UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
ALABAMA GAS CORPORATION (ALAGASCO)	*	
NATURAL GAS RELEASE WITH IGNITION	*	Docket No.: DCA-14-MP-001
BIRMINGHAM, ALABAMA	*	
DECEMBER 17, 2013	*	
	*	

Interview of: BILL ROBERSON

Alagasco Headquarters
Birmingham, Alabama

Monday,
July 14, 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. 20594

RAVI CHHATRE, Accident Investigator
Pipeline Division
National Transportation Safety Board

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

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

REID CARPENTER, Esq.
(Representative on behalf of Mr. Roberson)

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I N T E R V I E W

MR. NICHOLSON: Good morning. Today is Monday, July 14, 2014. My name is Matthew Nicholson. I'm an investigator with National Transportation Safety Board in Washington, D.C. We are at the Alagasco Headquarters in Birmingham, Alabama. This interview is being conducted as part of the investigation into the natural gas distribution release and ignition that occurred in Gate City, Birmingham, Alabama on December 17, 2013. This is case number DCA-14-MP-001.

This interview is being recorded and may be transcribed at a later date. A copy of the transcript will be provided to the interviewee for review prior to being entered into the public docket.

Mr. Roberson, you are permitted to have one other person present during the interviews. This is a person of your choice: supervisor, friend, family member, or no one at all. Please state for the record who you have selected?

MR. ROBERSON: Reid Carpenter.

MR. NICHOLSON: Okay. Now I'd have everyone introduce themselves. State your name, title, agency you're representing today. I'll start and we'll go around the room to my left.

Matthew Nicholson, M-a-t-t-h-e-w, N-i-c-h-o-l-s-o-n. I'm an investigator with the NTSB.

MR. CHHATRE: Ravi Chhatre, National Transportation Safety Board. It's R-a-v-i; last name, Chhatre, C-h-h-a-t-r-e.

And my business phone is 202-314-6644.

MR. CARPENTER: Reid Carpenter, R-e-i-d, C-a-r-p-e-n-t-e-r. I'm an attorney with Lightfoot, Franklin and White, and I'm here for Bill Roberson.

MR. ROBERSON: Bill Roberson, B-i-l-l, R-o-b-e-r-s-o-n. I am construction field supervisor for Alabama Gas.

MR. JONES: Wallace Jones, W-a-l-l-a-c-e, J-o-n-e-s. I'm Administrator of Gas Pipeline Safety for the Alabama Public Service Commission, and my business office phone number is area code **PII**

MR. GARDNER: Bob Gardner, G-a-r-d-n-e-r, Director of Quality Assurance and Compliance, Alagasco, phone number 205-**PII** **PII**, and also the party representative for Alagasco.

INTERVIEW OF BILL ROBERSON

BY MR. NICHOLSON:

Q. Okay, Bill, I think to start with, let's get a little background, if you would. Maybe repeat your title with the organization, how long you've been in that position and how long you've been with Alagasco?

A. Okay. I am a SI field construction supervisor. I have been in this position for roughly 5 years now. I started with Alabama Gas in 1985. It'll be 29½ years in October.

Q. And in the nearly 30 years you've been at Alagasco, what other positions have you held?

A. I started here as a crewman. I moved up to leaderman,

then operator and then field supervisor, all in construction.

Q. Okay. And you said now you're SI field construction?

A. Yes.

Q. What's the SI?

A. System Integrity.

Q. Okay. And can you elaborate a little bit? Tell us what a SI field construction supervisor is in charge of.

A. We handle their crews that actually go out on a day-to-day basis and repair leaks. We are over backlogs to make sure the leaks have been repaired before there's any compliance issues. And basically it's just to manage the men.

Q. So the men that work under you are the men that actually repair the leaks?

A. Yes.

Q. But they don't do the leak surveys?

A. No.

Q. Okay. So can you talk a little bit about that process then, how you get notification that there was a leak and --

A. Well, we have a backlog that when our survey crews, contractor, goes out, surveys areas, they turn in the records of the leaks that they find and, you know, the date that they find them on and we -- they compile them on a list and which is what we consider our backlog that we work off of to -- it lets us know, you know, which leak to work first, going by the date it was found, just so we can keep up with our leaks in a timely manner.

Q. Okay. So we've heard about the grading of leaks, the, I guess, 1 through 4, right?

A. Um-hum.

Q. Can you talk a little bit --

MR. GARDNER: Excuse me, Matt.

MR. NICHOLSON: Yeah?

MR. GARDNER: One through 3.

MR. ROBERSON: Three, right. Yeah.

MR. NICHOLSON: Oh, 1 through 3. I apologize. I gotcha.

BY MR. NICHOLSON:

Q. Can you tell me how that factors into -- or explain to me what the grades are and then how that factors into when they're repaired or how often?

A. Grade 1 are leaks that need attention right away. It either could -- it could be broke service, a broke main, maybe a high reading in a business district, maybe all asphalt or concrete.

Q. What difference does that make, all --

A. Well, as far as the migration pattern, and plus it's a high people area.

Q. Okay.

A. And if it's in certain confined spaces: sewers, water boxes, or up close to maybe foundations of buildings or houses is a grade -- is grade 1. And we consider those leaks grade 1's

until we can go out and either actually repair them or bar test, downgrade if we can to -- if we can, you know, draw the gas away from a building or draw it out of the confined space, you know, to downgrade it. Other than that, we actually dig them up and repair them.

Grade 2 is considered really a non-hazard leak to the public. It is put on the backlog and we have 12 months, not to exceed 15 months, to make the repairs on that leak.

Grade 3 leaks or leaks that are monitored, can be monitored, you know, and not necessarily worked in a certain amount of time, as long as we monitor them every so often to make sure they have not gotten worse.

Q. Okay. So grade 3 doesn't have to be repaired at any set interval, you just monitor it?

A. Right. We can --

Q. Okay.

A. And as long as we monitor it.

Q. So I want to go -- so it's not -- the grading isn't necessarily dictated by the bar testing or the --

A. It is.

Q. Oh, it is?

A. Southern Cross grades them sometimes.

Q. Okay.

A. Well, most of the time, all the leak surveys. And our operators, which we call first responders, are also -- do the

grading of it.

Q. So what makes a grade 1 from a bar test standpoint? I know there's percent LEL and percent gas ratings. What's the --

A. Well, it -- what makes it a grade 1 is just the particular location that the leak is at.

Q. Well, that's what I'm asking. So it's more than just the quantity or the amount measured?

A. Yes. It's more than --

Q. Okay.

A. Yeah, I mean, it can -- just because it's 90 percent gas doesn't necessarily mean it's a grade 1. It's got to depend on location --

Q. Okay.

A. -- a leak pattern or migration if it's migrating. If it's in a confined space -- we consider like a water box --

Q. Right. Okay.

A. -- a confined space, valve boxes in streets, storm sewers, sewers confined spaces. You know, anywhere that it can like and travel.

Q. And I wanted to talk more, you said when there's a lot of asphalt, you got the possibility of migration?

A. Well, it's -- when you have a lot of asphalt, like you do in the downtown area, it can't --

Q. Rise?

A. -- evaporate.

Q. Okay.
A. It spreads instead of evaporates.
Q. It goes horizontal --
A. Right.
Q. -- I guess, through the soil?
A. It goes -- it travels instead. Well, if you got one that's -- you know, main behind a curb or it can bend straight out up through the dirt.
Q. Okay.
A. The asphalt kind of holds it, holds it there.
Q. What about -- so that sounds like something everyone's recognized, that asphalt kind of caps it off. What about soil types? Do we know what effects gas migrating out of the soil or through the soil? Are there -- is it a function of water or moisture?
A. Well, it can be, I mean, numerous of things. You know, the gas is going to travel its least resistant. It could be ditch lines, you know.
Q. Okay.
A. It could travel its own ditch line, you know, the least --
Q. What do you call a ditch line?
A. Where the pipe was put in. The --
Q. Oh, oh, okay. The annulus where that pipe runs?
A. Yeah.

Q. Okay.

A. It just -- it's going to go the most resistant path that it can take to move.

Q. Least resistant?

A. Least resistant, yeah.

Q. Okay. Then so that doesn't get into clay versus loamy soils or --

A. No.

Q. Okay. You guys don't monitor that?

A. I mean, it -- you know, we have clays in spots and, you know, it affects us on how we bind them sometimes because they don't seem to travel as good in clay as it does in regular soil.

