

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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HOUSE EXPLOSION IN FIRESTONE,
COLORADO, APRIL 17, 2017

Accident No.: DCA17FP005

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Interview of: RYAN McMAHAN

Frederick-Firestone Fire Protection
District Business & Education
Center
Longmont, Colorado

Saturday,
May 13, 2017

APPEARANCES:

RAVI CHHATRE, Investigator in Charge
National Transportation Safety Board

GBENGA AJIBOYA, General Engineer
Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration
(PHMSA)

MICHAEL LEONARD, Quality Assurance Professional
Colorado Oil & Gas Conservation Commission

DAVID PUC CETTI, Fire Investigator
Frederick-Firestone Fire Protection District

DAVID McBRIDE, Vice President of Health, Safety &
Environment
Andarko Petroleum Corporation

SEAN URVAN, Senior Counsel
Anadarko Petroleum Company

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I N T E R V I E W

1
2 MR. CHHATRE: Good morning. Today is Saturday, May 13, 2017.
3 We are currently at Frederick-Firestone Fire Protection District's
4 Business and Education Center, located at 8426 Kosmerl Place,
5 Longmont, Colorado. We are meeting regarding the investigation of
6 explosion of a house located at 6312 Twilight Avenue, Firestone,
7 Colorado, that occurred on April 17, 2017.

8 My name is Ravi Chhatre. I am with National Transportation
9 Safety Board, located in Washington, D.C., and I am investigator
10 in charge of this accident. The NTSB investigation number for
11 this accident is DCA17FP003.

12 I would like to inform everyone present in this room that we
13 are recording this interview and we may transcribe it at a later
14 date. Transcripts will be provided directly to the interviewee
15 for identifying any typographical errors. The transcripts may be
16 posted in NTSB's public docket, and the reason I am saying that is
17 that means anybody can see it.

18 Also, I would like to inform Mr. Ryan McMahan that you are
19 permitted to have one other person present with you during the
20 interview. This is a person of your choice -- your supervisor,
21 friend, family member or, if you choose, no one at all. So please
22 state for the record your full name, spelling of your name,
23 organization you work for and your title, business contact
24 information such as mailing address, phone, email, and whom you
25 have chosen to be present with you during the interview.

1 MR. McMAHAN: My name is Ryan McMahan, spelling R-y-a-n, last
2 name McMahan, M-c-M-a-h-a-n. I work for Anadarko Petroleum. I'm
3 a construction foreman. Address is 501 North Division Boulevard,
4 Platteville, Colorado.

5 MR. CHHATRE: Zip? That's okay.

6 MR. McMAHAN: 80650, I believe.

7 MR. CHHATRE: Okay. Any email, phone number?

8 MR. McMAHAN: Email address is [REDACTED]
[REDACTED].

10 MR. CHHATRE: Okay. And whom you have chosen to be with you
11 during the interview?

12 MR. URVAN: Sean Urvan, S-e-a-n, U-r-v-a-n.

13 MR. CHHATRE: Thank you.

14 Now I would like to go around and have each person introduce
15 themselves. Please state your name, spelling of your name, your
16 title, and the organization that you represent, and your business
17 contact information, starting from my left.

18 MR. AJIBOYA: My name is Gbenga Ajiboya. I'm with U.S. DOT,
19 PHMSA. I'm an engineer. And the office is in [REDACTED], Colorado.
20 My contact cellphone number is [REDACTED]. My email is [REDACTED]
[REDACTED]. And that is spelled G-b-e-n-g-a, A-
22 j-i-b-o-y-a.

23 MR. LEONARD: Mike Leonard. First name, common spelling.
24 Last name, L-e-o-n-a-r-d. I'm with the Colorado Oil and Gas
25 Conservation Commission as a quality assurance professional.

1 Email address is [REDACTED].

2 Cellphone number, [REDACTED].

3 MR. PUCETTI: Dave Puccetti, Frederick-Firestone Fire
4 Protection District, Division Chief Fire Marshal, lead
5 investigator. Contact number is [REDACTED]. Email is
6 [REDACTED].

