of that is in support of this process of taking leaks and geocoding them and getting them into our GIS system to where you can see them plotted on a map, you can have addresses line up to the leak locations.

7 Q. Yeah.

A. That's one of the many applications that our GIS system 9 can do and I touch it in that respect. I don't look at it from a 10 standpoint like Mr. Johnson does of making decisions of what we're 11 going to replace year by year.

12 Q. Right.

13 A. It's not in my role.

14 MR. NICHOLSON: Okay. Ravi. I'll pass it on to you.15 BY MR. CHHATRE:

Q. I don't really have too many question, but I'd like to -- just some clarification questions here. You did mention you guys have corrosion technicians. Do you have a corrosion group in the company as a whole or corrosion engineers who look over the corrosion technicians?

A. We have corrosion technicians and we have, since I've been here -- the number may have changed, but it's usually one per division and in some locations, like Birmingham, we would have multiple corrosion technicians to oversee. But it's driven by the amount of pipe and the amount of workload drives how many

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1 corrosion technicians we've had. But I believe that group came 2 together probably in 1972 about the time the DOT regulations came 3 out, that corrosion group of technicians was born, and we've had 4 them ever since.

5 Q. Okay. But, I mean, do you have a corrosion engineer who 6 overlooks these people if they need any technical advice?

7 A. We do not have a corrosion engineer.

8 Q. Okay. Now, are these corrosion technicians internally 9 trained? What kind of background a typical corrosion technician 10 would have?

11 A. They would receive a fairly significant amount of NACE, 12 National Association of Corrosion Engineers, training. They would 13 go to the different schools, receive certifications for various 14 levels, depending upon what their roles were. They would all get 15 a basic level and then intermediate level. Some go on to do 16 training and certification in pipe coding and other kinds of 17 specialty things. Not all of them do that.

18 But they would receive that, and then they would work --19 you know, when they come into the corrosion department, they would work with other corrosion technicians for an extended period of 20 21 time to really learn the ropes and understand what they're supposed to be doing and how to do it. Certainly, there was 22 23 always a blend of experience level within the department, where 24 you had senior technicians that had been there since the mid '70s 25 and then younger employees that came in, that there was always an

older person they could call if they were having trouble figuring
 something out. There was a very good experience level in that
 group. Always has been.

Q. Does the company have like a corrosion technician 1, 2,
3 kind of ladder or are they all called corrosion technicians?
A. They do. And it's in part driven by years in the job
and their level of certification. To advance, they have to pass
these NACE certification levels.

9 Q. How do these technicians interact? You have like just, 10 say, one technician per division or maybe more than one, but how 11 do they interact among themselves, how the information gets 12 translated internally?

A. And like I mentioned earlier, there's been some change over the 35 years that group's been in effect, to where they've been centralized, they've been decentralized. But they've always been a cohesive group that, whether they're in a decentralized reporting structure, they still spend a lot of time together as a group. They would have meetings, usually here in Birmingham.

And again, I'm thinking back on my time where I had a corrosion technician in Gadsden report to me. Or my time in Montgomery, where I was around the corrosion technicians that worked Montgomery. They would periodically come together as a group. They would deal with whatever issues as a department they needed to. They would sharpen each other's skills, help each other. Certainly they would do ongoing training.

1 Q. So there was a formal process for that? Like was there 2 an annual meeting of the technicians?

3 A. Not a formal process, no.

Q. Are they required to copy each other what their findings
5 are, or? So it's more informal than a --

6 A. Yes, sir. More informal.

Q. How would they meet? How would they meet each other?A. How?

9 Q. Yeah. Well, you said they would certainly meet. So I'm 10 just trying to find out how did they meet?

11 I mean, generally -- like I said, my experience, having Α. 12 one work for me and just knowing generally his schedule, was, you 13 know, at least several times a year they would have departmental 14 meetings where the corrosion technicians from all over the state 15 would come to Birmingham usually, because that's where the 16 majority of them were located here. And they would, you know, 17 have meetings or they would have a training session and they would 18 come in for whatever the training session was. But it wasn't a 19 formal, required process; it was just how they did business.

But again, you know, the technician in Anniston and Gadsden are in close proximity to each other, so even if there was just one of them, they would share each other's workload. If one of them had a particularly rough year where they might, due to vacations or sickness or just reading levels, needed extra help, they would call for one of the other ones to come help them and

1 they would share workload.

2 There was a common supervisor for part of that time when 3 it wasn't decentralized. So even when they were spread around the 4 state, there was a common supervisor that worked with them, helped them, trained them, provided opportunities for dialogue and 5 discussion. And even when it was a decentralized structure, like 6 7 I said, it was still a group that bonded, again, because they kind of were -- you know, they were always a group, whether they were 8 9 formally a group in the org structure all reporting to the same 10 person or whether they weren't, that group has always been a 11 fairly tight, close group that worked together and helped each 12 other and spent time together.