Q. Okay.

A. So it tends to kind of hold it in one spot.

Q. Okay. Can you tell -- I mean, you've done this 30 years. Can you tell by looking at a particular location where or how it might migrate? Is that something obvious to the technical person?

A. Well, just when -- depending on what part of town or area you're in, if it's all asphalt or concrete --

Q. Okay.

A. -- you know, it's going to be -- than versus out in a subdivision, where you may have the main, even though the main may be in the street, but you've got yards, grass, you know, where it could come up out of the street there --

Q. Right.
A. -- versus like a downtown area.
Q. Okay. And then I didn't capture this. Who do you report to at Alagasco?
A. I report to Henry Buchanan is my immediately -- immediate supervisor or manager.
Q. And what's his title?
A. Henry Buchanan.
Q. His title is Metro manager?
A. Oh, he's the manager of Birmingham, Metro construction.
Q. Okay.
A. Or Metro SI.
MR. GARDNER: Let me give you his exact title, if you want me to?
MR. NICHOLSON: Yeah, that's fine if you want to do that.
MR. GARDNER: He's manager, system integrity --
MR. ROBERSON: Yeah.
MR. GARDNER: -- Metro.
MR. NICHOLSON: So system integrity, wouldn't that -- does that -- is that part of Mixon's group, then, as well or is this -- is system integrity different than integrity management?
MR. GARDNER: The System Integrity Department, you've met Ken Smith.
MR. NICHOLSON: Right.

MR. GARDNER: Our VP of system integrity.

MR. NICHOLSON: Yeah.

MR. GARDNER: Joe Hampton is the tactical manager over system integrity. Mr. Buchanan reports to Joe.

MR. NICHOLSON: Okay.

MR. GARDNER: Mr. Buchanan has a counterpart in other areas in the state that all report to Joe, and Joe reports to Ken.

MR. NICHOLSON: Okay. Yeah, so they're broken out by division then?

MR. GARDNER: So the field operations, for lack of a better term, is synonymous with the tactical side of system integrity. In other words, Joe is responsible for the field employees. They have managers that report to Joe, then supervisors report to those managers, and the field employees roll up to those supervisors.

MR. NICHOLSON: Okay.

MR. GARDNER: Does that make sense?

MR. NICHOLSON: Yeah, it makes sense, but -- so you don't, you don't roll up under Mixon then? It's a separate --

MR. GARDNER: No, Mixon has really responsibility for pipe replacement --

MR. NICHOLSON: Right. Okay.

MR. GARDNER: -- maintenance planning, that includes corrosion, leak surveys. And so his is more of a company-wide level, whereas Bill's, in particular, is focused on the Birmingham

area.

MR. NICHOLSON: Okay.

MR. GARDNER: More geographic than statewide.

BY MR. NICHOLSON:

Q. Well, Bill, then let me ask you, what's your interaction Mixon when it comes to doing the risk analysis or cast iron replacement? Is --

A. Very little.

Q. Very little? So the findings you're -- the stuff you're coming up with in the field, the fixes, it doesn't get integrated with the integrity group at all? Or is it --

MR. GARDNER: Well, may I interject?

MR. NICHOLSON: Yeah, go ahead.

MR. GARDNER: The information that is captured in our leak system that Bill's employees --

MR. NICHOLSON: Right.

MR. GARDNER: -- perform, the leak repairs Bill's employees perform is the data that is utilized by Mixon's group and others to look at --

MR. NICHOLSON: Right.

MR. GARDNER: -- the leak picture. They are also utilized in terms of personal interviews or interactions to -- I know you're going to talk more about this, but they are consulted when the data is compiled to come out later and say this is what the data shows, tell us what else you know about the operating.

MR. NICHOLSON: They being Bill or --

MR. GARDNER: It would probably be Henry --

MR. ROBERSON: Yeah.

MR. GARDNER: Could be Bill; it could be Henry --

MR. NICHOLSON: Okay.

MR. GARDNER: -- and his counterparts, but they can speak to that better than I can. But there is an interaction with the field personnel, but it starts from the data that's collected by them.

MR. NICHOLSON: The data, okay.

MR. GARDNER: And then as they consider pipe replacement scenarios, there would be some discussion. It may not be every supervisor in every location, but it ultimately is the people like Mr. Buchanan and others, his counterparts, that would be consulted about that.

BY MR. NICHOLSON:

Q. Well, can you give me a flavor, then, what kind of input do you have?

A. I mean, I may make suggestions to Henry that, you know, we may need to get this on the list, see if we can get it on the list as being replaced, you know, if --

Q. What would cause you, what would rise to that level?

A. Just numerous trips to the same area or, you know, same block, you know, and by what I see in the field as far as corrosion.

Q. Well, that's what I want to know.
A. Yeah.
Q. What would you see that would make you --
A. Corrosion mostly.
Q. Okay. Corrosion?
A. Yeah.
Q. Okay. And corrosion being the graphitic corrosion?
A. Yeah.
Q. Is that typically what you see out there?
A. On cast iron.
Q. How do you know you have graphitic corrosion?
A. Just by when you dig it up and you see it. That's --
Q. Okay.
A. We don't know what's we're finding until we actually -- you know, we know we got a leak, but we don't know what it is until we dig. Could be a joint, you know.
Q. Okay.
A. It could be a, you know, corroded or a coupling or a fitting or something.
Q. So do you document when you've dug it up and looked at is? Is it documented, people get to write down what caused the leak or --
A. It is on the crew's paperwork that they fill out.
Q. Okay.
A. They put the explanation on what they repaired at

that -- on that particular order.

Q. And is that just a narrative that they're --

A. Yeah.

Q. -- free to write or they select multiple choice on condition of pipe?

A. Yes.

Q. It is --

MR. GARDNER: It's actually both.

MR. ROBERSON: It's both. It's actually both.

MR. NICHOLSON: Oh, okay.

MR. ROBERSON: They have written comments that they type in and they also have drop down boxes.

BY MR. NICHOLSON:

Q. Oh, this is a electronic --

A. Yes.

Q. -- sheet then?

MR. GARDNER: Do you remember the leak causes we discussed in here --

MR. NICHOLSON: Yes.

MR. GARDNER: -- this morning? They have to select one of those, and then they have ability to have free text where they can type in the --

MR. NICHOLSON: What are the causes they can list? I didn't see them all.

MR. GARDNER: They're the eight major causes that PHMSA

defined.

MR. NICHOLSON: The PHMSA -- okay.

MR. GARDNER: They include corrosion, natural forces, excavation.

MR. ROBERSON: Yeah, I think moderate corrosion --

MR. GARDNER: Other outside forces.

MR. ROBERSON: -- high corrosion, stuff like that.

BY MR. NICHOLSON:

Q. So if it's graphitic corrosion, that's -- the only choice is corrosion or do you go -- dig down any deeper? Is there anything else that you guys --

A. Just corrosion, yeah.

Q. You don't do --

A. Or it could be -- or yeah, like Bob said, natural causes, third-party damages, you know, act of God, lightening.

Q. Okay.

MR. GARDNER: We also record a damage -- if it's a damage, we'll record the location on the pipe. If it's a joint, we'll put there the part. There's opportunities for several pulldown to where that gets --

MR. ROBERSON: Right.

MR. GARDNER: -- gets documented.

MR. NICHOLSON: What's the name of the sheet that they're filling out? What do you call that sheet?

MR. ROBERSON: It's just -- it's their RMS field report.

MR. GARDNER: It's electronic.

MR. ROBERSON: Yeah, electronic, but it's a field report is what we call it.

BY MR. NICHOLSON:

Q. Field report, okay. What was the RMS?

A. That's just a system that we use to --

Q. Oh, okay. So I'm trying to understand then. If it's graphitic corrosion, do you quantify it as generalized or localized? Is there that sort of breakdown or --

A. No, they'll -- I think there's, like, a moderate --

Q. Okay.

A. -- corrosion and then -- gosh, it's been so many years since I've done it. But I think -- I remember, like, moderate corrosion and then -- yeah, I mean, I can't remember. Actually, I have never field -- I have been out of that job so long, I never done it on a computer. When I was doing it, I was doing it on paper.

