



**SARGENT'S
COURT
REPORTING**

Quality Work. Quality People.

Transcript of the Testimony of Matthew Walker

Date: September 9, 2010

Case:

Printed On: September 14, 2010

Sargent's Court Reporting Services, Inc.

Phone: 814-536-8908

Fax: 814-536-4968

Email: schedule@sargents.com

Internet: www.sargents.com

CONFIDENTIAL STATEMENT UNDER OATH

OF

MATTHEW WALKER

taken pursuant to Notice by Alison Salyards, a Court Reporter and Notary Public in and for the State of West Virginia, at The National Mine Health & Safety Academy, 1301 Airport Road, Room C-137, Beaver, West Virginia, on Thursday, September 9, 2010, beginning at 3:40 p.m.

Any reproduction of this transcript is prohibited without authorization by the certifying agency.

1 A P P E A R A N C E S

2

3 POLLYANNA HAMPTON, ESQUIRE

4 U.S. Department of Labor

5 Office of the Regional Solicitor

6 1100 Wilson Boulevard

7 22nd Floor West

8 Arlington, VA 22209-2247

9

10 BARRY KOERBER, ESQUIRE

11 West Virginia Office of Miners' Health,

12 Safety and Training

13 1615 Washington Street East

14 Charleston, WV 25311

15

16 TERRY FARLEY

17 West Virginia Office of Miners' Health,

18 Safety and Training

19 1615 Washington Street East

20 Charleston, WV 25311

21

22 ERIK SHERER

23 Mine Safety and Health Administration

24 1100 Wilson Boulevard

25 Arlington, VA 22209-3939

1 A P P E A R A N C E S (cont.)

2

3 PATRICK C. MCGINLEY

4 West Virginia Independent Investigation

5 West Virginia University College of Law

6 P.O. Box 6130

7 Morgantown, WV 26506-6130

8

9 JOHN O'BRIEN

10 Safety Inspector

11 West Virginia Office of Miners' Health,

12 Safety and Training

13 Welch Regional Office

14 891 Stewart Street

15 Welch, WV 24801-2311

16

17 CHRISTOPHER J. SEARS, ESQUIRE

18 Shuman, McCuskey & Slicer, PLLC

19 1411 Virginia Street East

20 Suite 200 (25301)

21 P.O. Box 3953

22 Charleston, WV 25339

23 COUNSEL FOR MR. WALKER

24

25

A P P E A R A N C E S (cont.)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

ROBERT H. AKERS, ESQUIRE
Allen, Guthrie & Thomas, PLLC
500 Lee Street, East
Suite 800
Charleston, WV 25301

COUNSEL FOR PERFORMANCE COAL

I N D E X

1		
2		
3	OPENING STATEMENT	
4	By Attorney Hampton	8
5	DISCUSSION AMONG PARTIES	9 - 12
6	CONTINUED OPENING STATEMENT	
7	By Attorney Hampton	12 - 16
8	STATEMENT	
9	By Mr. Farley	16 - 17
10	WITNESS: MATTHEW WALKER	
11	EXAMINATION	
12	By Mr. Sherer	17 - 41
13	EXAMINATION	
14	By Mr. Farley	41 - 48
15	EXAMINATION	
16	By Attorney Hampton	48 - 49
17	RE-EXAMINATION	
18	By Mr. Farley	49 - 50
19	EXAMINATION	
20	By Mr. McGinley	50 - 141
21	RE-EXAMINATION	
22	By Mr. Sherer	142 - 149
23	RE-EXAMINATION	
24	By Attorney Hampton	150 - 153
25		

I N D E X (cont.)

1		
2		
3	RE-EXAMINATION	
4	By Mr. McGinley	153 - 158
5	RE-EXAMINATION	
6	By Mr. Sherer	158
7	CLOSING STATEMENT	
8	By Attorney Hampton	158 - 159
9	DISCUSSION AMONG PARTIES	159 - 160
10	CERTIFICATE	161
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

EXHIBIT PAGE

PAGE

NUMBER

DESCRIPTION

IDENTIFIED

One

Subpoena

11*

Two

Return receipt

11*

Three

Regulations

84*

* Exhibit not attached

P R O C E E D I N G S

ATTORNEY HAMPTON:

My name is Pollyanna Hampton. Today is September 9th, 2010, and I am with the Office of the Solicitor, U.S. Department of Labor. With me here is Erik Sherer. He is an accident investigator with the Mine Safety and Health Administration, MSHA, an agency of the United States Department of Labor. And also present at the table are several people from the State of West Virginia, and I ask that they now state their appearance for the record.

MR. FARLEY:

I'm Terry Farley, with the West Virginia Office of Miners' Health, Safety and Training.

MR. O'BRIEN:

John O'Brien, with the Office of Miners' Health, Safety and Training.

ATTORNEY KOERBER:

Barry Koerber, Assistant Attorney General, assigned to represent the West Virginia Office of Miners' Health, Safety and Training.

MR. MCGINLEY:

Patrick McGinley, with the Governor's independent investigation team.

1 -----

2 MATTHEW WALKER, HAVING FIRST BEEN DULY SWORN,
3 TESTIFIED AS FOLLOWS:

4 -----

5 ATTORNEY KOERBER:

6 Would you please state your full name for
7 the record and spell your last name?

8 A. Matthew Scott Walker, W-A-L-K-E-R.

9 ATTORNEY KOERBER:

10 And would you please state your address
11 and telephone number?

12 A. (b) (7)(C) ,

13 (b) (7)(C)

14 ATTORNEY KOERBER:

15 And do you have an attorney representing
16 you here today?

17 A. Yes.

18 ATTORNEY KOERBER:

19 And he is? His name is?

20 ATTORNEY SEARS:

21 Chris Sears.

22 ATTORNEY KOERBER:

23 And you're with who?

24 ATTORNEY SEARS:

25 Shuman, McCuskey.

1 ATTORNEY KOERBER:

2 And is Mr. Walker your client?

3 ATTORNEY SEARS:

4 Yes.

5 ATTORNEY KOERBER:

6 Mr. Walker, are you appearing here today
7 as the result of receiving a subpoena?

8 A. Yes.

9 ATTORNEY KOERBER:

10 And would this be a copy of that
11 subpoena?

12 A. Yes.

13 ATTORNEY KOERBER:

14 And I noticed that the subpoena subpoenas
15 you here for September 10th, at 1:00 p.m., and this is
16 September 9th, at 3:30 p.m.; is that correct?

17 A. Yes.

18 ATTORNEY KOERBER:

19 I had a discussion with your --- one of
20 your attorneys yesterday, Mr. McCuskey, and he
21 requested this change, and we granted it. Was you
22 made aware of it?

23 A. Yes.

24 ATTORNEY KOERBER:

25 Okay. I'd like this to be Exhibit One.

1 (M. Walker Exhibit One marked for
2 identification.)

3 ATTORNEY KOERBER:

4 And I'd like this to be Exhibit Two,
5 which is the green card signed by ---
6 A. Daniel Walker.

7 ATTORNEY KOERBER:

8 --- Daniel Walker.

9 (M. Walker Exhibit Two marked for
10 identification.)

11 ATTORNEY KOERBER:

12 I also notice that there's another
13 attorney in the room. I'd ask at this time that he
14 identify himself and his firm and who he represents.

15 ATTORNEY AKERS:

16 My name is Rob Akers. I'm with Allen,
17 Guthrie & Thomas in Charleston, and I'm here on behalf
18 of Performance Coal.

19 ATTORNEY KOERBER:

20 Okay. Mr. Walker, the statute that
21 authorizes the Director to subpoena witnesses to
22 interviews such as this requires the Director to offer
23 to each witness subpoenaed a \$40-a-day witness fee,
24 plus, pursuant to the statute, roundtrip mileage at
25 the rate of 15 cents a mile from your house to here

1 and back so long as you drove in your personal
2 vehicle, plus reimbursement for any toll you may have
3 passed on the way down or on the way back. In order
4 to receive that money, I have two forms that need to
5 be filled out, one of which is an IRS Form W-9, which
6 is requesting your Social Security number. It is my
7 understanding that the \$40 witness fee is considered
8 taxable income and will be reported to the IRS, and
9 you will get a 1099 miscellaneous at some later date.
10 If you would like to receive that money, you must fill
11 out both forms, and you can do so at the end of this
12 interview. If you are reluctant to give me your
13 Social Security number or you do not want to fill out
14 the forms, you can decline to do so. But by declining
15 to fill out the forms, you're declining the money as
16 well. What is your choice?