Q. So what I understand the technicians, I guess, responsibilities were to check the rectifiers, install the rectifiers if need to --

- 16 A. Right.
- 17 Q. -- cathodic protection, monitor CP levels.
- 18 A. Right.

Q. Who would oversee the quality of their work? How would you know if a technician made an error? We are all humans and we all make -- could make errors. Would there be a structure or outlined structure that would check the accuracy of a technician's readings or the decisions he made? How would that process be handled?

25 A. Again, it would be a little difficult to give a single

1 answer for how it's been structured and organized for the last 35
2 or so years, recognizing there's been a lot of changes, but
3 there's always been supervision.

Q. Done by whom and who would check their work?
A. I don't know that, generally speaking, somebody checks
6 their work.

7 Q. Okay. And that's fine.

I know it, you know, it is an area of compliance for us. 8 Α. 9 The Public Service Commission certainly overlooks our records and 10 goes out and takes readings and -- so there's definitely follow 11 But individual supervision, whether it be centralized or up. 12 decentralized, have responsibilities to work with their corrosion technicians to make sure rectifiers were working and areas were 13 14 under protection, and if they weren't, you know, what were we 15 doing about them? Did we need to do something capital-wise, and 16 they would get their management involved in doing that. But as 17 far as somebody checking -- you know, going with them and checking 18 their pipe readings --

19 Q. -- (indiscernible) but I'm saying if a technician comes 20 in and says you need a new rectifier at this location.

21 A. Right.

Q. As a status check, if you would, if not accuracy check, how would you decide, yes, indeed we need a rectifier. That's what I'm looking for. I mean, like, engineering there are people who will review drawings and there's a sign-off.

A. Well, I mean, I can only speak from my experience,
 again, in Montgomery and Birmingham and Gadsden. You know, those
 technicians were --

4 Q. Pretty good.

Ο.

A. -- incredibly good at what they did.

6

5

Okay, that's fine.

A. And when they would come to me and say we're having a problem in this area keeping this steel under compliance or, you know, we're continuing to have lightening problems here, we need to change the technology, I was usually pretty quick --

11

Q. I hear you.

12 Α. -- not being an expert, to go with what they said. Now, would they -- were they ever called on to -- and I 13 Ο. 14 think some of the supervision was -- both groups are under you, 15 but if a group goes out to address a leak, maybe grade 1 and grade 16 2 or whatever the leak may be, would a corrosion technician ever accompany them to address that it's a corrosion leak or third-17 18 party leak? Was there a cross-connect or the corrosion 19 technicians never went at the repairing of a leak?

A. I think it's somewhere in between. They certainly have been called upon to go out and look at conditions that either management or field personnel wanted them to see, whether it's a disbonding of a coating or whether it's some pitting where pit depths needed to be measured or whether it was just to get an experienced set of eyes to look at it, that certainly does happen.

1 I wouldn't say it's a daily responsibility of theirs to --

Q. Right. But I'm referring to cast iron where there is no coating issue with the cast iron pipes. My focus really is cast iron, not steel, so there really is no coating issue with cast iron.

6 So I'm just wondering the cast iron replacement project 7 that you have, was there -- how do you verify there is -- the 8 technician went in there, would there be some indication that the 9 technician was there in that sheet that the repair crew is 10 supposed to fill in? Will there be some information that John Doe 11 or Jane Doe was here and looked at it and verified the corrosion 12 damage?

A. And again, I would say, you know, our corrosion technicians' responsibilities are really centered around our steel, so --

16 Q. Probably not, I guess. And that's fine. I'm just 17 trying to --

A. It's not to say it hasn't happened, they haven't been called to look at cast iron or they hadn't been in the area when some has been dug up, but it's not a normal protocol for a corrosion technician within our company to be called to a cast iron leak to look at, analyze, make a recommendation.

23 Q. Okay.

A. From my experience.

25 Q. Right, right. So even when a certain pipe is, I guess,

1 scheduled to be replaced based on the leak history, at that level 2 the technician wouldn't go to look at any of those pipes in the 3 past where there's a corrosion issue?

4 A. Cast iron?

5 Q. Yeah. Mainly on cast iron.

6 A. I don't believe so.

7 Q. Because you have more cast iron replacement, really.

8 A. I don't believe so.

9 Q. Okay. Going back to the maps now. Now information gets 10 put on the maps of, on the leaks, location, I guess, address or 11 whatever. How does the process work? I mean, who is requesting 12 information to get put on the maps? Who puts it on the maps and 13 who checks, I guess, cross-checks for accuracy or sanity check, if 14 the information is entered correctly?