Q. I understand. Okay. But there are, you do --

A. Yeah, if I remember --

Q. -- moderate to severe --

A. If it's still the same, yeah.

Q. Okay. Is this -- I'm trying to figure out now then --

MR. NICHOLSON: And Bob, maybe you need to address this. Is this the same system I saw put in place after that ZEI? It looked like you guys, Alagasco had started maybe a database that

you were going to qualify --

MR. GARDNER: Yeah, it's -- it's similar to that in that, in general, when we expose a piece of pipe, we report on the pipe condition, any corrosion --

MR. NICHOLSON: So I see, like light new, mild corrosion, moderate corrosion?

MR. GARDNER: Yeah, and there's a -- there's an opportunity for them to record the pipe condition, again, you know, moderate corrosion, severe corrosion, et cetera. I think that's being documented on the leak orders. I'd have to check.

MR. ROBERSON: Yeah, I can't remember what -- I'm just trying to remember what the old one says.

MR. GARDNER: I know it is on the steel. I'm not sure it is on the cast iron.

MR. ROBERSON: Yeah.

BY MR. NICHOLSON:

Q. But the people grading this aren't necessarily corrosion engineers?

A. No, no.

Q. Okay.

A. Some of the people that grade it don't even know what's leaking. They don't even see it. They're just going by what they're seeing each day of gas they --

Q. I'm sorry, I mean the guys fixing -- your guys --

A. Oh.

Q. -- fixing it aren't corrosion experts, right?
A. No.
Q. Okay. So it's fairly subjective?
A. I mean, they know what corrosion is --
Q. Right.
A. -- but as far as breaking it down to what causes it and all that, no, but they can --
Q. Right.
A. -- they know how to recognize it.
Q. But even just discerning moderate from significant or moderate, is there a clean -- do you guys have, like, a guide sheet that shows you an exemplar of --
A. No. We kind of go by the length of pipe that we have uncovered --
Q. Oh, okay.
A. -- in that hole. If you, you know -- if it's leaking here, here, here, you know, if you just dig up one -- a 4-foot length of cast iron pipe and you only find one spot, you know --
Q. Okay.
A. -- it's not just eat up all over, that's kind of the way they judge how moderate or how severe it is.
Q. Was there a procedure or a manual that maybe defines these in better detail?
A. Not that I know of.
Q. Okay. And then as far as replacement or repair, what's

the threshold? If you've got moderate corrosion, is that still a clamp or is that a replacement? When do you --

A. Usually when we have to put -- I mean, it's kind of a just a judgment call. If we've got, you know, maybe two or three wraparounds on right there together, you know, then we'll -- they'll write it up that we need to come back and cut it out, cut that section out so many feet up and out.

Q. Okay.

A. Or, and this is when is when I was telling you that I may submit to my boss that, hey, you know, we got --

Q. Oh, okay.

A. -- a lot of corrosion on this main, we might need to, you know, send it up the line and see if we can get somebody to look at it to get it replaced.

Q. So you could have a leak, dig it up and find a clamp already there --

A. Yes.

Q. -- and then you put a clamp on and then --

A. Yes.

Q. Okay. It might be time to do something further.

So there's no procedure or document that tells you that if it extends so many feet on the pipe --

A. No.

Q. -- replace it? Okay. Do you ever call out corrosion engineers to look at some of these?

A. I do not.

MR. GARDNER: For clarification, we don't have corrosion engineers.

MR. NICHOLSON: Okay.

MR. GARDNER: We have corrosion technicians.

MR. ROBERSON: Technicians.

MR. GARDNER: They're not, they're not --

MR. ROBERSON: Yeah.

MR. NICHOLSON: Okay.

MR. GARDNER: -- degreed engineers.

MR. NICHOLSON: But they are NACE certified or somehow --

MR. GARDNER: They are NACE, yes.

MR. NICHOLSON: Okay.

BY MR. NICHOLSON:

Q. Okay. I'm going to leave that topic for just a minute and then I want to discuss a little bit -- I didn't meet you on scene, but I understand you were at the accident on December 17th and I just wanted to get some of that information from you real quick. Can you tell us, just maybe walk us through how you were notified, who notified you, and what you did when you arrived on scene maybe?

A. I was notified on my way to work that morning by my fellow supervisor who was actually on call that week. It was their call week.

Q. Who is that?
A. Which was Rob Wall.
Q. Rob?
A. Rob Wall.
Q. Wall?
A. W-a-l-l.
Q. Okay.
A. R-o-b. He called me when I was on my way to work and I just went straight to the scene from that. I probably arrived around 6, maybe 6:05, few minutes after. Me and Rob arrived about the same time.
Q. Okay. You arrived, you said, about the same time as Rob?
A. Yes.
Q. Okay. And then can you just walk me through the, what you remember on that day? What did you do?
A. When I got there, and of course I had to walk up to the scene. What I remember was we were cutting the service cock off up at the building where a meter was which was still open. And the guy was actually going up there to cut it off at the time. We had been -- crews that were there on the scene had been trying to locate and find the service going to the building with no luck, with all the debris and stuff in the way, and the scene still having some fire spots showing on it, you know, they couldn't get up close enough to the building, you know, to --

Q. So you had the -- the riser fire was still going?
A. The riser, yeah, they had just put it out.
Q. Oh, they'd just put it out?
A. They had just put it out.
Q. Okay.
A. And while -- and that's when our serviceman went up and cut the service cock.
Q. So you saw him do that?
A. Yes. Yes.
Q. Okay. All right. So but, you're saying there were just smoldering fires, or --
A. Yeah, it was just the --
Q. -- structural fires.
A. They were, the fire department was still just spraying the structure.
Q. Okay. I'm sorry, go ahead?
A. And other than that, with, you know, with the amount of water that was on the ground, there really was not much bar testing we could do. So we just kind of, you know, looked around. What I mainly did was look for bubbles. You know, that's the only way I could tell if anything was leaking because, you know, you couldn't stick a leak detector in the ground; it wouldn't do no good.

So but after the sun finally come up and the, you know, the fire department quit spraying, then we started, you know,

poking a few holes down out next to the street just looking for any kind of reading, reading of gas, you know, which we actually didn't -- don't remember getting any kind of reading, because we was out by -- let's see, we was -- yeah, we was out in the street in the concrete gutter.

MR. NICHOLSON: Can you bring that map up with the bar hole testing? I think it'd help if we all knew exactly --

MR. GARDNER: Yeah, and we've actually got a big copy of it too.

MR. NICHOLSON: Oh, even better. That's fine, too.

MR. GARDNER: I can bring out -- let me go ahead and bring it up too.

MR. NICHOLSON: Just so we all know, when you say the street, I want to be sure if we're talking Joppa Court.

MR. GARDNER: It, I'll pull it up. Wallace --

MR. JONES: You can just come around over here. We all can't --

MR. GARDNER: -- you can look too.

MR. JONES: Okay.

MR. GARDNER: And facing you, facing --

MR. NICHOLSON: I can -- yeah, I can do (indiscernible). I'm just going to point for that side. I can read it.

MR. ROBERSON: So here is this Joppa Court.

BY MR. NICHOLSON:

Q. Okay.

A. Yeah, this -- yeah, this is one -- yeah. This is the tree that was on the corner. This is basically where we started poking some holes down here because I had thought I had seen a few bubbles coming out of that, the crack between the concrete and asphalt there.

Q. Okay.

A. So we started knocking holes down here. I wasn't able to do any readings. And as the day progressed, we knocked down more and we're still weren't getting a whole lot of readings because of the water in the ground. Then we -- or Rob did. I didn't actually do these.

Q. Who did those on the east side?

A. These -- Rob Wall did these.

Q. Okay.

A. Actually, I think these, after we knocked so many of them down, we started finally -- must have got close to with the bubbles, is the only way we really found out that where the leak was.

Q. So you weren't getting bubbles prior to doing the bar hole --

A. No. Well I, like I said, I thought I got very few -- and this was still while it was dark. You know, I was -- because I was looking at the concrete, these cracks here, and thought I could see a little bit of bubbles coming from there. It wasn't real big. It may just be every now and then. And then when we

started with -- after the sun come up, we started bar testing back this way, is when they -- when we started seeing -- got closer to the leak and started seeing more bubbles.