7 MR. URVAN: Sean Urvan. Again, S-e-a-n, U-r-v-a-n. I am
8 senior counsel with Anadarko Petroleum Corporation. Phone number,
9 [REDACTED]. And email, [REDACTED].

10 MR. McBRIDE: I'm David McBride. It's M-c-b-r-i-d-e. I'm
11 Vice President of Health, Safety and Environment for Anadarko
12 Petroleum. My phone number is [REDACTED]. And email is
13 [REDACTED].

14 MR. CHHATRE: Thank you for that.

15 INTERVIEW OF RYAN McMAHAN

16 BY MR. CHHATRE:

17 Q. Mr. McMahan, please tell us for the record your -- education,
18 background, any past experience related to your work, and how long
19 you have been with the company?

20 A. So I'm high school graduate, spent some time in college, did
21 not graduate. Started in the oil and gas industry in late 2002 as
22 a roustabout hand, and did flow back services for the company I
23 worked for for a while, a couple of years, probably 3, 4 years
24 flow back services.

25 Started with Anadarko in 2008 as a new facility construction

1 supervisor. I'd help build the facilities and supervise the work
2 that was happening in the field. Believe it was in 2013 when I
3 got my current position as LOE construction foreman.

4 Q. Okay. And is your job OQ, operator qualification job or
5 you're in management?

6 A. I'm a management for --

7 Q. Okay.

8 A. -- a group of people.

9 Q. Okay. So tell me your responsibilities as a construction
10 foreman. What do you do every day and your work hours?

11 A. So typically, I get to the office about between 6:00 and 6:30
12 in the morning and work until 5:00 to 5:30 in the evening. I got
13 direct reports that they watch the physical workout and on
14 location, and I just make sure that they're taking care of their
15 safety protocols and help them get their projects started and
16 going through their process hazard analysis, and all that kind of
17 stuff, to make sure that we're doing what we need to do.

18 I do pretty much any maintenance. From the time the facility
19 hits first production, anything that needs repaired, replaced on
20 the facility, that's what my group does.

21 Q. Okay. So is it for the entire region, the entire
22 (indiscernible) -- what are your regional assignment?

23 A. Just Wattenberg. So this Platteville --

24 Q. Spell it for me?

25 A. Wattenberg.

1 Q. Okay.

2 A. W-a-t-t-e-n-b-e-r-g.

3 Q. Okay. Okay. And how many wells or facilities are in that
4 area, in your responsibilities?

5 A. I don't know the total number.

6 Q. Okay. Okay. Do you have any approximation? I mean, is it
7 hundreds, thousands? I mean, if you don't know, you don't know.

8 A. Yeah, I don't know.

9 Q. That's fine. Now, you said new construction. What do you do
10 in the new construction?

11 A. So they would, when I worked for new construction, we built
12 the facilities that -- so if they'd came and drilled a new well,
13 we built the production facility for that new drill.

14 Q. And that entails?

15 A. The production facility, so setting the tanks, the
16 separators, building the, fencing the berm, running the lines,
17 that kind of stuff.

18 Q. Okay. And are you still involved in doing that?

19 A. No.

20 Q. No. Okay. Now, for your crew, how do they get assignment
21 from you?

22 A. So if something fails, we got a system that we use through
23 SAP that the production foreman create a work order through SAP.
24 That work order then gets sent to my planner group, NSAP, so I got
25 a list of work orders in there. Myself and my team, we go through

1 there and pull those recorders. If I need land clearance, we'll
2 start the land clearance process, start the environmental
3 clearance process and making sure that we're clear of any avian
4 issues or wetland issues and that kind of stuff.

5 We get our land clearance, we get our environmental clearance
6 and then we delegate to a construction contractor to go perform
7 the work, and we set up a time, you know, when we can go out there
8 and do that said work and then complete the job.