17 A. I'll decline.

18 ATTORNEY HAMPTON:

19 All members of the Mine Safety and Health
20 Accident Investigation Team and all members of the
21 State of West Virginia Accident Investigation Team
22 participating in the investigation of the Upper Big
23 Branch Mine-South mine explosion shall keep
24 confidential all information that is gathered from
25 each witness who provides a statement until the

1 witness statements are officially released. MSHA and
2 the State of West Virginia shall keep this information
3 confidential so that other ongoing enforcement
4 activities are not prejudiced or jeopardized in any
5 way by a premature release of information. This
6 confidentiality requirement shall not preclude
7 investigation team members from sharing information
8 with each other or with other law enforcement
9 officials. The team members' participation in this
10 interview constitutes their agreement to keep this
11 information confidential.

12 Government investigators and specialists

13 have been assigned to investigate the conditions,
14 events and circumstances surrounding the fatalities
15 that occurred at the Upper Big Branch Mine-South on
16 April 5th, 2010. The investigation is being conducted
17 by MSHA under Section 103(a) of the Federal Mine
18 Safety and Health Act and the West Virginia Office of
19 Miners' Health, Safety and Training. We really do
20 appreciate your assistance with the investigation.

21 You may have a personal attorney present

22 during the taking of this statement or another
23 personal representative, if MSHA has permitted it.

24 You may consult with this attorney at any time. Since
25 this is not an adversarial proceeding, formal Cross

1 Examination will not be permitted. However, your
2 personal legal representative may ask clarifying
3 questions as appropriate. Your identity and the
4 content of this conversation will be made public at
5 the conclusion of the interview process and may be
6 included in the public report of the accident, unless
7 you request that your identity remain confidential or
8 your information would otherwise jeopardize a
9 potential criminal investigation. If you do request
10 us to keep your identity confidential, we will do so
11 only to the extent permitted by the law. That means
12 that if a judge orders us to reveal your name or if
13 another law requires us to reveal your name or if we
14 need to reveal your name for any other law enforcement
15 purpose, we may need to do so. And just so that you
16 know, this statement is only coming from the Federal
17 team. The State has their own confidentiality laws by
18 which they must abide, and they cannot make you that
19 same promise.

20 Also, there may be a need to use the
21 information you provide to us or other information we
22 may ask you to provide in the future in other
23 investigations into and hearings about the explosion.

24 Do you understand?

25 A. Yes.

1 ATTORNEY HAMPTON:

2 Do you have any questions about that?

3 A. No.

4 ATTORNEY HAMPTON:

5 After the investigation is complete, MSHA

6 will issue a public report detailing the nature and

7 causes of the fatalities in the hope that greater

8 awareness about the causes of accidents can reduce

9 their occurrence in the future. Information obtained

10 through witness interviews is frequently included in

11 these reports. Since we will be interviewing other

12 individuals, we do request that you not discuss your

13 testimony from any other person aside from your

14 attorney. A court reporter is here. She is making a

15 record of everything that is said out loud, so please

16 speak loudly and clearly. If you don't understand a

17 question, please ask the questioner to rephrase, and

18 we certainly can accommodate you. And please answer

19 each question as fully as you can, including giving

20 any information you might have learned from somebody

21 else.

22 We'd like to thank you in advance for

23 your cooperation and appearing here today. Your

24 cooperation is critical in making the nation's mines

25 safer. After we have finished asking questions,

1 you'll then have an opportunity to go over any
2 question that you have answered and provide any
3 additional information or make any clarification. And
4 if there's any statement you would like to make at
5 that point, you can do so. And if at the point after
6 you leave here today, if you have additional
7 information you'd like to provide to the team, you may
8 contact us through the information provided to you in
9 the letter that I handed you before we started the
10 interview. Norman Page is the team leader for the
11 MSHA Accident Investigation Team, and he can be
12 contacted through the information.

13 Any statements given by miner witnesses

14 to MSHA are considered to be an exercise of statutory
15 rights and protected activity under Section 105(c) of
16 the Mine Act. If you believe any discharge,
17 discrimination or any other adverse action is taken
18 against you as a result of your cooperation with this
19 investigation, you may contact MSHA and file a
20 complaint under Section 105(c) of the Act.

21 MR. FARLEY:

22 Mr. Walker, on behalf of the Office of
23 Miners' Health, Safety and Training, I'd like to
24 inform you that the West Virginia Mining Regulations,
25 specifically West Virginia Code, Chapter 22A-1-22,

1 provides protection to miners against potential
2 discrimination for participating in these type
3 interviews. And I'd like to pass along some contact
4 information from the West Virginia Board of Appeals.
5 The Board is charged with hearing discrimination
6 complaints from miners. Should you experience any
7 such problems, you should contact the Board
8 immediately. I would caution you that should you need
9 to file a claim, you would need to do so within 30
10 days of when the problem occurs.

11 A. Okay.

12 EXAMINATION

13 BY MR. SHERER:

14 Q. Thanks for coming down here this afternoon, Mr.
15 Walker. We're investigating the April 5th explosion
16 at Upper Big Branch, and your testimony and input is
17 critical. We're doing this for two reasons. The
18 first is the 29 families and the friends and the
19 coworkers of the victims deserve some answers. The
20 second reason we're doing this is we want to prevent
21 this type of explosion from ever occurring again. And
22 any information you can provide that will help us
23 achieve those goals is greatly appreciated. Roughly,
24 how many years of mining experience do you have?

25 A. Around five.

1 Q. Okay. When did you start working for the Massey
2 organization?

3 A. April 2006.

4 Q. Okay. What was your position on April the 5th?

5 A. Within the company?

6 Q. Yes.

7 A. Mine engineer.

8 Q. Okay.

9 ATTORNEY SEARS:

10 As of 2010; right?

11 MR. SHERER:

12 2010, exactly.

13 BY MR. SHERER:

14 Q. How long have you worked as a mining engineer?

15 A. At that point, it would have been right at four
16 years.

17 Q. Okay. Had you had any prior positions?

18 A. Not within Massey, no.

19 Q. Okay. What part of Massey did you work for?

20 A. What we refer to as Route 3 Engineering. It takes
21 care of Performance, Marfork, Elk Run and a little bit
22 of Goals.

23 Q. And what was Goals?

24 A. It's basically a prep plant.

25 Q. Oh, okay. Thank you. What sort of services does

1 Route 3 Engineering provide?

2 A. I guess we take care of the surveying. We do the
3 mine permits and that type of thing. We do mapping
4 for all our operations on Route 3.

5 Q. Do you prepare and submit plans required by MSHA?

6 A. Yes.

7 Q. Now, what was your typical duties on Route 3
8 Engineering prior to the explosion?

9 A. I guess all of the things that I listed there
10 earlier in addition to the one you mentioned.

11 Q. Okay. Thank you. Who did you report to?

12 A. At that time, Paul McCombs.

13 Q. Were you hourly or salary?

14 A. Salary.

15 Q. Did you direct any other workers?

16 A. Unofficially, yes.

17 Q. Who were those workers?

18 A. AutoCAD technicians, surveyors.

19 Q. Could you --- did you plan the work for those
20 autoCAD technicians and surveyors?

21 A. Somewhat, yeah.

22 Q. Okay. Could you hire or fire those employees?

23 A. No.

24 Q. Could you discipline them?

25 A. To an extent I would say, yes.

1 Q. Were you responsible for reviewing their
2 performance?

3 A. Yes. Some of them, not all of them. Some of
4 them.

5 Q. Okay. Could you purchase any parts, supplies or
6 services?

7 A. Yes.

8 Q. Did you prepare or review plans?

9 A. Yes.

10 Q. Did you ever meet with District 4 to discuss maps
11 or plans from Upper Big Branch?

12 A. Yes.

13 Q. Are you a professional engineer?

14 A. No.

15 Q. Are you a professional land surveyor?

16 A. No.

17 Q. Are you an engineer in training?

18 A. Yes.

19 Q. Are you a land surveyor in training?

20 A. No.

21 Q. And you're an EIT in the State of West Virginia?

22 A. Yes.

23 Q. Thank you. Do you have responsible charge over
24 the production of any maps or plans?

25 A. Yes.

1 Q. What's your educational background, please?

2 A. I guess I have a B.S. in mechanical and a B.S. in
3 aerospace from WVU.

4 Q. Okay. Do you have any Federal or State mining
5 certifications?

6 A. No.

7 Q. Are you a red hat or a black hat?

8 A. Red hat.

9 Q. Okay. What's the management structure at route 3
10 Engineering?

11 A. I guess the chief engineer would be over all
12 the --- over I guess the entire office. We're kind of
13 divided into two separate entities. We have a
14 permitting environmental side and then an underground
15 side.