Q. Bubbles coming out of the bar hole?

A. The bar hole, right. Yes.

Q. Okay.

A. These Rob Wall and another fellow, another crewman, I think, was -- put these down.

MR. GARDNER: So, just quickly, on this map --

MR. NICHOLSON: Oh, I didn't notice this. Okay.

MR. GARDNER: -- we've got the name, initials, the number. For example, number 5 is Bill --

MR. ROBERSON: Yes.

MR. GARDNER: -- and so that corresponds to here. It's -- or the star with a number in it identifies the individual that did the bar hole readings. You've got it there. I just wanted to point it out if there's any question as to who did what.

MR. NICHOLSON: Well, I actually hadn't noticed that. That's --

MR. GARDNER: It's been a while since we looked at this with you all.

MR. ROBERSON: This is our group.

BY MR. NICHOLSON:

Q. Is that accurate, Bill? Maybe that --

A. Yes, I remember, I myself put this bar hole down under

the slab.

Q. And you're pointing to the one --

A. That was actually under the building.

Q. Well, yeah. It says "see note 10? Whole note 10?

A. Star 5.

Q. Well, it's star 5, but -- and they're more than star 5 -- okay, just one star 5, okay. Okay.

I want to back up a little bit. What made you want to start looking for bubbles? I mean, it was a riser fire.

A. Because, well, knowing with the -- it's just a kind of like, you know, safety, because with that magnitude of explosions, the way it shook, you know, we didn't know at the time actually what might caused it.

Q. Okay.

A. So we were just kind of checking our mains, you know, to make sure that it didn't --

Q. So it's standard --

A. Yeah, right.

Q. -- procedure, you'd say?

A. Yeah.

Q. Okay. And you were called out to specifically do bar hole testing?

A. Not necessarily. I wasn't called out there period. I just, I come out there --

Q. Well, were you notified -- you said you were --

A. Yes, I was notified.
Q. -- notified by Rob Wall?
A. Yes. And I just -- he just called me to let me know if I heard about it and I --
Q. Oh, okay.
A. -- said, no, and then I -- when he told me about it, I just went -- I told him, I'll meet you there, and went straight to the job.
Q. Okay.
A. And when I arrived there, of course, the crews had done dug in here, trying to find the service to the building.
Q. Right. Okay. So, but you were part of this bar hole testing here under --
A. Yeah, we --
Q. -- too?
A. -- knocked a few down here, just -- well, maybe right in here.
Q. With Cody (ph.) --
A. And actually, my -- yeah, my crews continued to bar test up and down here.
Q. Okay. What made you go -- I'm curious about this one here, number 5. What made you think that you should do something under the slab?
A. You know, I don't really know. I just -- I really don't know what made me just go up there and just check, you know.

Q. Were you aware that they were getting high reading or gas readings --

A. Yes.

Q. -- on that side?

A. Yes.

Q. Okay.

A. Because this was late in the afternoon the first day. It was late in the afternoon.

Q. So well after the other surveys had been done?

A. Yes.

Q. Okay.

A. It was well after all this had been done, and it was even after we dug up and found -- repaired the broken main.

Q. Okay.

A. This was done, it was the day of the explosion, yes.

Q. Did you drill a hole or --

A. No, I just --

Q. -- was there an existing --

A. It's dirt. I just punched it up under the slab.

Q. Oh, okay. So you weren't --

A. I was right next to the foundation.

Q. Oh, the slab was crushed?

A. Yeah, and I just punched it under the slab, under the bottom floor.

MR. GARDNER: You didn't penetrate the foundation?

MR. ROBERSON: No. No.

MR. GARDNER: You went, you were on the outside --

MR. ROBERSON: I went in the dirt -- yeah, inserted at an angle.

UNIDENTIFIED SPEAKER: Coming from outside?

MR. ROBERSON: Yeah, outside in, at an angle.

MR. NICHOLSON: Right. Okay. And that's the only reading you took under the slab?

MR. ROBERSON: That's the only -- yeah, that's the only one that took.

MR. NICHOLSON: And I don't see, what did you read on the -- or is this accurate?

MR. GARDNER: It said see note 10.

BY MR. NICHOLSON:

Q. Yeah, note 10 is 96 percent. Is that --

A. Yes.

Q. Okay.

A. First initial, reading one.

Q. Okay. Have you been out to similar accident scenes like this?

A. I have.

Q. Have you seen 96 percent under a building slab? Is that normal?

A. Actually this is the only one I ever checked.

Q. Okay. Is it --

MR. GARDNER: You've been on scene but you just had the bar-holed?

MR. ROBERSON: Yeah.

MR. GARDNER: Is that what you're saying?

MR. ROBERSON: Yeah, I mean, that's the only one I actually went up there and bar holed.

BY MR. NICHOLSON:

Q. Well, what'd you think of 96? That sounds really high to me. Is that, was that expected or no?

A. Actually what I -- actually my first, and like I said, this was after we had done -- made the repairs up here.

Q. Oh, this is even after repair?

A. Oh, yeah. This is late --

Q. Okay.

A. -- this is late in the afternoon of that day. Actually, I was wondering did we have a line. Usually there a fuel line or some kind of another line running under the slab.

Q. Yeah. Okay.

A. I just didn't know because of the high reading, and then I monitored it throughout the night.

Q. And what happened? What --

A. It dropped.

Q. To?

A. When I left about 9:00, it was down to about 90.

Q. Oh, it stayed --

A. Yeah.
Q. -- high for quite -- all day?
A. And the next day that was one of the first things I did and it was probably in the mid '80s then.
Q. Okay. So a pretty effective slab at holding that gas there?
A. And there was a lot of gravel in there as well, so that may have something to do with --
Q. There's gravel under the slab?
A. There was gravel, lots of gravel under the slab, so --
Q. What do you mean that has something to do with it?
A. Well, that's just an easy place for that gas to build up and migrate to.
Q. Oh, rise up from --
A. Yeah, rise up.
Q. Okay.
MR. JONES: Well, with the amount of water the fire department was putting on that building, that had precluded the gas from coming up and venting up too. Would that have helped hold it in?
MR. ROBERSON: It could have initially. I think that's why, you know, the whole -- you know, that's one reason we had trouble, you know, locating the leak itself was we couldn't get any readings. We was just going by -- because the water was just, you know, killing it, you know. And as far as this one, you know,

I don't know. I didn't check it till late that afternoon. I don't know if I would've checked it earlier what would it have been, if it had been any different.

BY MR. NICHOLSON:

Q. And I'm just -- then if you were getting 96 percent, did you notify anyone or was there any other action taken?

A. I just monitored it. I notified Gallagher, David Gallagher, but I can't remember if it was that night or -- there was so much going on. He was so --

Q. Yeah.

A. -- you know, everybody pulling at him. You know, I think I it was the next day before I even notified him about it because I just monitored it the rest of the night.

Q. But you were worried there was another line maybe going under there?

A. Yeah, I was kind of -- yeah, you know, that was the first thing that crossed my mind, did we have a line under that slab that we didn't know about? Did they build this on top of a line, you know?

Q. Yeah. Okay. But no one researched that?

A. Not -- well, I mean, I'm sure they -- if they looked at service records, they -- I don't even -- you know, I don't know if they did or not. I think once we found the initial service over here and kind of got the idea of which way it ran, I think we kind of figured then that there wasn't nothing under the -- anything

else under there.

MR. NICHOLSON: Okay. Ravi, you want to --

MR. CHHATRE: Yes.

BY MR. CHHATRE:

Q. This is Ravi, NTSB. I want to ask some follow-up questions and I'm going to start at the slab again. You said you took that first reading was 96 percent, about?

A. Yes.

Q. And later in the afternoon, do you know the -- recall the approximate time? What was the first time you took it?

A. Oh --

Q. If you don't, you don't. But if you have a ballpark figure?

A. It was before you got there, Ravi. What time did you get there? It was -- you got there about 6 that afternoon?

Q. Right.

A. So I'm thinking around 4:30, 5:00 maybe.

Q. Okay.

A. I remember it was already starting to get dark.

Q. Okay. So from 4:30 to 9, it dropped by 6 percent; 96 to 90, roughly. So when you first arrived, did you smell any gas?