9 Q. So you don't have your own crew that goes and does a physical
10 repair? You hire the contractors?

11 A. Yes.

12 Q. Always?

13 A. Yeah.

14 Q. And how do you ensure the quality, or qualifications of those
15 contractors? What is the process for that?

16 A. Most of the contractors that we have working for us have been
17 working for us for years and we've gotten a good group with them.
18 They've all been through -- I can't remember -- safe land
19 training, which is a basic training for working in the field.

20 Q. So does the company give them training, the contractor
21 employees, or they get the training from their company?

22 A. They get -- from their company.

23 Q. Their company? And how do you know that the contractor is
24 getting adequate training?

25 A. We require them to have a safe land card prior to ever

1 stepping on the location.

2 Q. Do you evaluate their program, training program? Do you have
3 a copy of their training program for different contractors?

4 A. Our safety department does. I do not.

5 Q. Okay. So somebody in the company does?

6 A. Yes.

7 Q. Okay. And do the contractors report directly to you, or they
8 report to somebody else, if the work is in your area?

9 A. Directly to me.

10 Q. Report to you. And what is the process for making sure the
11 work is complete and that whatever you asked them is done right?

12 A. We got a PSSR process, which is a pre-startup review.
13 Everybody that was involved with the process, or the project comes
14 out and signs off that we built what we said we were going to
15 build.

16 Q. Okay. And on Anadarko's side, who goes and confirm that,
17 yes, they did the paperwork, but indeed it is done right? PSSR
18 process involves your, I mean, the Anadarko employee and the
19 contractor or --

20 A. Correct.

21 Q. Okay.

22 A. Well, not the contractor. It could be the facility engineer
23 that designed how we want to build this, myself or one of my
24 construction guys that I have out supervising the project. And
25 the production foreman, the person that's going to be taking

1 ownership of the work that I completed, they would sign off on
2 that PSSR.

3 Q. Would sign off on that?

4 A. Yup.

5 Q. So I'm going to go back to April 17th, the day of the
6 accident. What's your involvement in that, on April 17th? Were
7 you involved or you're not involved on that date?

8 A. April 17th, I don't believe I was very involved.

9 Q. Okay. So when you got involved -- let me back up. Were you
10 involved at all in that accident?

11 A. As the cleanup and --

12 Q. (Indiscernible) whatever your capacity was from Anadarko's
13 side. Did you do any work or did you --

14 A. Yeah. So I got a phone call from Brett Schisler (ph.), and I
15 don't know what time it was and or if it's, I think it was on the
16 18th, I believe. My days are kind of foggy right now.

17 Q. I understand.

18 A. On the 18th to come out and help. He needed help. I mean,
19 were going to dig up and trying to figure out what we had going
20 on. That's all I knew at that time.

21 When I showed up on location, they were in the process of
22 pressure testing the flow line from the well to the separator and
23 I just helped whatever the fire department or my supervisor
24 instructed me to do, managing the crews, making sure that we were,
25 if we were excavating, that we were doing it in a safe manner,

1 coordinating the hydro-trucks and getting the hydro-trucks and the
2 rest of our crews out there. Any personnel that were around the
3 area while we were doing any said work, made sure that everybody
4 had the proper PPE on and that nobody was in the line of fire, and
5 that kind of stuff.

6 Q. Okay. And how long you stayed on the hydro-test?

7 A. They were completing the hydro-test when I showed up, and
8 that's when they were de-pressuring the hydro-test. That process
9 happened prior to me arriving on location.

10 Q. Okay. So then what did you do that day? I mean, I guess
11 that -- (indiscernible) understand. Do you do any digging in that
12 area that day? And let me -- when I say you, I mean, your
13 contractor, your crew, whoever?

14 A. Yeah. I think we did some hydro-vac and trying to evaluate
15 where the lines were, and we exposed down where the current line
16 was and the old abandoned lines came through, got those exposed.
17 And then we started our hydro-vac process, going up to the
18 foundation.