16 Q. Okay.

17 A. And Paul McCombs was the chief engineer at that
18 time. And they had three or four engineers on the
19 permitting side and three on the underground side.
20 Each side had --- they had two autoCAD technicians,
21 and we had four autoCAD technicians.

22 Q. Now, when you say that Mr. McCombs was the chief
23 engineer, ---

24 A. Uh-huh (yes).

25 Q. --- I'm not --- has he taken another position?

1 A. Yes.

2 Q. Do you know where he went?

3 A. Marshall Miller.

4 Q. Marshall Miller, okay. Who replaced Mr. McCombs?

5 A. I guess --- right now we just had two people hired
6 within the last week that --- one being, I guess, the
7 chief surface engineer and one being the chief
8 underground engineer. Barry Hudson is now the chief
9 underground engineer.

10 Q. Okay. How much authority did the chief engineer
11 at Route 3 have? Could he override mine management?

12 A. No, I don't think so.

13 Q. Who is Raymond Brainard?

14 A. He's also an engineer that works out of the Route
15 3 office. He does mostly taxes and that type of
16 things for all of Massey.

17 MR. MCGINLEY:

18 I'm sorry. I couldn't hear you.

19 A. He mostly does --- I guess his main function now
20 is to do taxes for Massey, the local taxes, property
21 taxes type thing for Massey.

22 BY MR. SHERER:

23 Q. Okay. Now, you mentioned that there were three
24 underground mining engineers. I assume you're one of
25 those three?

1 A. Yes.

2 Q. Who were the other two?

3 A. Heath Lilly and Eric Lilly.

4 Q. Did you guys have specific mine assignments?

5 A. Somewhat, yes.

6 Q. Which mine were you assigned to?

7 A. Elk Run I guess would be the ones I took care of,
8 Marfork, Elk Run.

9 Q. Did you have any association with Upper Big
10 Branch?

11 A. Somewhat, yeah.

12 Q. What was the nature of that work with Upper Big
13 Branch?

14 A. With being three engineers, we'd help each other
15 out as much as possible. So any time that, you know,
16 anyone would need our assistance with it, we would
17 help on it.

18 Q. So if you primarily did Elk Run, would you fill in
19 when there was a rush job or something like that at
20 UBB?

21 A. Somewhat, yeah.

22 Q. Okay.

23 A. Any time that one of the other ones wouldn't be
24 available or any time an extra one was needed or any
25 time --- that type of thing. So if someone is off

1 sick, that type of thing.

2 Q. Sure. Thank you. Have you ever received any
3 training at Route 3 Engineering?

4 A. As far as what kind of training.

5 Q. Well, let's split it up into two categories. The
6 first would be associated with your work as a mine
7 engineer.

8 A. I guess none specifically from Route 3
9 Engineering, no.

10 Q. Okay.

11 A. They allow us to go to seminars, that type of
12 thing, but nothing through Route 3, no.

13 Q. Okay. Now, have you received any safety-related
14 training ---

15 A. Yes.

16 Q. --- through Route 3 Engineering? What was that,
17 please?

18 A. I guess the Massey initial training, the MIT
19 Training, what it's commonly referred to, MIT
20 training, when you're first hired, and then annual
21 refresher courses.

22 Q. Okay. Now, that Massey initial training, how long
23 did that take?

24 A. I think originally --- it's eight hours, I believe
25 is what it is. It's when you're first hired on, so

1 it's been --- I think it's eight hours.

2 Q. But it was about a day or so?

3 A. Yeah.

4 Q. Okay. Have you received your 80-hour training
5 anywhere?

6 A. Yes.

7 Q. Where did you receive that from?

8 A. Coal River Training , I believe it's called, in
9 Whitesville.

10 Q. And you said that you got an annual retraining.
11 Is that also eight hours?

12 A. Yes.

13 Q. When was the last time you did a firefighting and
14 emergency evacuation drill?

15 A. I have not.

16 Q. You have not?

17 A. Uh-uh (no).

18 Q. Have you been underground recently?

19 A. Yes.

20 Q. Which mine did you go underground at?

21 A. I guess it's Castle Mine.

22 Q. Okay. Thank you. Are you familiar with the P2
23 standards?

24 A. Yes.

25 Q. Have you received any training or instruction on

1 those?

2 A. I guess just a document describing what they would
3 be.

4 Q. What were your responsibilities as an engineer
5 employed by Route 3?

6 A. What were my responsibilities?

7 Q. Uh-huh (yes).

8 A. The aforementioned things, the mine plan, mine
9 plan preparation, correspondence with regulatory
10 agencies, budget and reserve studies.

11 Q. Did you participate --- or were you involved in
12 any of the production reporting, like midnight or end
13 of the month reporting?

14 A. Yes.

15 Q. Did you report the footage advance at the mines
16 you were responsible for?

17 A. Yes.

18 Q. Do you know if that footage or areas associated
19 with that footage was used for bonuses or anything
20 like that?

21 A. I believe it is, yes.

22 Q. Thank you.

23 MR. MCGINLEY:

24 I'm sorry. I didn't hear.

25 A. I believe it is, yes.

1 BY MR. SHERER:

2 Q. Do you recall the last time you were underground
3 at Upper Big Branch?

4 A. I've never been.

5 Q. Never been, okay. You say you're responsible for
6 the mines at Elk run. Is that a single mine or
7 multiple mines?

8 A. No, multiple mines.

9 Q. How many mines, please?

10 A. Active mines, five.

11 Q. Okay.

12 A. Five right now.

13 Q. Okay. Who's responsible for the exploration and
14 geologic evaluation at UBB; do you know?

15 A. The exploration?

16 Q. Uh-huh (yes).

17 ATTORNEY SEARS:

18 And geological evaluations.

19 A. I really don't know. I have no idea.

20 BY MR. SHERER:

21 Q. Thank you. Do you participate in the surveying or
22 drafting of maps at any of those mines?

23 A. Not personally, no.

24 Q. Who does?

25 A. We have surveyors who are hired to do that and

1 contractors and then ones hired through Massey as
2 well.

3 Q. Do you ever have to review their work?

4 A. Not personally, no.

5 Q. Okay.

6 ATTORNEY SEARS:

7 If I can ask a clarifying ---.

8 MR. SHERER:

9 Sure.

10 ATTORNEY SEARS:

11 Do you mean review as far as checking for
12 errors or review as far as looking at the data
13 prepared by them?

14 MR. SHERER:

15 Review as far as an engineer, which would
16 be looking for errors and looking at the overall
17 system.

18 ATTORNEY SEARS:

19 Does that change your answer at all?

20 A. Looking at the overall system?

21 BY MR. SHERER:

22 Q. Yeah.

23 A. I don't know what that means.

24 Q. Okay.

25 MR. FARLEY:

1 Excuse me. Mr. Walker, can I please ask
2 you to speak up just a little bit?

3 A. Okay.

4 MR. FARLEY:

5 I'm having a hell of a time hearing.

6 A. Yes.

7 BY MR. SHERER:

8 Q. Do you ever develop mine plans and projections?

9 A. Yes.

10 Q. Did you ever develop any for Upper Big Branch?

11 A. Yes, I have.

12 Q. Do you know who laid out the current longwall
13 panel at Upper Big Branch?

14 A. As far as just general design or ---

15 Q. Yes.

16 A. --- or actual put into a computer ---?

17 Q. General design first.

18 A. It would --- there's no one person that would have
19 specifically done it, but it would have been multiple
20 people.

21 Q. Who were those people?

22 A. I guess Chris Blanchard, being the president,
23 would have been one of the main ones and with input
24 from I'm sure his superiors as well. I mean, we had
25 some input into it. Bill Ross has input into it.

1 Q. Okay. And did you attend any meetings with those
2 individuals to discuss this current longwall panel?

3 A. Yes.

4 Q. Who chose the pillar dimensions, pillar layout?

5 A. Our engineering office would have calculated the
6 stability factors and such on different ones and
7 provide that information, but I guess the final call
8 would have been Blanchard as to what ones to use. I
9 mean, ---.

10 Q. Okay. How often did you have to change the
11 projections up at Upper Big Branch?

12 A. I don't know what that means. There's no set way
13 to answer it. As needed, I'll say. I mean, it wasn't
14 often and it wasn't never, so ---.