A. I did not.

Q. And just for the record, I think, do you want to state your education, training, (indiscernible) training classes, training courses with the company?

A. My training?
Q. Yes.
A. Oh, it's just --
Q. And just another question about like college education, any training you got?
A. Just, you know, in-house training. You know, we go through classes on leak migrations, a leak -- what we call a leak detector class every couple years.
Q. And that's in-house?
A. That's in-house. It's in-house but we have a -- I don't know if the PSC, if they still do it or --
MR. GARDNER: Is it Rod Six (ph.)?
MR. ROBERSON: Yeah.
MR. JONES: Rod Six or Regis (ph.).
MR. ROBERSON: Yeah, Regis. He comes in and teaches it.
BY MR. CHHATRE:
Q. Any NACE, any NACE classes for you?
A. Any what?
Q. NACE certification classes for you?
A. Oh, I guess. I mean, I think that's what that class is, is -- because we get certified on that. I think it's part of OQ too, our operational qualification.
Q. Okay. Not from NACE, per se, it could be go through NACE or --
A. Yeah.

MR. GARDNER: It's not NACE. It's, we --
MR. JONES: No.
MR. GARDNER: -- they do not have NACE training.
MR. CHHATRE: Okay, okay.
MR. ROBERSON: No.
MR. GARDNER: Just the corrosion technicians.
MR. ROBERSON: And we have, you know, we go through our fire school every year. Other than that, just 29½ years of being out here doing it.
BY MR. CHHATRE:
Q. Now with that high reading, did you do any other readings in that slab area, unit 80 or unit 79? I mean that reading's pretty high. I mean, we all agree to that?
A. Yeah.
Q. Did that kind of trigger you take any additional reading around the slab or any other location?
A. It did not. That is the only one that I took, only bar hole.
Q. And did you discuss those readings with anybody, with your crew or who works for you, I guess?
A. Did anybody -- just with David. Now, when I told him, I can't -- it was either late that night or early the next morning when I rechecked it.
Q. So no discussion with Rob Hall or --
A. No.

Q. -- Rob Wall, I mean.

A. Yeah, Rob, yeah. I did talk to Rob about it.

Q. And what was the discussion about? What did you guys discuss?

A. I just let him know that, you know, the reading that I got under the slab.

Q. Okay. And what did he say? Do you recall?

A. He just -- no. No, he didn't really say nothing really, just, you know, really?

Q. And nobody's now getting any additional readings around the slab, is what I was thinking, more like --

A. No, not in -- you know, he was the one -- yeah, he was the one doing on this, which was pretty close to the slab, but not up against it. But no, that is -- I didn't take any more readings beside that.

Q. And you said, you know, you couldn't do bar holes because of water. What the water would have done to the bar holes?

A. Well, we can't use our GMI because it will just suck it full of -- and our GMI is what, you know, our leak detector, which it'll just suck it full of water right off the bat. And I think that's, you know, one of the reasons why I didn't smell gas the whole time is because of the water that was in the ground.

Q. And did you have your unit calibrated before you do the readings?

A. Not necessarily before we did these. We calibrate them once a -- I think once a month.

Q. And when was the last calibration, do you recall? Was it closer to the accident date or -- if you don't recall, you don't recall.

A. I don't recall because it actually wasn't even my leak detector. I don't even know whose device I used. I just got one off of a truck because I don't have one on my truck. So --

Q. You borrowed somebody's?

A. Yes. I just got one off the ground, I'm sure, as I was sitting over there.

Q. But then you used the same detector all through your morning, or you switched detectors?

A. That I probably -- I'm might probably have switched. Like I said, I probably just got -- because I checked it for the next day all day, so I probably just went and got the closest GMI --

Q. Right.

A. -- that I could find.

Q. Okay. And how long did you follow that, I guess the gas concentration under the slab?

A. How long did I monitor it?

Q. Yes.

A. I started, like I said, late that even happening, and I would -- I would say I know all the next day.

Q. Okay. So that would be 18th?

A. Yes. And I don't remember doing it anymore after they obtained --

Q. So the readings on 18th is the last readings?

A. Yeah, probably, yeah, late that afternoon. Because I remember I think my last reading I got, it was down in like the, you know, the 60s, so, you know, I felt comfortable with it. You know, it's airing out.

Q. So the last reading was 60 percent gas?

A. Yeah, it was around --

Q. Around, yeah. Around.

A. -- probably the 60s, 50s. Gosh, it's --

Q. So you know it's dropping?

A. Yeah, I know it's dropping.

Q. I'm going to go back to the repair gas line, repair pipe. Now, your crew does a repair and assesses the damage, corrosion damage?

A. Um-hum.

Q. And that information goes to corrosion technician? Or they are the corrosion technician?

A. No, no, they don't -- they are just the guys that dig up the leak and repair it.

Q. Right.

A. My construction crews. Yeah, it doesn't have anything to do with the corrosion techs.

Q. Okay. But I thought that -- maybe I missed -- had gone out then. Any of my questions might already be asked, and if you did answer, you can simply say it's already on the record. So that'll save you hassle, because I was gone for a while.

A. Yeah.

Q. So your crew does the repairs?

A. Um-hum.

Q. But I thought earlier you said that they assess as moderate corrosion and medium corrosion.

A. Well, and their -- they -- it's their own opinion. And according to what they say on their field orders that they have to fill out, is this moderate corrosion and -- or is it a heavy corrosion or whatever. That's just their opinion on it.

Q. Okay. But, I mean, are they given any training by Alagasco as far as how to assess that --

A. Corrosion?

Q. -- corrosion?

A. Not that I'm aware of. It's just --

Q. Okay. That's fair.

A. Yeah.

Q. I mean, that's fair.

MR. GARDNER: It might be in the OQ training. We could find that out.

MR. ROBERSON: Well, it's, you know, other than -- you know, on a steel pipe, to burn an anode, put an anode on the line

when the find corrosion in a test spot so it can be monitoring it --

BY MR. CHHATRE:

Q. But that's CP, when you're out monitoring CP.

A. Yeah, that's -- but our crews do that also --

Q. Okay.

A. -- install the anodes and stuff. But other than that, that's about all as far as far as that goes.

Q. Well, that's fair. I mean, their job is specific.

A. Right.

Q. So what happens when they see a leak and they identify the leak and then they fix the leak? Does the corrosion technician then get some information or does the corrosion technician talk to them? Is there a communication process that you are aware of?

A. Oh, I would assume that they'll get -- they've got somebody in their department, which is -- I mean, I don't know, that will -- looks at their field reports and pulls the ones out that anodes have been added, test boxes have been added, stuff like that.

Q. But they are not required to send the information to corrosion technicians?

A. No.

Q. Right? Okay.

A. No. No.

Q. Okay. And who do corrosion technicians report to, do you know?

MR. GARDNER: They report -- today they report to Darby Shirley (ph.). At the time of the incident they reported to Milton Chandler, who has since retired.

MR. CHHATRE: So they are under a different management structure?

MR. GARDNER: They're in Mixon Russ's pipeline risk management crew.

MR. CHHATRE: Okay.

MR. GARDNER: And Darby reports to Phillip Heard. But they have geographic -- they have geographic responsibility, but they're not based out of our service center.

MR. CHHATRE: Right.

MR. GARDNER: They're based as a pipeline risk, part of our pipeline risk management group since early 2001.

BY MR. CHHATRE:

Q. So do you know how this information from your crew gets transformed or translated to the GPS or whoever keeps track of the leak survey or -- are you aware of it?

A. I do not know how that information gets transferred to them.

Q. And that's fine.

MR. NICHOLSON: I think Bill told us earlier that the information is put in electronically.

MR. ROBERSON: Yeah. I'm sure they are looking at these field reports or some kind of way.

BY MR. CHHATRE:

Q. With your long career with the company, do you ever recall getting any call from the corrosion technician saying, hey, you know, we saw this report that you guys filed either manually or (indiscernible) electronically that -- tell us more about this corrosion that you guys are calling it serious or moderate? Has that ever happened that you recall?

A. That the corrosion department called? Now, well, I mean, I work with them a lot, but it's usually stuff that they find.

Q. Right.

A. You know, shorts. You know, they're constantly needing -- you know, one of my crews to come out and help them to dig up a main so they can put a line -- put a wire on it because they've got a short, you know, or they see something's not -- their test line is not working.