19 Q. Okay. And do you recall what you saw when -- were you
20 watching that operation or --

21 A. Um-hum.

22 Q. So walk me through what you saw in the whole process.

23 A. The entire thing? So the first time we day-lighted was we
24 day-lighted the existing flow line that was in service, going from
25 well to separator, and got that exposed. Directly underneath

1 that, there was a 2-inch line, two 2-inch lines, and I believe at
2 that time we spotted one 1-inch line.

3 Then we came back up into the backyard, and I believe that
4 was on the next day that we got up into that process. We had to
5 remove some debris. We had to remove part of the patio and got
6 that out of the way, and then we started hydro-vacing the rest of
7 the way up, chasing that line from the back fence up to the
8 foundation.

9 When we got it exposed up there, that's when we found the
10 open ends of the two 2-inch and the 1-inch.

11 Q. So you saw (indiscernible) yourself?

12 A. Um-hum.

13 Q. Okay. Can you describe me, if you remember, how they look
14 like?

15 A. It was just black tape. And the ends, there was nothing on
16 the end. It was just --

17 Q. You saw three open-ended pipes. Did you smell anything at
18 that time?

19 A. Yes. It smelled like mercaptan, is what we were smelling,
20 and we kept, we shut down the project a couple times and kept
21 doing a lot of gas sampling and monitoring to make sure that we
22 were in a safe environment to continue working.

23 Q. Have you smelled mercaptan before?

24 A. Yeah, I believe, yes, I believe I have.

25 Q. Okay. And did you smell anything else, besides mercaptan?

1 A. No, I did not.

2 Q. Okay. Then what happened?

3 A. I believe that day, after we got to that spot, we shut that
4 project down for that day, reconvene, and then we waited for
5 instruction from the fire department to tell us what to do
6 forward.

7 Q. Did you had to put any shoring or any support during that
8 excavation?

9 A. Yes. So the fire department, we sloped off our excavation --

10 Q. Per the protocol of that, whatever your protocol is for
11 excavation?

12 A. Yeah. And we didn't have anybody down in the excavation.
13 And when we got up in there, they sent a ladder down. The top
14 part of the excavation was wide. They sent a ladder down there.
15 One of the gentleman from the fire department hooked a strap, I
16 mean, like a tie-down strap around the 1-inch poly line, and then
17 we pulled that up out of there. And then the rest of the
18 excavation closed up and then it was safe to work on that line.

19 Q. Did anybody go in the pit to put that, whatever that belt or
20 -- what you had around that?

21 A. All the way down into it? No.

22 Q. Okay.

23 A. So we were pretty much able to lasso it. And then they had
24 the fire hook. I don't know what they call it, but it's got the
25 grabble on the end of it --

1 UNIDENTIFIED SPEAKER: A closet hook -- (indiscernible)
2 closet hook.

3 MR. McMAHAN: Pipe-hold --

4 BY MR. CHHATRE:

5 Q. How big was the excavation, do you recall?

6 A. I'd say 18 inches wide, 22 inches wide.

7 Q. Okay. And how deep?

8 A. I think we measured about 7 feet.

9 Q. Okay. So it's not wide at all?

10 A. Um-um.

11 Q. Okay. But does your procedure require do wider or --

12 A. If I was going to have anybody down in the excavation,
13 absolutely.

14 Q. Okay.

15 A. But beings that we didn't have --

16 Q. But (indiscernible) not to send anybody in there. Okay.

17 A. Yeah. Correct.

18 Q. Yeah. I'm (indiscernible). And what was your next
19 assignment at the scene?

20 A. I believe the next day, and I don't know which day it was,
21 was when we came up into where the two abandoned lines merged
22 together, because we only saw the one 1-inch line up at the house.
23 We had to remove -- we started doing some more day-lighting right
24 at the sidewalk.

25 There was still only one 1-inch line at that point, so we had

1 to keep coming back, trying to find a T where the 1-inch lines
2 connected together. We had to remove two parking spots of asphalt
3 and the curbing, get that out, and we hydro-vaced down, day-light
4 our line, found where the 1-inch lines connected.