15 Q. Okay. As needed.

16 A. As needed, I guess.

17 Q. Okay. Who decided that a change in the
18 projections should be made?

19 A. It would depend on the situation as well. I
20 mean, ---.

21 Q. Okay. Do you do any design modifications or
22 evaluation of the ventilation systems at Upper Big
23 Branch?

24 A. I guess to a degree, yeah.

25 Q. Okay. Who was in charge of ventilation at Upper

1 Big Branch?

2 A. I don't know really that there's someone
3 specifically in charge of ventilation. I mean, Eric
4 Lilly was the engineer that was assigned there. He
5 wasn't necessarily responsible for the ventilation.
6 It was I guess, you know, between him and the
7 superintendent, the mine foreman and the president and
8 --- so there wasn't a specific person assigned to
9 oversee ventilation on it.

10 Q. Okay. Does Route 3 Engineering have a ventilation
11 specialist?

12 A. No.

13 Q. At Upper Big Branch, if there was an issue related
14 to ventilation, who would be the ultimate decider?
15 Who had the final word?

16 A. I guess the final word would have been Chris
17 Blanchard as far as ---.

18 Q. Okay. Thank you. Tell me what the normal
19 procedure for a ventilation-related change at Upper
20 Big Branch --- how did that work?

21 A. I guess when it was determined that something was
22 needed, then I mean it was discussed with the
23 superintendent, the mine foreman normally. It would
24 be prepared. It would be sent to management to review
25 normally. It would be submitted to the agency. They

1 would review it, get back to us. Any corrections
2 would be discussed again with management, what changes
3 to be made or discussed with them or however, and it
4 would be implemented.

5 Q. And you participated in some of these
6 ventilation-related changes?

7 A. Yes.

8 ATTORNEY SEARS:

9 At UBB?

10 MR. SHERER:

11 At UBB, yes.

12 A. Yes.

13 BY MR. SHERER:

14 Q. What do you recall was the normal reason for a
15 ventilation change?

16 A. Once again, it's not --- it's a broad question
17 for ---.

18 Q. Okay.

19 A. I mean, it's a blanket question I guess I'm
20 saying. I mean, there's no one answer to it.

21 Q. Okay. The ventilation-related changes that you
22 participated in, were they initiated because of some
23 change in conditions of the mine or the mine plan?

24 A. At times, yes. I mean, but the initial plan was
25 needed because we wanted to start our longwall in the

1 seam, so that was one I had some dealings with.

2 Q. Okay.

3 MR. MCGINLEY:

4 I'm sorry, can you speak up?

5 A. The initial --- you know, the ventilation
6 originally to put a longwall into the mine was done
7 because we wanted to put a longwall into the mine. So
8 I mean, that was the reason we did it. And as far as
9 individual changes, it would be whatever --- whether
10 you would be moving the section once it finished
11 developing that area, you would need to move back
12 here. So it's not necessarily changing conditions in
13 the mine, but I guess it would be considered changing
14 conditions in the mine plan because they would be
15 moving from one location to another. Those would be
16 the majority of them, just ---.

17 BY MR. SHERER:

18 Q. Okay.

19 A. We had kind of four --- in this mine we had four
20 sections in the longwall, and any time one of them
21 moved to another location we would have to go through
22 that process. So that was the majority of it.

23 Q. Did you ever have to make changes based on any
24 citations or order from MSHA?

25 A. Yes.

1 Q. How often did that happen?

2 A. I know of one time that I did. And that's
3 probably it, just one time.

4 Q. Okay. Now, when you --- you worked on that
5 ventilation plan change that was initiated by the
6 citation or order that MSHA issued. Did MSHA tell you
7 how to do the mine plan?

8 A. In this case, yes.

9 Q. Specifically what was that?

10 A. Previously we'd have --- in our plan it said --- I
11 believe it was --- I don't know. I believe it was
12 we'd have at least one break that the air could
13 circulate up on it and they had it going up multiple
14 ones and the plan said at least one. And MSHA wrote a
15 citation for that and shut the longwall down. And we
16 had to go in and build the stopping line back in and
17 allow only one, I guess.

18 Q. Okay. That was on the tailgate of the longwall?

19 A. Yes.

20 Q. Who worked on the 75372 ventilation map at Upper
21 Big Branch?

22 A. As far as getting the information on it or putting
23 the map together as far as autoCAD version?

24 Q. All or both.

25 A. I guess getting the information would be fire

1 bosses, mine foremen, superintendent mostly. Putting
2 the information into the digital --- taking that
3 information and putting it --- I guess surveyors did,
4 too, as far as updating works.

5 Q. Okay.

6 A. As far as putting that in, we would normally have
7 either the engineer, autoCAD or a lot of times both to
8 an extent. The autoCAD technician would put that
9 information into our digital drawing file.

10 Q. Who certified that ventilation map?

11 A. Paul McCombs or Ray Brainard are the two P.E.s at
12 that office that certified the maps.

13 Q. Okay. Did Mr. McCombs or Mr. Brainard ever go
14 underground to check any of those readings?

15 A. Not usually, no.

16 Q. Thank you. Are you aware of any ventilation
17 surveys being done at Upper Big Branch?

18 A. Prior to the accident, we had U.K. did one, Doctor
19 Wala.

20 Q. Doctor who?

21 A. Wala.

22 Q. Can you spell that, please?

23 A. I believe it's W-A-L-A.

24 Q. Do you know approximately when he did that?

25 A. 2006/2007 I believe is when the actual survey

1 underground work was done. He developed the computer
2 modeling up until --- oh, we had a meeting II guess in
3 about the time we put the shaft down, whatever day it
4 could be for that, and deciding the fan side and that
5 type of thing it was going in.

6 Q. Okay. And did you acquire the computer model ---
7 ventilation computer model for your use of Route 3
8 Engineering?

9 A. I didn't personally, no.

10 Q. Did anyone at Route 3 Engineering?

11 A. We had an engineer at --- he was an independent
12 actually that worked with --- he went through the U.K.
13 programs and worked with Doctor Wala and everything
14 and was familiar with the program that they used ---
15 is what he used on that.

16 MR. MCGINLEY:

17 I can't hear. I'm sorry.

18 A. At U.K., I guess, and he was familiar with him and
19 was familiar with the program that they used for their
20 ventilation survey.

21 OFF RECORD DISCUSSION

22 MR. FARLEY:

23 Who was the individual working with

24 Doctor --- the guy at U.K.

25 A. Reddy ---.

1 MR. FARLEY:

2 I know who you're talking about.

3 A. Rayhuveer thadisina is how I guess it's
4 pronounced. Reddy is how he's known to us, everyone
5 throughout the area.

6 MR. MCGINLEY:

7 How do you spell that?

8 A. R-E-D-D-Y.

9 BY MR. SHERER:

10 Q. Is he still employed by Independence?

11 A. Yes.

12 Q. Okay. Thank you. Were you aware of the numerous
13 violations and orders received at UBB for ventilation
14 problems and deficiencies?

15 A. I guess I --- numerous violations kind of ---.

16 Q. Let's put it this way.

17 A. A loaded question, I guess.

18 Q. We issued a lot of paper related to ventilation in
19 the four or five months prior to the explosion. Did
20 you have any knowledge of that?

21 A. I knew of --- I guess I knew of some violations.

22 I mean, I don't get a copy of every violation that's
23 written at the mine, no.

24 Q. Okay.

25 A. Anything that would have any dealings with, I

1 guess, our office, normally we would receive a copy of
2 that, so ---.

3 Q. Now, when you developed ventilation plans that
4 were submitted to MSHA, did you ever go underground
5 and then evaluate the effectiveness of those plans?

6 A. Me personally, no. But we normally have --- you
7 know, we have people at the mine do it and we'll get
8 information from them, but ---.

9 Q. Okay. So people at the mine would go underground
10 and take ---

11 A. Air readings ---

12 Q. --- air readings?

13 A. --- and such to --- yeah, if the pressure drops
14 some. Eric Lilly went in and got pressure drops
15 multiple times and such in areas. Me, personally, I
16 never at this mines.

17 Q. Have you done any of the mines?

18 A. Have I ---?

19 Q. Have you done PQ-type work at any of the mines?

20 A. Yes.

21 Q. Pressure quantity.

22 ATTORNEY SEARS:

23 Still a student.

24 MR. SHERER:

25 We all are.

1 BY MR. SHERER:

2 Q. Did you work on the long-term projection or
3 five-year mine plan at Upper Big Branch?

4 A. Yes.

5 Q. Did the current mine layout at UBB correspond with
6 that five-year plan?

7 ATTORNEY SEARS:

8 Can you define what you mean by current
9 layout?

10 MR. SHERER:

11 The layout at Upper Big Branch,
12 particularly the northern part of the mine, as it was
13 at the time of the explosion.

14 A. Those are all --- the budget five-year plans are
15 only done annually, and it would have been, I guess,
16 the previous June when it would have been done. So I
17 mean, exactly, no, it wouldn't have matched it as ---.