Q. And that's your job to fix that?

A. Well, yeah. Well, it's their job, but I provide their, the labor for them --

Q. Right.

A. -- the crews to go out and dig up, dig the main up for them. They'll just go out there and they'll show them where to dig and they'll dig it up and let them do what they got to do.

They will -- and other than that, they'll -- some of the corrosion technicians will be in some of our safety meetings just going over the process of installing an anode again, you know, making sure that the crews that are putting them on right and how to run the wires up through the test box and all that.

Q. And so with a leak that is fixed, now, are you required to replace the pipe where the leak is or just put the clamp on? What are the procedures?

A. Just clamp. Just repair.

Q. Just a clamp?

A. Yes.

Q. And so how would your crew know it's a graphitic corrosion or some other forms of corrosion, or how would they know that if they have no formal training?

A. Well, they just know that it's caused by -- that this leak is caused by corrosion.

Q. So they will not know it's graphitic or --

A. Yeah, they won't know any kind of technical names or --

Q. Right.

A. They're just going to know that, you know, this is a corrosion leak is what -- is basically what they'll say.

Q. But in that form -- and maybe Bob sent us that, but I don't remember seeing it. In that form does it say how long the leak is, how big or -- I mean, is it a hole or a crack or --

A. No. They'll put in sometimes in their comments, you

know, just repaired corrosion hole on main, you know, what size main, you know, two and a quarter cast iron.

Q. Okay.

A. They won't go into specifics on how big it was or --

Q. Just a leak?

A. Yeah, just a -- yeah, just a leak.

Q. And would that form contain what the readings were, the percent gas reading when they -- before they dig it or --

A. No.

Q. So really they will not know whether it's a grade 1, grade 2 or grade 3?

A. No. Oh, yes, they know before they go out there whether it's a grade 1 or a grade 2.

Q. Based on what?

A. Mostly all their leaks go out, they're grade 2's anyway because they've done been graded and put on this backlog of leaks. So when they're routed those leaks, I mean, they're already grade 2 leaks. Mostly our grade 1's come in during the day. That day either the -- when Southern Cross, the survey crews, determines it's a grade 1, they call right then and we respond to it then.

Q. Now how -- when you say backlog, what kind of time frame you are looking at? Like couple of months backlog or a --

A. It's about a year.

Q. Years' backlog? Year backlog. Okay.

A. Yeah.

Q. So how would -- and that backlog comes from the survey crew or a --

A. Mostly. It's both. It's mostly survey, but our company crews or maybe servicemen, if they go out to be a first responder, it's an outside leak, you know, they'll do their bar test and determine the, you know, the severity of it. And they'll -- but they'll refer it to us --

Q. Sure.

A. -- and sometimes, you know, going by what they get, I may send an operator out there to check it, to go into a little bit deeper detail with his bar testing and maybe grading it.

MR. GARDNER: Now may I say something real quick? The backlog, Bill, does not imply that you're behind?

MR. ROBERSON: No.

MR. GARDNER: It's only the pending leaks to be repaired?

MR. ROBERSON: Right. It's my -- yes.

MR. GARDNER: The connotation, we say backlog, but we don't mean -- we don't mean it -- we're not behind, right?

MR. ROBERSON: Yeah.

MR. GARDNER: I want to make sure that that's -- my understanding is that doesn't mean --

MR. NICHOLSON: Just means it's a 15-month --

MR. GARDNER: Right. Well, yeah.

MR. NICHOLSON: -- or a 12-month --

MR. GARDNER: It's within the window of repair, but it's not as though --

MR. NICHOLSON: It does sound --

MR. GARDNER: When I think of backlog, I think things I need to catch up on.

MR. ROBERSON: You're backed up on.

MR. CHHATRE: Well, I'm glad you clarified it. To me backlog meaning there are so many of grade 2 leaks that these guys cannot possibly fix those.

MR. ROBERSON: No.

MR. GARDNER: No. That is not the indication. It is a term we use -- a translation would be pending. Is that accurate?

MR. ROBERSON: Yeah, pending leaks, pending log, I guess you would call it. But yeah, that's just what we call it.

BY MR. CHHATRE:

Q. Yeah. Let me get this clarification in my mind. If it is not a work-related backlog, then why they are not fixed? Why do you have to wait for a year for that?

A. Well, we have a year to repair. Once these leaks are turned in, we have a year to repair them.

Q. I understand. That part I understand.

A. Twelve months, not to exceed 15.

MR. GARDNER: They're not considered hazardous.

MR. ROBERSON: They're not considered hazardous. They don't need --

MR. CHHATRE: Well, that part I understand.

MR. ROBERSON: Right.

BY MR. CHHATRE:

Q. But if you have a crew that does nothing but fixes leaks, then you are doing that every day, am I correct?

A. Right.

Q. Well if you're doing that every day, at some time the leak should be finished, unless you got, unless there are so many, that your crew -- you are there working Monday through Monday and cannot fix all those. That's, to me that's a backlog. That's why it will take you a year. Unless you guys end up -- unless you end up doing something else without fixing the leaks --

A. No, I mean, we --

Q. -- takes your time.

A. It may take our crews a whole day just to fix one leak. It may take them 3 days --

Q. I completely understand.

A. -- to pinpoint it.

Q. I understand that.

A. You know --

Q. But that translates to me, then, that you have -- let's say, you have 100 leaks. The survey crew told you and they do a every 3-year survey. A hundred leaks and they tell you they are grade 2, you have 12 months to fix it.

A. Um-hum.

Q. And you guys are doing your way of fixing those leaks. Now, to me if it takes 1 year to fix the last leak, that means you guys have been busy from day 1 until day 365 trying to fix the leaks?

A. Um-hum.

Q. So to me that's a work backlog, not necessarily the priority backlog. Or am I missing something here?

A. I mean, it's just our -- it's just our list of leaks that were found in this certain -- this time frame and we have this time frame to fix them in. Then we move on to the ones that they're finding now and their time frame. It's just a constant never --

Q. I understand.

A. -- ending cycle.

Q. Now it's clear to me. Okay. Now I understand.

Now, does your process require to replace that leak at any time at all? Your procedure-wise? Like, let's say it's a grade 1 leak. Are you required just to clamp it or you are required to cut the pipe and replace it?

A. No, we're required to repair that leak, and if it's with a clamp, if a clamp will do that, repair that leak, stop that leak, then that's all we're required to do.

Q. Okay.

A. Even when we cut them out is when -- say it may be up against a joint or something and, you know, we actually can't get

a clamp, a wraparound on it, or if it's two different sizes and some other fittings that we have won't work, so what we do is we'll temporarily fix it, come back and cut it out later.

Q. So does -- when you fix the leak, do you -- before you fix the leak and after or both, do you do any bar hole testing around that leak?

A. Oh, sure. Yeah. Yeah. We, I mean, we have to do that, you know, the bar test grid to determine the location of the leak to start with, you know. And then after we fix it, you know, depending on the amount of gas readings we got, we'll go back and re-check the bar holes that we already have or put down more to make sure we don't have another leak close to the --

Q. And do you go to nearby structures, inside the structure to see if the gas has gone into the structures, as a procedure?

A. It is depending on, you know, the nature of the call. You know, if it's a call that's a grade 1 that's gas next to the foundation, you know, usually we already know that information before we go out there.

Q. Grade 1 you know?

A. Right. Or if our crew gets out there and, you know, if it's gas in a water meter box, usually the person that called it in has done went the foundation to see. But our crews will go there to check -- pretty close to where the water line goes into the structure, check -- if he hasn't done it, check to make sure that there's no gas at the foundation. High reading leaks, you

know, that are grade 1's, we'll check the structures, you know, simply just double check in case nobody else did, because when they grade them a grade 2, when we get there, there's nobody on the scene. Usually when it's a grade 1, we have somebody standing by till we get there --

Q. Right.

A. -- whether it's Southern Cross or one of our guys. They have --

Q. But that is for grade 1 when there's somebody calling in for gas odor?

A. Right.

Q. I'm just talking about, like, the survey being a grade 2 and grade 3 leaks, when you go and fix those?

A. We don't -- not necessarily --

Q. You don't go necessarily inside the building to see if the gas -- because it could be up to 6 months to a year or 2 month, depending upon your schedule.