15 A. And this would be back in 1985?

16 Well, I mean, you can walk me through. I do not know Ο. 17 how far back it goes. I mean, you can start like in today if you 18 want and go back. My focus really is pre-rupture or pre-accident 19 and, of course, moving forward. Moving forward is less important 20 to me right now. That we can capture later on when Bob sends us 21 the information. But pre-accident, how did that information get 22 verified, if you will, accuracy check, revision, whatever term or 23 word you want to use?

A. The plotting of the leaks on maps manually was not a process that's been done in the recent past. I mean, that really

was something that was created back in 1985 or 1986, again, to get us started on accumulating data in a graphical form that could be an input, along with local input, to making replacement decisions. I was involved with it until '88 when I moved to Montgomery. Others would have replaced me after that, but, you know, that process was what was being used at that time.

7 No, I just want -- maybe I did not phrase it right. Ο. What I was really looking for is, the crew goes and repairs a 8 9 leak. And the crew fills in that form to get, whatever the term 10 may be, that on this day, this time, we fixed a leak on this cast 11 iron, on the main or service line or whatever. And when the 12 ticket is generated, what happens to the ticket after that? 13 MR. GARDNER: Are you talking about during the SAP time, 14 or?

MR. BLACKMON: It's changed over the years.
MR. CHHATRE: No, I'm -- pre-accident. Pre-accident.
MR. GARDNER: Pre-accident, but you're in SAP after
2003?

19 BY MR. CHHATRE:

Q. But I thought SAP was only moving forward. I'm looking
for what happens before SAP was implemented. Something has to
happen to the ticket, whether you are SAP or not SAP, right?
A. Right. There was a system, an IT system, and if you
remember Bob, help me. But prior, CICS, maybe it was CATS, C-A-TS, but --

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MR. GARDNER: I don't remember.

### 2 BY MR. CHHATRE:

3 Ο. Let me get back to it. I'm just trying to find out, if 4 I'm a technician going and fixing a leak in front of the ground zero, I fix the leak, I generate a ticket, whether you are SAP, 5 6 computer, manual, it doesn't matter. Something happens to that 7 ticket. Somebody sees that and somebody tells somebody to enter that on a map. Somebody enters it on a map, or whatever the 8 9 system may be, and then somebody checks it and says, yes, the 10 information is -- quality control, if you want to call it. MR. NICHOLSON: I think Ken did tell us didn't that 11 12 transition from a paper ticket to now it's done in a truck on a 13 computer. 14 MR. CHHATRE: Right. 15 MR. NICHOLSON: So it goes direct into SAP. 16 MR. CHHATRE: Right now it goes. But pre-accident? 17 MR. NICHOLSON: Not pre-accident, pre-SAP, right? MR. GARDNER: Right. 18 19 MR. NICHOLSON: Because during the accident they were 20 still doing everything electronically. That was just 2013. 21 MR. GARDNER: Right. That's right. That's right. 22 MR. CHHATRE: Okay. Maybe I missed that. 23 MR. NICHOLSON: You're pre-SAP. 24 MR. CHHATRE: Pre-SAP was you start -- you said you were 25 moving forward, nothing to do with --

1	MR.	NICHOLSON:	From	2003	forward.
1	1.11/ •		L L OIII	2005	IUI walu.

2 MR. CHHATRE: Right. Okay.

We have had -- we've had an electronic 3 MR. GARDNER: 4 tracking system for our leaks on other things since we went live with SAP in January of 2003. We have had a mapping system, a GIS 5 6 system, since around 2006, 2007. So since '06 and '07, then we 7 kind of merged those two, as it's been previously described. But we were on -- as I understand it, we were on a paper leak ticket 8 9 system prior to 2003, and there may have been some electronic 10 capturing that Ken would understand better than I would.

11 MR. BLACKMON: Yeah. I mean, certainly since computers probably came along -- well, let me speak -- since I've 12 been here since 1984, we have had field crews completing orders in 13 14 the field, filling out paperwork, that paperwork coming back into 15 an office somewhere where a data entry person would enter key 16 pieces of information so that all leaks are kept in a system. We 17 just changed systems, I know three times since I've been here: 18 CICS, CATS, SAP. I know those are the three that have captured 19 main and service leak information.

20

BY MR. CHHATRE:

Q. Okay. That's fine. Bob can get back to us and just telling what happens to the ticket generally then. If you don't have -- if you don't recall right now, that's fine.

A. So the mapping was really extra in addition to anelectronic capturing of that leak information, okay? Because it

1 wasn't as conducive to somebody to study it if there trying to get
2 information -- and I'm going back in time.