18 BY MR. SHERER:

19 Q. Okay. Did it ---?

20 A. In general it matched it, but I mean, as far as
21 exactly matching it ---.

22 Q. Okay. Thank you. Did mine management at Upper
23 Big Branch regularly call you guys up at Route 3 and
24 discuss ventilation-related problems?

25 A. I guess it would depend on what regular would be.

1 I mean, they did, but you know, every day they didn't
2 call me.

3 Q. Not every day, but ---.

4 A. Yes, whenever there was ventilation issues or such
5 I guess they would normally discuss it with someone
6 from Route 3 Engineering.

7 Q. And did you guys look at how to change the
8 ventilation, what stoppings to build, what stoppings
9 to take out? Was that part of your recommendations?

10 A. Usually, yeah.

11 Q. Did you have anything to do with roof control or
12 rib control or pillar layouts at UBB?

13 A. I guess to an extent. I mean, not --- a little
14 bit, I guess, yeah.

15 Q. A little bit, okay. Was there someone at Route 3
16 Engineering that primarily did that sort of work?

17 A. Eric Lilly also would have been the one that would
18 have done that at UBB normally ---

19 Q. Okay.

20 A. --- under normal circumstances. I'm sure he
21 didn't do it every time, but normally that's who ---.

22 Q. Do you know if anybody did any engineering design
23 work on a dewatering system at UBB?

24 A. Yes. And that would have been more I guess how I
25 said we were divided into underground and permitting

1 stuff. The water issue and stuff would normally goby
2 the other office. Paul McCombs would have been the
3 one that had the most information on that then.

4 Q. Okay.

5 OFF RECORD DISCUSSION

6 BY MR. SHERER:

7 Q. Was there any sort of annual or other periodic
8 review of the general conditions and mine plans at
9 Upper Big Branch that you're aware of?

10 A. There's not a regular scheduled audit or whatever
11 you call it, no.

12 MR. SHERER:

13 That's all the questions I've got for
14 right now.

15 EXAMINATION

16 BY MR. FARLEY:

17 Q. Mr. Walker, Erik asked about the ventilation
18 survey at UBB, and of course you answered that Doctor
19 Wala from U.K. ---

20 A. Uh-huh (yes).

21 Q. --- had done some considerable work there. Now,
22 do you know any more details as to actually what type
23 of survey was performed or did it encompass a lot of
24 things, such as air quantity, pressures, direction of
25 airflow, mapping? How did it play; do you know?

1 A. I believe they spent two days underground doing
2 air quantities, pressure drops and barometric pressure
3 and all that and pressure drops, I guess control map
4 and that type of thing, too, as well, air direction.
5 All the things you listed were involved in, I guess,
6 the underground survey portion of it. And then he
7 built computer model using what they found with their
8 underground survey and, you know, would make
9 adjustments to that, too, you know, to make
10 predictions for how far you can do this or what's
11 going to happen when this will happen or whatever.

12 Q. Now, if I understood you correctly, this survey
13 was done in 2006 and 2007?

14 A. Yes.

15 Q. Okay. Now, at that time, were there any
16 adjustments, significant adjustments that you can
17 recall that were made following the survey?

18 A. No.

19 Q. Was the longwall --- the installation for the
20 longwall panel at that time being considered? Was it
21 on the drawing board at that time?

22 A. I guess it --- it had been going back and forth
23 whether to put a longwall in the northern area for
24 some time prior to it, so it would have been
25 considered at that time, yes.

1 Q. Now, as we understand it, the longwall was moved
2 out of UBB a few years ago?

3 A. Yeah, 2006, I believe.

4 Q. Yeah, prior to the --- a few years prior to the
5 explosion.

6 A. Uh-huh (yes).

7 Q. Now, at what point did the idea of bringing it
8 back to UBB first appear on your radar screen. When
9 did you become aware of that?

10 A. I guess there had always been, you know,
11 projections shown for that area that we had had where
12 it had been considered prior to moving the longwall
13 out of there, so ---.

14 Q. Okay. So as best you can --- you've been with the
15 company about what, five years?

16 A. Almost, yeah. Not quite five years.

17 Q. So would it have been on your radar screen for as
18 long as you've been employed there?

19 A. Yeah.

20 Q. Okay. I asked you if there were any adjustments
21 made following the ventilation survey. Were there ---
22 was there a document or a report prepared? And you
23 indicated a computer simulation that was done, too; is
24 that correct?

25 A. Yeah. He had done a computer simulation and a

1 group from, I guess, UBB representatives met with them
2 and discussed everything. As far as an actual report,
3 I don't know that there was a report written, any kind
4 of text or anything, but ---.

5 Q. Okay. Did the computer simulation incorporate
6 plans for the longwall development?

7 A. Yes.

8 Q. Okay. All right. Is the computer simulation
9 still available in some form?

10 A. I'm sure it is. I don't have a copy of it. I
11 would say that he would still have what he did at that
12 time, I would think. And I mean, I believe Massey has
13 done its own simulation since the explosion, too,
14 using the same type of things, even a PC, I guess.

15 Q. Okay. So you think Massey has done a simulation
16 since the explosion?

17 A. Yeah. But his original one, I would assume he
18 would likely still have a copy of it as well.

19 Q. Okay. Is there still a relationship between
20 Doctor Wala and Massey currently?

21 A. Yeah. As far as I know, yeah.

22 Q. Okay. Some discussion here of ventilation changes
23 at Upper Big Branch Mine prior to the explosion. Did
24 you ever actually participate in any of this or were
25 you ever involved personally?

1 A. As far as, I guess, planned preparation sections
2 normally within my --- the limits of my involvement in
3 it, I guess. As far as saying this is what we --- you
4 know, this is what we're going to do and you have a mp
5 and you're going to build this stopping and this
6 stopping, no, I wouldn't go underground and say, you
7 build that stopping and you build that stopping.

8 Q. Who would ordinarily direct the ventilation
9 changes, if you know?

10 A. The superintendent was normally the one that does
11 it, the mine foreman. Either one of those two would
12 be the two that ---

13 Q. Okay.

14 A. --- did that.

15 Q. I think you said that Mr. McCombs, is that
16 correct, ---

17 A. Uh-huh (yes).

18 Q. --- would have been the person involved with water
19 problems at the UBB Mine; is that correct?

20 A. Yeah. He deals with all the water system-type
21 things.

22 Q. Okay. Now, did that include drainage, pumping it
23 from the mine? What's your knowledge of his
24 involvement with water problems at UBB Mine?

25 A. I guess his main involvement would be, you know,

1 if you put a new water hole down here, what are you
2 going to do with that water, was his main involvement
3 in it. As far as I guess providing ideas and such, he
4 would do that as well. We would discuss what would be
5 potential, I guess.

6 Q. Was his primary responsibility how to get the
7 water out of the mine or was it to get --- include
8 getting the water from one place to the next in the
9 mine?

10 A. I guess his primary would probably be getting the
11 water out of the mine. But getting the water from one
12 place in the mine to that place would be involving
13 that as well, I guess, too.

14 Q. Just to be clear here, when you say you worked for
15 Route 3 Engineering, would it be technically correct
16 to say you worked for Massey Coal Services? Is that
17 correct?

18 A. Yes, I guess I'm employed through Massey Coal
19 Services. So I'm employed by them, Massey Coal
20 Services, yes.

21 Q. Okay. And that's just --- Route 3 Engineering is
22 what you call yourselves?

23 A. Well, that's me. We have people that are paid
24 through Marfork. We have people that are paid through
25 Elk Run. We have people that are paid through

1 Performance as well, so ---. That's why Route 3 ---
2 it's everybody on Route 3 there, I guess.

3 Q. So engineers from the various companies ---?

4 A. They used to have an engineering office near
5 Marfork ---.

6 ATTORNEY SEARS:

7 Let him finish his question.

8 BY MR. FARLEY:

9 Q. Engineers from the various companies at Massey
10 Coal Services just sort of function out of the same
11 facility. Is that how it works? Is that --- am I
12 correct?

13 A. They used to have an engineering office at
14 Marfork. They used to have an engineering office at
15 Elk run. They used to have an engineering office at
16 Performance. Back before I started, 2003, 2004, they
17 consolidated those offices into one centralized
18 location on Route 3 that took care of the same
19 business that they did before. That was termed Route
20 3 Engineering at that point because they took care of
21 the --- all the operations that they had on Route 3
22 there. So those people would still --- you know, part
23 would be paid through Marfork and so on, but the
24 office was --- had become centralized. They weren't
25 --- they weren't physically located at the Marfork

1 main office. They weren't physically located at the
2 Elk Run main office any longer, so they took care of
3 all that on Route 3.