A. Yeah.

Q. Has the gas found its way into the building, and there's no procedure to that?

A. Well, no. Not necessarily if it's on the main.

Q. But you go fix also the services lines or you don't?

A. Um-hum.

Q. You -- okay. The service could be close to homes, too, that's why I was thinking.

A. Yeah. I mean, we -- and like I said, it all depends on the nature of the call.

Q. Well, I'm away from the call. I mean, I understand the call.

A. Or they -- or the grade 2 leak, even what Southern Cross has put -- their documentations of what they've put on the order already and where they found the leak.

Q. Okay. But for the survey, grade 2, grade 3 leaks, there is no reason to go inside --

A. Not ever, no.

Q. You guys know where your property or -- basically (indiscernible) the building, business priority may be --

A. Not every time.

Q. Okay. Do you ever?

A. Yes. Yeah.

Q. Can you give me an example of when you did that?

A. A leak on service. If that's the way they've got it writ up, they've got it marked.

Q. And it's grade 2, right?

A. Grade 2, yes. Vegetation survey maybe. You'll see a burnt spot in the yard, you know, you -- they're going to continue to go up the line. It's just -- you know, every one of them's different, you know, but it's not -- I don't think it's, you know, on regular grade 2 that they just go out and work in leaks if they have routed for them that day that they check the foundation, no.

Q. Okay. Now, do you recall any grade 2 leaks that you had to go inside the house or in the -- and I'm talking about the incident location, that development.

A. You're talking about at Gate City?

Q. Yes.

MR. GARDNER: When are you talking about, Ravi?

BY MR. CHHATRE:

Q. I'm talking about, like, if the crew going to repair, to take care of a grade 2 leak in the Gate City area, and you know, he just said that's occasionally they are -- not really that common, but sometimes they might go inside the residence to look for, and I'm just asking if there is a situation --

A. I remember going in two houses there, particular, but they were smelling gas on the inside. I don't remember any that was -- that we were repairing on the outside that I --

Q. That you had gone in.

A. -- going in to check. I do remember going in some that a customers would --

Q. Within different calls, different (indiscernible) of calls?

A. Yeah, it was, yeah, it was basically they were smelling gas inside the building, so --

Q. Right. And once you fix a leak, could be service could be main, do you dig further around that leak or you just fix the leak and -- I mean, what's your criteria to leave that location?

A. It's depending on the bar hole. I mean, we pinpoint it. We usually go -- you know, when we feel like we're on a leak, we go straight down to make the repairs on that leak. And then, depending on the readings, how much much readings we've got, we'll either aerate sometimes if we still got high readings outside the hole that we dug, another bar hole, we may aerate, suck that out and then see if it comes back, you know, to determine if we're going to have any more or was that just in that one.

Q. There is a one location -- I'm going by my memory, so bear with me. But at one location, I believe it was in two patches, the asphalt. They are not next to each other, but very close. So I'm just wondering whether during the repair process, were you able to go -- like, in certain case a technician would say -- for coating, for example, will say go 4 feet on either side if you don't see coating. That way you are good to go.

Now, do you have some criteria in your procedures that says when you go and fix a certain leak, do you need to dig so many feet on either side to make sure that there is no --

A. No.

Q. -- other close-by leak that may continue to leak too?

A. No. We don't --

Q. I'm not saying it will, but maybe --

A. Yeah. We don't have that in any kind of procedure. What you probably saw was this first hole was a -- what we call a dry hole, they missed the leak, and then they dug the second

hole --

Q. Yeah, I would not know because we -- once the asphalt is here and there is no bar hole (indiscernible) --

A. Right. Well, you just saw the two patches close to each other?

Q. I'm just assuming that there were two digs. That's what I'm saying.

A. Yeah. One of them could've been, it could've been -- you know, have been several different. May have been where we cut one of them out and this was our tap hole, our stop-off hole, and the other hole was where we actually cut the pipe. Or it could've been that the first hole they missed the leak, then the second hole they actually found the leak in it.

Q. Or they fixed one leak and 6 months --

A. Or they fix two leaks.

Q. -- 6 months later there are other leaks?

A. Or -- yeah, or they could have fixed, you know, two leaks there, you know. It's hard to say unless you dig it up and see what's --

Q. Sure.

A. -- actually in there. But as far as procedure, no, we -- you know, it's our procedure's to recheck your bar holes and make sure that the reading is going down or we possibility have another leak, you know, in that area right there.

Q. And the last question, if you have a leak with a

clamping already installed and somehow the leak happens to be at the clamp, what typical procedure you will do? What procedure requires you to do?

A. Well, a lot of times we will change that clamp out, put a longer one on there. It could be that, you know, the clamp wasn't quite long enough, it wasn't cleaned good, the pipe wasn't cleaned good when it was put on there, it started back leaking. And then if all else fails, we'll cut that out. We'll cut that part out.

Q. But if you cut that pipe, your procedure requires you to send it to somebody or you just junk it?

A. Usually we just -- we just junk it, throw it in the scrapyard, yeah. We never had a procedure that I know of to send it for testing or anything like that.

Q. Or (indiscernible) clamp on, you know, okay.

A. Yeah.

Q. I guess that's pretty much it for me, and I really appreciate you sharing your experience with me. Thank you so much. If you need a break, let us know. I mean, otherwise --

A. I'm good, yeah.

Q. Okay.

MR. JONES: I don't have any further questions than what I've already asked. I don't have anything other than what I've already asked.

MR. CHHATRE: Okay.

MR. GARDNER: I don't either.

MR. CHHATRE: Do you have any follow-up, Matt?

MR. NICHOLSON: Yeah, I do.

BY MR. NICHOLSON:

Q. So your crew does repairs on pipes where leak surveys have shown leaks?

A. Um-hum.

Q. Did they do the replacement of the pipe at the accident scene on December 17th?

A. They do -- they did not do any of the replacement.

Q. I mean, I'm sorry, did they do the repair?

A. Yes.

Q. Okay.

A. Or my crew did.

Q. They did? How would they have -- how did they assess that pipe, as far as grading the corrosion and -- is there a sheet on that?

A. I don't think that was corrosion. I think it was broke.

Q. Okay.

A. The main was broken, broke in two.

Q. But they would've filled out that same --

A. Yes.

Q. -- assessment sheet?

A. They would've filled it out as the same form and just in their comments they would've put repaired broken main. Probably

would have -- where the corrosion drop down box is, I'm sure there's a -- not -- no corrosion.

MR. GARDNER: You talking about (indiscernible). Have you seen it?

MR. ROBERSON: I haven't seen what their -- the electronic version of it. But I'm going by the paper copies they would, you know, no corrosion was seen when we -- what it used to say when I did it, you know. That would've been either to mark, you know -- or probably put it in their text repaired, two and a quarter broke main with wraparound. So --

BY MR. NICHOLSON:

Q. And that actually leads me to my next question. You can clamp a cracked pipe --

A. Um-hum.

Q. -- as well as a corrosion?

A. We have 360 repair clamps, which go all the way -- which is what we had, and I don't know if you all --

Q. Yeah, I've seen it.

A. -- examined it. That's what we had on it. It's a 360 repair clamp with a rubber in it that goes all the way around the pipe and then you tighten both --

Q. And that's suitable for a circumferential --

A. Yes.

Q. -- crack and a -- or a longitudinal crack?

A. Um-hum.

Q. Okay. You talked earlier about gas in a water box. Can you elaborate a little bit what you -- what does that mean?

A. Well, it may be just -- to be a grade 1 leak, it has to be at least 80 percent LEL in a confined space. A lot of these water boxes may be sitting right on top of our mains.

Q. Well, what are you calling a water -- like a meter box?

A. A meter box.

Q. Oh, okay.

A. Meter box, water box. Yeah, meter box, or a valve box in the street, like, to cut the main off, you know --

Q. Right.

A. -- which are not -- about that big. To me it's not a confined space because you can't get down in it, but you know, we -- that's in part of the laws that, you know, our procedures that call it a confined space.

Q. Okay.

A. So that counts, and if it's got 80 percent or greater LEL in those -- inside the box, which would mean picking the lid up, sticking your probe in there.