5 We had to then shore those excavations out, set up a safety
6 gate, anybody down in there to operate and work on that line.

7 Once that was done, we worked with the fire department and
8 the police department to run pressure from the -- I believe we ran
9 pressure from the air compressor -- or no. We hooked a hydro-vac
10 on the line that was up at the house, sucked air on it and
11 verified that the lines were where we thought they were.

12 Once that was performed, then we -- and the excavation was
13 safe, we went down in there, cut that section out and verified
14 again that that was, installed plug, pressure tested that line,
15 then try and pressure testing the line going over to the Oak
16 Meadows, where that T continued in that direction.

17 I was not able to get that line to hold test. We were
18 losing, I think we only took it to 5 pounds, and we pressure test
19 to 5 pounds, and then drop back down to 3 pounds.

20 Q. Do you remember how long it took to do that?

21 A. To drop down the --

22 Q. Right. I mean, if you don't remember, that's fine, but --

23 A. Yeah, I don't remember. It didn't -- not very long, though -
24 -

25 Q. Very long. Okay. Very quickly it comes down?

1 A. Yeah, it -- I wouldn't say very quickly. I mean, it would
2 pressure up and then it would just --

3 Q. Slowly come down?

4 A. -- slowly decrease, yes.

5 Q. And do you (indiscernible) getting up to 5 pounds?

6 A. It didn't seem very hard, no.

7 Q. Okay. But you did participate in that testing that, whatever
8 they asked --

9 A. Yes.

10 Q. -- you to do, you did it?

11 A. Yes. And we did that testing with nitrogen.

12 Q. Okay.

13 A. Next course of action was to go up to Oak Meadows, and we had
14 to day-light that line over there with the hydro-vac. We got it
15 spotted, figured out where it was at, and then we had to come back
16 in and excavate that trench out to where we could get down in
17 there and safely work.

18 To get that line cut apart, we installed a poly transition at
19 that point, and then pressure tested from where we cut it over in
20 the parking lot, up to that point, and ran it to 5 pounds and it
21 handled pressure.

22 Q. And did you smell any gas odor?

23 A. I don't remember smelling a gas odor at that time.

24 Q. Okay. In the first hydro test, do you remember smelling any
25 odor at all?

1 A. No.

2 Q. Okay. And what are your last assignment at the accident
3 scene?

4 A. Well, my last assignment? I was over there yesterday because
5 they were installing some monitoring wells and I needed to install
6 fencing and material to protect the public from that.

7 Q. And did you smell anything at that time?

8 A. No, sir.

9 Q. Okay. And that's all I have. Thank you very much.

10 BY MR. AJIBOYA:

11 Q. Yeah, this is Gbenga from PHMSA. Please, can you walk me
12 through explaining how mercaptan smell?

13 A. Kind of like rotten eggs.

14 Q. Rotten eggs? And what does that mean? I -- if I smell
15 mercaptan, what should I, what should be the next thing I should
16 be thinking about?

17 A. Checking to make sure that you don't have any gases or any
18 flammable stuff present and that we all, everybody was wearing the
19 monitors and that kind of stuff.

20 Q. And where could mercaptan, where could it come from? What
21 could be the possible source of it? It's the -- whatever smells
22 like that?

23 A. So it smells like sulfur, but so, they put mercaptan in gas
24 to give an indication that there is gas present and -- so that
25 you're not in that area.

1 Q. So if your gas is not odorized, can it smell like that?

2 A. What's that?

3 Q. If your gas is not odorized, can it smell like that? Does
4 production gas, without adding odorization to it, can it smell
5 like mercaptan?

6 A. I suppose it could. I've never smelled natural gas that
7 smelled like the smell that I smelled on location that day.

8 Q. So maybe I should back up my question. I know the odorized
9 gas, when it's produced, if you smell odorized, natural gas really
10 does not have a smell. So can you differentiate between -- have
11 you smelled a cooking gas before?