4 Q. Okay. And this consolidation of sorts came
5 together before you arrived on the site?

6 A. Yes. I believe it's 2003, 2004, which is before I
7 started.

8 Q. Did you have any particular problems in dealing
9 with the management personnel at the UBB Mine?

10 A. No.

11 MR. FARLEY:

12 Next.

13 EXAMINATION

14 BY ATTORNEY HAMPTON:

15 Q. Just real quick, when you talked about the work
16 that Doctor Wala did in conducting the ventilation
17 survey, you said they. Did he have other people
18 working with him from the university?

19 A. When they did the underground survey, one person
20 can't do it at all, so he had --- I guess I wasn't
21 involved in it when he did it, but there were multiple
22 teams usually --- at least two, maybe three people per
23 team, and you would get air readings and such from
24 underground and stuff. So that's what I mean by that,
25 I guess.

1 Q. Well then, let me ask, do you know if he did have
2 anybody else from the university working with him,
3 perhaps a student?

4 A. I don't know.

5 ATTORNEY HAMPTON:

6 Sorry.

7 MR. FARLEY:

8 Sorry. I forgot a couple things here.

9 RE-EXAMINATION

10 BY MR. FARLEY:

11 Q. Did the design for the Bandytown fan result in any
12 way from the ventilation survey and the computer
13 simulation prepared by Doctor Wala?

14 A. Yes.

15 Q. Okay. Now, was there another fan projected in
16 that survey or that simulation ---?

17 A. I guess.

18 Q. --- in addition to that, in addition to ---?

19 A. Long term, is that what you mean or ---?

20 Q. Yes.

21 A. On that one, no. On that --- regarding that, no.
22 At that time it was just that fan. I guess the plans
23 had called once we developed more panels we would put
24 another fan in another location further north, but it
25 wasn't discussed in that ---.

1 Q. Now, was the idea of this additional fan further
2 north, was it on the drawing board as of April 5th?

3 A. Nothing concrete. I mean, it was ---.

4 Q. Would it have involved sinking another shaft?

5 A. Yes.

6 Q. Okay. All right.

7 MR. MCGINLEY:

8 Can we take a couple-minute break here?

9 MR. FARLEY:

10 Sure.

11 ATTORNEY HAMPTON:

12 Sure.

13 SHORT BREAK TAKEN

14 EXAMINATION

15 BY MR. MCGINLEY:

16 Q. Mr. Walker, you hold a B.S. degree in mechanical
17 engineering and a B.S. degree in aerospace
18 engineering ---

19 A. Yes.

20 Q. --- from West Virginia University; is that
21 correct?

22 A. Yes.

23 Q. So you have two different degrees?

24 A. Yes.

25 Q. How long did it take you to accumulate those two?

1 A. Class time, four-and-a-half years. But I worked
2 co-op during my time there, too, so that was ---.

3 Q. What does that mean?

4 A. In place of going to class, you work a job. I was
5 a co-op student.

6 Q. Where did you work?

7 A. RAG Emerald Mine.

8 Q. Is that in Waynesburg?

9 A. Yes. So I guess five-and-a-half from the time I
10 started until I got my degrees.

11 Q. What was in the aerospace engineering curriculum
12 that directly relates to your work at Route 3
13 Engineering?

14 A. Mostly fluids, I mean, air, ventilation, that type
15 of thing, water, all that. It goes hand in hand. I
16 think a lot of the --- a lot of the curriculum at WVU
17 with mining, they take a lot of the mechanical and
18 aerospace classes as well as part of their degrees.

19 Q. Can you speak up a little bit?

20 A. Yeah. As part of the mining program at WVU I know
21 the mining students take a lot of the mechanical and
22 aerospace classes as well, thermodynamics, fluids,
23 dynamics, statics, all that stuff.

24 Q. What courses did you take in the mining
25 engineering curriculum at WVU?

1 A. None.

2 Q. None?

3 A. Yeah.

4 Q. What did you do at RAG?

5 A. Well, being a co-op student, kind of introducing
6 me to everything. Did a little bit of their water
7 sampling program, that type of thing, did a little bit
8 of time study for them, their underground work.

9 Q. As a student, it wasn't, it was really a little
10 bit; right?

11 A. Yeah. It was introduction, so yeah.

12 Q. When did you decide to go into coal mining
13 engineering?

14 A. After being a co-op student there, after I
15 graduated, I went back there and worked for a while.

16 Q. At RAG?

17 A. Yeah.

18 Q. For how long?

19 A. I guess about six months. After I graduated, I
20 worked there.

21 Q. What did you do there?

22 A. We did --- I moved from actually Emerald Mine, I
23 guess, to their planning and engineering group. And
24 part of what I did, I guess, we did a computer program
25 to ---.

1 Q. A what?

2 A. A computer program that, you know, dealt with, I
3 guess, shuttle car haulage time and that type of
4 stuff.

5 Q. Time studies?

6 A. Yeah. And then some vent survey work, too.

7 Q. What did that involve, the vent survey work?

8 A. Just basically calculations and everything from
9 what --- while I was a student there, we done the
10 underground portion of the vent survey and then we
11 were doing the, you know, calculations and modeling
12 part of it, so I kind of continued on with that after
13 I graduated.

14 Q. Was that the first experience you had with the
15 ventilation survey?

16 A. Yes.

17 Q. You didn't study ventilation surveys or
18 underground ventilation modeling in any of your WVU
19 courses?

20 A. No.

21 Q. What was your job title at RAG?

22 A. Co-op student, and then I don't really know what
23 it would have been, junior engineer or something along
24 those lines for me.

25 Q. And you stayed there for six months?

1 A. Yeah.

2 Q. Why did you leave?

3 A. I'm from, I guess, around the Charleston area, so
4 I just came back there.

5 Q. Where in the Charleston area?

6 A. Clay County area. That's where I was raised.

7 Q. And did you have a job at the time you left RAG?

8 A. No.

9 Q. What was the period between the time you left RAG
10 and you got your next job?

11 A. I don't know.

12 Q. A couple months?

13 A. A month or so, might have been.

14 Q. And was that with Massey?

15 A. No.

16 Q. Who did you go to work with then?

17 A. Well, I worked a couple other jobs and even worked
18 --- I had worked at Lowe's for a little while and then
19 I worked as a teacher for a little while, too.

20 Q. How long was a little while with each of those
21 jobs?

22 A. Eighteen (18) months and then about six months.

23 Q. When did you get your degrees?

24 A. 2001.

25 Q. Both of them?

1 A. Yes.

2 Q. And where did you teach?

3 A. Clay County High School.

4 Q. What did you teach?

5 A. Science and math.

6 Q. What grade?

7 A. Ninth, tenth mostly.

8 Q. Okay. So you left RAG, then in a month you got a
9 job teaching or --- Lowe's and then teaching?

10 A. Yeah.

11 Q. And that took up what, 18 months? That got you up
12 to about 2003?

13 A. I had worked security, I guess, whenever I first
14 came back from RAG. And I didn't work anywhere for a
15 little while, and then I worked at Lowe's for about 18
16 months. I didn't work for a couple months and then I
17 was a teacher for a couple months. And after I was a
18 teacher, I started working at Massey after that.

19 Q. Were you a substitute teacher?

20 A. Yeah.

21 Q. And you went to work at Massey in 2006?

22 A. Yes.

23 Q. So there are basically four years after you left
24 RAG that you were doing these different things you
25 just described?

1 A. Yes.

2 Q. And how did you get hired by Massey?

3 A. I applied. And I knew one of the engineers down
4 there. I went to school with him.

5 Q. Who was that?

6 A. Mark Morris.

7 Q. Mark?

8 A. Mark Morris.

9 Q. Is he still there?

10 A. No.

11 Q. Where did he work?

12 A. Where does he work now?

13 Q. I mean, where did he work at that time?

14 A. He was at Route 3.

15 Q. Okay. And he told you there was an opening?

16 A. Yes.

17 Q. And how did you --- did you take a test? How did
18 you get the job?

19 A. I sent in a resume and then interviewed and got
20 the job.

21 Q. And have you had the same job title since you were
22 first hired?

23 A. Yes.

24 Q. Did you have the same responsibilities since you
25 were first hired?

1 A. No.

2 Q. How have they changed?

3 A. I guess kind of from being the entry-level guy to
4 more the senior guy. I'm just a regular ---.

5 Q. Now you're the senior engineer of the three ---?

6 A. Of the three, yeah.

7 Q. And how much experience do the other two have?

8 A. Two-and-a-half years.

9 Q. Both of them have two-and-a-half years?

10 A. Yeah. They were hired at the same time.

11 Q. It would have been around 2007, 2008?

12 A. Yes.

13 Q. So when you came to Massey as a junior engineer,
14 you had never done any mine plans before?

15 A. No. Uh-uh (no).

16 Q. Never did a ventilation plan?

17 A. No.

18 Q. Had you ever prepared a mine map using the
19 computer ---

20 A. Yeah.

21 Q. --- software?

22 A. Yeah.

23 Q. You have done that? Where did you do that?

24 A. At RAG.

25 Q. For what? What was the purpose of the map? Was

1 it environmental or ---? Don't remember?