Q. So how would the gas get in the water box, is what I'm --

A. Just migration.

Q. Migration?

A. You know, like I said, some of these water boxes, you know, that are, you know, in people's yards are sitting right on

top of our main, you know. If we have a main that's leaking and it just shh right up. That's been dug there before so that gas goes right up --

Q. So a water box is just a piece of pipe that's been shoved vertically into the soil?

A. No, it's actually a -- where the meter's at.

Q. Yeah.

A. Where they read the meters, the water meters at. You know, the valve boxes that are in the street are about that big. They were installed over a valve, you know, and brought up to the top of the asphalt.

Q. So how is the gas getting into the box, I'm trying to figure out, from beneath?

A. Yes. From just gas if they're -- yeah, just travel, migration, you know --

Q. Travels through the soil or is it pulling that annulus along the line like you were talking about?

A. Well, if it's -- more than likely just following the ditch lines in the soil, you know, that it'll -- if it goes -- there's a hollow space there, if it can get to it, that's where it's going to go and --

Q. Collect?

A. -- and see it collect.

Q. Okay. So it sounds like your territory includes Gate City from --

A. It does.

Q. -- previous discussions? So can you just give me a relative measure, is Gate City an area you visit more often than other areas in your --

A. No.

Q. -- territory?

A. Since I have been up here in 2009 as a supervisor, and I worked this area as an operator also, I don't remember a whole lot of trouble, problems in there at all. Because, you know, we have certain areas that you remember more than others, you know, because of certain things that may happen, you know, danger as far as people --

Q. Oh, okay. Oh, sure. Right.

A. -- you know, so --

Q. Okay.

A. I don't, you know, remember us being in there a lot, you know, any problems since I've been back up here as a field supervisor.

Q. So from a leak standpoint, it's not an area that you guys visit more often?

A. Well, I mean, not --

Q. Okay.

A. I'm sure not more than any other, I don't think.

Q. Have you worked in other divisions? So you're Birmingham now, is that what you're --

A. I'm Birmingham now, yes. I spent most of my time in what we call the WOC, which is part of Birmingham, but it's a different satellite. That's my area.

MR. GARDNER: Okay, West -- the W --

MR. ROBERSON: Western.

MR. GARDNER: -- stands for Western.

MR. ROBERSON: Yeah, the Western --

MR. GARDNER: Western Operation Center, WOC.

MR. ROBERSON: Yeah.

BY MR. NICHOLSON:

Q. Was that less --

MR. GARDNER: West of Birmingham.

BY MR. NICHOLSON:

Q. -- work or was that -- it was also a cast iron system up there?

A. It is. It's still part cast iron. It's actually just closer to my house.

Q. Okay.

A. Driving purposes, you know.

Q. But frequency of repairs, backlog wasn't a big difference?

A. No, they -- uh-uh, it's very similar to ours, to Metro's.

Q. Okay. And I think you already answered this question, but you, when you first show up after being told it's a grade 2,

your crew takes bar test readings to confirm it?

A. Yeah, they bar test -- well, they're not so much worried about the grade of the leakage. They're out there to repair the leak. No matter what it is, they start bar testing.

Q. So it's not about migration? It's really about locating --

A. It's about pinpointing.

Q. Okay.

A. Finding the leak.

Q. And these reports, these assessment reports that are done in the field, who gets those? Who do those go to, do you know?

A. Not right off -- I mean --

Q. Okay.

A. -- not really.

Q. Okay. That's all I got.

MR. NICHOLSON: Ravi, do you want to --

MR. CHHATRE: Just a quick follow-up questions. This is Ravi again.

BY MR. CHHATRE:

Q. Since the accident, so do you guys have any what I call lessons learned meeting or just to analyze what happened or -- with the whole process of bar hole testing, you know, this incident particularly? Do you guys ever go back and looked at your past data, meet, and --

A. On this particular incident or just in general?
Q. Yeah -- no, after this incident?
A. After this incident?
Q. Do you guys have any sort of --
A. Any -- okay -- did anything coming out of this?
Q. -- (indiscernible) or any meeting to discuss what happened here, what you could have done, could not have done? Or any meeting at all?
A. Not really. You're talking about maybe with my crews or just any meeting?
Q. No, I mean, officially Alagasco as a company, did you guys have any meeting, you know, finding out anybody as to what they found, what they learned, what the (indiscernible) or anything like that?
A. No, not that I -- because -- not, not really.
Q. And then do you have any meeting with your crew as to what their finding were that day or after the accident?
A. None other than just the documentation that we're -- you know, we started documenting, you know, each bar hole in the readings. It's about it.
Q. And when you go for fixing these leaks, to pinpoint, do you pretty much just do the bar hole on the gas line itself or you do, like, a side line?
A. Mainly just on the bar -- on the line itself.
Q. Itself, okay.

A. Farthest we'll -- we may move off to the side of it on both sides, staggering, you know, the bar holes. No, we don't do a grids type search on every leak.

Q. No bar holing near the buildings either?

A. Only on grade 1.

Q. No, but I mean, I'm -- grade 1 completely different approach and different --

A. Yes.

Q. -- procedure.

A. Grade 2's --

Q. But grade 2 or grade 3 do you -- when you go to fix a leak, were you able to do any testing on -- foundation of the building?

A. Unless the crew that's out there doing the assessment comes -- runs across something that he felt that -- that he feels like he might need to go check.

Q. But not any procedure?

A. Not any procedure, no.

Q. So you, so that kind of completes my last question. So you really don't know how far the gas is migrating on either side of the pipeline then?

A. Our crews, when they bar test, they should -- they bar test until they're out of the gas in the --

Q. No, but that's along the pipeline?

A. Right.

Q. Not 90 degrees to pipeline?
A. Right. Yeah, I mean bar testing out there doesn't help us --
Q. Look at the leak?
A. -- pinpoint the leak at all.
Q. I understand. Okay. Thank you so much. And the only reason we kept you so long is that you have so much to offer. Sorry. Sorry to keep you that long.
A. No. I mean, it's --
MR. NICHOLSON: Well, we're not quite finished yet.
Wallace, did you have anything further on --
MR. JONES: Oh, no. Not right now.
MR. NICHOLSON: Bob?
MR. GARDNER: I'm good. Thank you.
BY MR. NICHOLSON:
Q. And I just want to follow up kind of on that line of questioning, because you did mention earlier grade 3 leaks don't require immediate repair or even 12-month repair. They just have to be monitored?
A. Right. We have to -- every 6 months, we monitor them.
Q. Oh, it's every 6 months?
A. Yeah, to keep --
Q. And who does that? You?
A. Usually like our operators, our first responders. No, I don't --

Q. Okay.

A. -- personally. They are routed to first -- you know, well, to our operators, which are in pickup trucks, you know, that do that, do the rechecks, 7-day rechecks, you know, after we make repairs. You know, they'll go and do -- monitor these grade 3's also.

Q. Okay. And what makes a grade 3? What's the requirement for a grade 3 leak as far as LEL levels or?

A. Oh, gosh, you know, it's --

MR. GARDNER: It's in our --

MR. ROBERSON: Yeah. And I don't, you know, and grade 3's are just something that we went back to. Usually we repaired everything.

BY MR. NICHOLSON:

Q. Okay.

A. You know, we didn't have a grade 3. Usually it was grade 1 or 2.

Q. Okay.

A. We just repaired it all. And honestly, I don't -- you know, we probably wouldn't have a hand full of grade 3's right now because there are -- they are in the same -- and I know you all don't like this term -- backlog as our grade 2's.

Q. Right. Okay.

A. And we just work them as we go down the leaks.

Q. They're just lower on the list then?

A. Right. Well, they're -- actually, I think they're put in with the same time frame, so they're -- if they have their time that they were found, they're in there.

Q. Okay.

MR. CHHATRE: Thank you so much.

MR. NICHOLSON: That's all we got.

MR. GARDNER: Thank you, Bill.

MR. NICHOLSON: I appreciate it, Bill.

MR. ROBERSON: Well --

MR. JONES: Appreciate it, Bill.

MR. NICHOLSON: We'll go off the record at this point.

(Whereupon, the interview was concluded.)

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 Bill Roberson
DOCKET NUMBER:	DCA-14-MP-001
PLACE:	Birmingham, Alabama
DATE:	July 14, 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.

_____

Karen Stockhausen
Transcriber