12 A. A what gas?

13 Q. So have you smelled a gas from the store, from the house,
14 when it's, like, consumer gas?

15 A. Oh, I'm sure I have.

16 Q. So you know what it smells like. Does that smell, is there a
17 connection to what you smell when the thing was opened?

18 A. Yes.

19 Q. Okay. That is the end of my questioning.

20 MR. LEONARD: Okay. Do you recall going over to the well to
21 the west --

22 MR. CHHATRE: Identify yourself.

23 BY MR. LEONARD:

24 Q. Oh, I'm sorry. This is Mike Leonard. I do it every time.

25 Do you recall going to the well to the west during the 1-inch

1 testing and putting bag over that well?

2 A. Yes.

3 Q. Okay. Was there any indication of pressure at that 1-inch?

4 A. No.

5 Q. And you never, other than the excavation at the house, you
6 never smelled any gas or had any meters go off in the other
7 excavations?

8 A. Correct.

9 Q. Okay. And I kind of need to get back to this mercaptan
10 thing. Are you sure it was mercaptan or could it have been a
11 large concentration of production gas?

12 A. I don't know.

13 Q. You don't know? Okay. Not a problem.

14 BY MR. PUC CETTI:

15 Q. Dave Puccetti, Frederick-Firestone Fire. I've got one
16 question too. So you've been around the construction of a lot of
17 wells, so and a lot of product, processed product. When you guys
18 first got through the end of the line, that odor that you smelled,
19 is that other odors that you smelled at other production
20 facilities?

21 A. No.

22 Q. Okay. Thanks.

23 MR. McBRIDE: I don't have any questions.

24 MR. CHHATRE: Okay. Anybody have any follow-up questions?

25 BY MR. AJIBOYA:

1 Q. This is Gbenga again. I'm just curious with the smell.
2 That's, you can see, I'm -- the smell is one thing and if you can
3 make a suggestion to me, if you can assume, for example, with that
4 kind of smell, what kind of gas do you think would smell like
5 that?

6 A. I'd say gas that's coming, that they use on, like, a furnace
7 or in a house or something like that.

8 Q. Okay.

9 MR. CHHATRE: No more questions?

10 MR. AJIBOYA: No more.

11 MR. PUC CETTI: Actually, I have one more.

12 MR. CHHATRE: Sure. Go ahead.

13 MR. PUC CETTI: So --

14 MR. CHHATRE: Identify.

15 BY MR. PUC CETTI:

16 Q. I'm sorry. Dave Puccetti. Again, Frederick-Firestone Fire.
17 So we know that mercaptan, it's used to odorize gas so we can find
18 it. What's the proper response to you finding gas that's odorized
19 with mercaptan? What do you know as to be a proper response?

20 A. To leave the scene or make sure that -- everybody started
21 checking monitors to make sure they were safe, our LEL (ph.) was
22 in a safe position.

23 Q. Okay. So when you started smelling this odor of mercaptan,
24 would you not notify the crew that was there to start air
25 monitoring and immediately evacuate?

1 A. We did. We stopped everybody, because we stopped, we shut
2 down the hydro-vac and backed everybody off. That's when we got
3 safety involved. They came in, they did testing and everybody had
4 their -- I don't know what they call those air monitors, but they
5 were sticking those around, everybody's LEL was in a safe
6 situation.

7 Q. Okay. Thanks.

8 MR. CHHATRE: Okay.

9 MR. AJIBOYA: No questions.

10 MR. CHHATRE: If no more questions, thank you so much for
11 coming on a weekend. I know it's a hardship and I appreciate your
12 help in the investigation. Thank you so much.

13 MR. LEONARD: Thank you.

14 MR. CHHATRE: Off the record.

15 MR. McMAHAN: Thank you very much.

16 (Whereupon, the interview was concluded.)
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CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD


IN THE MATTER OF: HOUSE EXPLOSION IN FIRESTONE,
 COLORADO, APRIL 17, 2017
 Interview of Ryan McMahan

ACCIDENT NUMBER: DCA17FP005

PLACE: Longmont, Colorado

DATE: May 13, 2017

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