2 A. A bunch of things. I mean, ---

3 Q. Okay.

4 A. --- the same as anywhere else.

5 Q. But that was all new to you?

6 A. Yeah, at the time it was.

7 Q. So when you came to Massey, you had done some mine
8 mapping?

9 A. Yes.

10 Q. Had worked on it?

11 A. Yes.

12 Q. But not much; is that fair?

13 A. Yeah, I guess so.

14 Q. So that's why you felt like you were a junior
15 engineer?

16 A. Well, that's what my title was at RAG.

17 Q. I see.

18 A. At Massey I was --- mine engineer was my title.

19 Q. Okay. So how did you learn to do all the things
20 that you've been doing the last year or so?

21 A. On-the-job training, I guess.

22 Q. Who trained you?

23 A. No one specifically.

24 Q. No one specific?

25 A. No.

1 Q. You just sort of asked questions of who?

2 A. It's the same as any other job. I mean,
3 engineering program doesn't teach you to be an
4 on-the-job engineer.

5 Q. A lawyer ---.

6 A. It teaches you how to think. It prepares you for
7 what you need to know. It gives you a background. So
8 I mean, somebody fresh out of college is not going to
9 have any idea what they're going to be doing at the
10 job. They just know, --- I mean, statics and dynamics
11 aren't going to teach you anything, so ---.

12 Q. So you had a lot to learn; right?

13 A. I'm not an idiot.

14 Q. No, I understand.

15 A. I'm kind of getting a little bit insulted by this,
16 to be honest, but ---.

17 Q. Kind of like Mr. Sears, former student of mine.
18 he had a lot to learn. He's learned a lot. I'm
19 continuing to learn. I'm not trying to insult you.
20 I'm just trying to understand what your background is.
21 It's part of the investigation. Because this is
22 serious, and we're looking at everything. So your
23 truthfulness and responsiveness is helpful to us,
24 because we've got families who are depending on us
25 here today.

1 A. Uh-huh (yes).

2 Q. Did you know anybody that was killed in this ---

3 A. Uh-huh (yes).

4 Q. --- explosion?

5 A. Yes.

6 Q. So you know. That's what we're trying to do, is
7 to figure out what's the cause of this, what happened.

8 That's why we ask a lot of questions. And the
9 experience of people who worked there is important.

10 A. Uh-huh (yes).

11 Q. When did you first work on a ventilation plan?

12 A. I guess when I first started. I mean, ---.

13 Q. So who talked to you about how to do a ventilation
14 plan, if you recall?

15 A. The other engineers there, Mike Millen, George
16 Levo, Tim Tirey, Mark Morris.

17 Q. They weren't all there at the same time, though?

18 A. Yeah, they were.

19 Q. They were?

20 A. Yeah.

21 Q. So there were four?

22 A. When I was first hired there were --- I guess I
23 would have been the fifth one hired there. And then
24 shortly after I was hired, Ray Brainard was hired to
25 be the sixth. And then actually one of the guys that

1 was killed in the explosion was hired as the seventh.

2 Q. Who was that?

3 A. Nick McCroskey.

4 Q. And at some point they were all gone but you and
5 the two fellows you're working with now came in?

6 A. Yes.

7 Q. So did those folks have more experience? I mean,
8 were they ---?

9 A. Yes.

10 Q. Ten, 20 years experience?

11 A. Yes.

12 Q. And at what point did those experienced people
13 leave that were working with you?

14 A. Mike Millen left in, I believe, October of 2006.
15 Tim Tirey left in early 2008. Mark left in early
16 2008. George Levo passed away in the middle of '08.

17 Q. So pretty quickly you were the senior person?

18 A. Yeah.

19 Q. Did you feel that responsibility?

20 A. Yeah.

21 Q. Did you feel like you were up to the --- that
22 extent of responsibility with only two-and-a-half
23 years of actual on-the-job work?

24 A. If I had questions, there were other people I
25 could ask. I mean, it's not like I was just, hey, you

1 take care of this, I'm going over here, you know.

2 Q. Sure.

3 A. So it's not like we were thrown into a fire and
4 left. I mean, ---

5 Q. I understand that.

6 A. --- we still have other people if we have
7 questions we can ask and everything, so ---.

8 Q. So let me ask about ventilation plans and the
9 mapping that goes along with it.

10 A. Uh-huh (yes).

11 Q. And I'm not talking about UBB. I'm just talking
12 about generally in your office. When a major
13 ventilation plan change is contemplated for whatever
14 reason, ---

15 A. Uh-huh (yes).

16 Q. --- who makes the decision about how that change
17 is going to be carried out, the bigger picture, not as
18 you were mentioning, where does this stopping go or
19 that stopping go, but the bigger picture?

20 A. I guess the ultimate decision would be on ---
21 placed on the president, would be the ultimate
22 decision. It's discussed from engineering to
23 superintendent, mine foreman, you know, at the mine
24 personnel to president, vice-president. But I guess
25 the ultimate --- the person that would make the final

1 decision on it would be the president.

2 Q. President of each ---

3 A. Yes.

4 Q. --- company?

5 A. Yes.

6 Q. And there are what, three or four companies

7 that ---

8 A. Three right now that we deal with.

9 Q. --- Route 3 Engineering services?

10 A. Yes, three.

11 Q. Are there ever people above the company president
12 that are involved in the discussion of ventilation
13 plans?

14 A. In some ventilation plans, yeah. I mean, big ---
15 you know, whether to put a longwall into a mine, I
16 mean, I'm sure that goes beyond just the president.

17 Q. Well, you were involved in a substantial change in
18 December of 2009. Do you recall that?

19 A. I don't know specifically what one you mean there.

20 Q. Well, you submitted to MSHA --- you wrote a letter
21 to Robert G. Hardman, who's the head of District 4.
22 do you know Mr. Hardman?

23 A. Yes.

24 Q. A ventilation plan revision on December 14th,
25 2009.

1 A. Uh-huh (yes).

2 Q. Do you remember that?

3 A. Not specifically, no.

4 Q. It didn't work. Do you remember that one?

5 A. No. Can I read it or ---?

6 ATTORNEY SEARS:

7 Could you show him?

8 MR. MCGINLEY:

9 I'm just wondering if he remembers.

10 ATTORNEY SEARS:

11 Okay. That's fine. If you show him, it
12 might refresh his recollection.

13 MR. MCGINLEY:

14 Well, I will.

15 ATTORNEY SEARS:

16 Okay.

17 MR. MCGINLEY:

18 I appreciate that.

19 ATTORNEY SEARS:

20 Okay.

21 BY MR. MCGINLEY:

22 Q. I'm going to show you a document. Actually, it's
23 a double-sided document, a letter dated December 14th,
24 2009, to Mr. Hardman, signed by you, re: Performance
25 Coal Company, Upper Big Branch Mine, mine number, ID

1 number, ventilation revision. And there are
2 attachments to that. There are a couple of maps,
3 charts and so forth. And then there's a response to
4 your letter. It's a letter dated December 18th, 2009,
5 addressed to Chris Blanchard, signed by Mr. Hardman,
6 but it's in response to your December 14th, 2009
7 letter. Will you take a look at that?

8 ATTORNEY SEARS:

9 Take your time to read it.

10 BY MR. MCGINLEY:

11 Q. Take all the time you want.

12 WITNESS REVIEWS DOCUMENT

13 A. Okay.

14 BY MR. MCGINLEY:

15 Q. Do you remember those documents?

16 A. Yeah, somewhat.

17 Q. Did it somewhat refresh your recollection
18 generally?

19 A. Yeah. There's part of it missing, but yeah.

20 Q. But what I'm pointing out to you is a letter that
21 you sent and it indicates there was a ventilation plan
22 revision ---

23 A. Yes.

24 Q. --- that was attached, and that letter was dated
25 December 14th, 2009; correct?

1 A. Yes.

2 Q. And then that ventilation plan revision was
3 approved on December 18th, 2009; is that correct?

4 A. Yes.

5 Q. Do you remember what the reason was for submitting
6 that revision?

7 A. To travel one entry from the connection of the
8 longwall panel back is what that is for.

9 Q. Do you remember that situation?

10 A. Somewhat, yeah.

11 Q. Is that something MSHA forced ---

12 A. This?

13 Q. --- UBB to do?

14 A. I guess, no, not on this one. They, I guess,
15 interpreted the law differently than they had
16 previously to force us to travel an entry up there
17 that we normally would not have done.