Q. Sure. That's fine.

Back in the mid '80s, it was difficult to get much 4 Α. information out of a green bar report that just kind of listed 5 6 leaks and they weren't in any order, other than maybe date. And 7 we said that -- somebody can't look at that and draw correct conclusions. So what's the best way to draw correct conclusions 8 9 of knowing where your leak populations are? It's graphically. But we didn't have a GIS system. 10

11 Q. Okay.

3

A. So we used as a supplement, this mapping effort to try to capture that information over years, while at the same time still capturing electronic data. But then as new technologies came in, that old methodology was just no longer necessary.

16 No. I'm going back -- I'm going back to your ranking Ο. 17 system. So if you have historic problems in a certain system --18 all the newer systems are all computer generated and more accurate 19 that you can look at. So if a certain area had a historic problem 20 before you start going into the modern systems, how would your 21 ranking system reflect if you have a historic problem with that if 22 there is no way of doing that? That's where I was really coming 23 from. Or you can back to me. That is fine.

A. We would need to get back with you on how muchhistorical data was brought forward each time we migrated to a new

1 system.

2 And it may or may not impact. But it could have an Q. 3 impact on your replacement program, so I just wanted --4 Α. I do -- you know, there has been a -- I think, and reasonably so, you know, looking at the most recent data, 5 6 certainly the most recent 10-year data, gives the most accurate 7 picture of what is going on with your pipe, maybe even more so than something that happened 30 years ago. You may have had a lot 8 9 of joint leaks 30 years ago, but the joints were taken care of, 10 and then you go through a season where you don't have many pipe 11 wall leaks, but then those pipe wall leaks start to occur. That's 12 the more recent activity. That's what you really need to be 13 analyzing.

14 On this replacement project, when you replace a certain Q. 15 section of the cast iron main, service, doesn't matter what, does 16 anybody look at that pipe that comes out of the ground, or just, I 17 would say, examination as to whether you decided to replace it, 18 how bad it was or in what condition the pipe is just to --

19 Α. After the fact?

20 Q. Yes.

21 Α.

After it's retired?

22 In other words, when you replace it, does anybody look Q. 23 at the pipe that is being replaced for the condition of the pipe? 24 Α. Not after the fact. All of that would have been, you 25 know, this capturing of information when the pipe's dug up to draw

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1 those kinds of conclusions. But once the pipe's been retired, 2 taken out of service, it's rarely removed -- on some occasions, 3 the pipe's physically removed, but usually it's left in place --4 Ο. Right. 5 -- and capped and treated properly and retired, Α. 6 abandoned in place and not pulled out and --7 MR. GARDNER: You can't access it in all cases either, 8 right? Say that again? I'm sorry. 9 MR. CHHATRE: 10 If it's under a highway or a sidewalk, you MR. GARDNER: 11 can't necessarily --12 MR. BLACKMON: You just leave it in place. 13 MR. GARDNER: -- you can't necessarily see it to remove 14 a section. 15 MR. CHHATRE: I understand. But there is no program 16 that if you have access at all to look at it or just pull it out. 17 Forget about (indiscernible), but just pull it out and look at it? 18 So there is no look --19 MR. GARDNER: (Indiscernible). 20 MR. CHHATRE: Okay. And that's pretty much it for me. 21 Thank you so much. 22 MR. NICHOLSON: Nothing from Keith. Wallace, any 23 questions at all? 24 MR. JONES: No, not right now. 25 MR. NICHOLSON: Okay. Nothing. Bob, (indiscernible)?

1 MR. GARDNER: No. Thank you. 2 NICHOLSON: All right. I'll just check my notes here. 3 BY MR. NICHOLSON: I don't think we got for the record, Ken, your 4 Q. 5 background -- your formal training or education. Could you just 6 briefly describe that? 7 Α. Sure. I graduated in 1983 from Auburn University with a 8 degree in civil engineering. 9 MR. NICHOLSON: Okay. All right. I've got nothing 10 further. Ravi? 11 MR. CHHATRE: No. That's it. 12 MR. NICHOLSON: All right. Ken, thank you for your 13 time. We'll go off the record now, and I appreciate it. 14 (Whereupon, the interview was concluded.) 15 16 17 18 19 20 21 22 23 24 25

### CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: ALABAMA GAS CORPORATION (ALAGASCO) NATURAL GAS RELEASE WITH IGNITION BIRMINGHAM, ALABAMA DECEMBER 17, 2013 Interview of Ken Blackmon

DOCKET NUMBER: DCA-14-MP-001

PLACE: Birmingham, Alabama

DATE: July 15, 2014

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

> Shannon Smearman Transcriber