18 Q. Did you have any disagreement with MSHA over that
19 revision or is that a submission of Performance Coal
20 and Route 3 Engineering?

21 ATTORNEY SEARS:

22 Do you understand the question?

23 A. Yeah. I guess he's saying we were forced to do
24 this or were we doing it --- was it our idea from the
25 get-go or were we doing it on our own?

1 BY MR. MCGINLEY:

2 Q. Right.

3 A. If I recall correct, I ---.

4 ATTORNEY SEARS:

5 If you remember.

6 A. I mean, there was --- I can't remember the exact
7 specific circumstances, but I don't know if it was the
8 water or whatever. We couldn't travel the outside
9 entry, but we were going to have to make it common
10 with it so we could travel the entries were they were
11 able to travel instead of traveling one that had water
12 in it.

13 BY MR. MCGINLEY:

14 Q. Weren't several entries roofed out there?

15 A. I don't know ---

16 Q. You don't know?

17 A. --- specifically. No.

18 Q. And there were problems with roof, roof problems
19 and cribs being built to ---.

20 A. Ribs are a common occurrence in the mine, as I
21 understand it.

22 Q. Well, we've heard some other testimony.

23 A. Yeah. I mean, the cribs were built ---.

24 Q. Excuse me. Maybe these people that testified
25 before, they were inaccurate. But I'm just asking you

1 what you recall.

2 A. I have no personal knowledge of that, so I mean, I
3 can't ---.

4 Q. Well, I don't mean personal knowledge because you
5 didn't go in the mine to see that; ---

6 A. Correct.

7 Q. --- is that right?

8 A. Correct.

9 Q. Okay. But personal knowledge in terms of talking
10 to people that worked in your office that were in the
11 mine.

12 A. Uh-huh (yes).

13 Q. Were there people that actually went down there
14 before that December 14th ventilation revision was
15 submitted that came back and talked about the problems
16 that gave rise to the revision?

17 A. Not to me, no.

18 Q. So you didn't know anything about it? Just
19 generally, you knew there was some water or ---?

20 A. Yes. I mean, I knew there was water in there.
21 That doesn't mean whether it would be six inches of
22 water or roofed, but ---.

23 Q. Would you have liked to have known that?

24 A. I mean, I don't ---.

25 Q. Does water affect --- can water affect a

1 ventilation plan?

2 A. Yes.

3 Q. How so?

4 A. If it's blocking off, it can block off. I mean,
5 it creates restrictions and such.

6 Q. So you would want to know if there was an area of
7 the mine where the water roofed out in entries?

8 A. If it was roofed, I would like to know, yes.

9 Q. And what if it was a foot from the roof?

10 A. Yes. I mean, but if it's, you know, six inches
11 deep, it's not going to make any difference.

12 Q. Well, obviously.

13 A. Right.

14 Q. At what point do you get concerned about the
15 impact of ---

16 A. Generally, ---.

17 Q. --- water --- let me finish, the impact of water
18 on a ventilation system?

19 A. Generally when it becomes untravelable or when you
20 can't travel through is normally when it becomes an
21 issue.

22 Q. So it's people in the mine being able to travel or
23 is it air travel, the airflow that is a concern with
24 regard to ventilation?

25 A. In this case, we would like to send air up all

1 three of these entries. And if this one is blocked
2 off, it wouldn't matter because it would still go
3 through these two entries, which was not the case
4 because we had to maintain this outside entry, which
5 was enforced by MSHA, which required us to submit a
6 revision to make all those common from there out to
7 allow us to travel those other entries, which is kind
8 of what we wanted to do from the beginning on all
9 this. So if you have one entry blocked off, it makes
10 a difference in that entry. But you still have two
11 others that would be able to handle the airflow. And
12 with a fan that pulls as much as it does, then ---.

13 MR. SHERER:

14 Can I make a question here?

15 MR. MCGINLEY:

16 Sure, Mr. Sherer.

17 MR. SHERER:

18 You're indicating the headgate behind the
19 current longwall.

20 A. Uh-huh (yes).

21 MR. SHERER:

22 And you say there's three entries
23 available. Isn't the Number One entry caved?

24 A. Yes.

25 MR. SHERER:

1 So you have two entries?

2 A. Yes.

3 MR. SHERER:

4 Thank you.

5 BY MR. MCGINLEY:

6 Q. So Mr. Walker, getting back to my question. The
7 revision that was submitted to MSHA by you on December
8 14th, 2009, that revision was something that Route 3
9 Engineering and Performance Coal, that was their plan,
10 is that correct, to deal with the in-mine problems?

11 A. Yes, to allow us to travel an entry down a common
12 airway as opposed to another airway which was not
13 common at that time.

14 Q. And then that revision was approved on December
15 18th, 2009, according to the document you have before
16 you and your recollection; is that correct?

17 A. Yes.

18 Q. But that revision didn't work? Are you
19 remembering this more now?

20 A. I --- no, I don't remember it not working.

21 Q. Well, let me show you a document, a letter
22 submitted by Mr. Blanchard to Mr. Hardman of MSHA on
23 December 23rd, 2009, and see if this might refresh
24 your recollection about the circumstances at that
25 time.

1 WITNESS REVIEWS DOCUMENT

2 A. From this, it's saying that we couldn't do it
3 without using belt air in the face, which has nothing
4 to do with making that common on the back end.

5 So ---.

6 ATTORNEY AKERS:

7 Let him ask a question. I don't know, is
8 there a question outstanding?

9 MR. MCGINLEY:

10 I asked if that letter refreshed his
11 recollection with regard to the circumstances at the
12 time that related to the December 14th revision
13 submitted to MSHA.

14 A. If I could see the drawing that would go along
15 with this plan, which I said was the missing portion,
16 I could know fully whether --- I could note fully how
17 to answer your question. Because at some point MSHA
18 wanted us to not use belt air on the face, which we
19 had done, which was approved in the initial
20 ventilation plan and would have been allowed
21 throughout the whole panel --- or assumed to be
22 allowed throughout the whole panel. At some point
23 they decided that they didn't want us to use that any
24 longer, and therefore they wanted us to submit plans
25 where we showed now using belt air in the case. And

1 if that was involved in this plan, which is the part
2 that's missing, then that's the part that the Chris
3 Blanchard letter is referring to. Once we did that,
4 we could not keep the belt air going outby. It was
5 going to pull in due to the forces of building the
6 pressure on the fan.

7 BY MR. MCGINLEY:

8 Q. Of Bandytown fan?

9 A. Yes. So as it was originally approved and assumed
10 that we would be allowed to do through the whole
11 panel, which is how it was approved, we would have
12 been able to use belt air throughout the face, which
13 the belt laws came out and said it had to be approved
14 in the ventilation plan prior to us getting approval
15 on this plan.

16 Q. I think you're going pretty fast here for the
17 court reporter.

18 A. Oh, sorry. The initial plan was approved after
19 the belt laws had been modified --- or after the
20 regulations had been modified to require getting belt
21 air to be used in the face approved in your
22 ventilation plan. Therefore, it was approved in our
23 ventilation plan. And at some point they decided that
24 it wasn't good for us to do that, MSHA decided that,
25 and ---

1 Q. Changed the regulation?

2 A. --- they wanted --- they didn't change the
3 regulation. They changed their mind. They sent us a
4 letter and said that approval was temporary in that
5 case. And that was never mentioned anywhere in any
6 other writing until afterwards.

7 Q. Okay. But ---.

8 A. So if I had the map to go with this plan here, the
9 December 14th submittal, if it required reversing the
10 belt air, that's what the Chris Blanchard letter is
11 referencing. So if that is the case, then yes, that
12 was MSHA enforced, implemented, designed. Therefore,
13 it's not a plan that Performance Coal submitted of
14 their own volition, so ---. But I don't have that map
15 to verify that point.

16 Q. Well, let's assume that that --- the scenario you
17 described is true.

18 A. Okay.

19 Q. When you submitted the December 14th revision, did
20 you know that that revision wouldn't work?

21 A. We knew all along that if they wanted us to
22 reverse the belt air, it would be incredibly
23 difficult, if possible to do, due to the fan being
24 that --- at the back of the longwall. I mean, air is
25 going to want to go to that man, and we would be

1 trying to send it opposite that, back around the front
2 of this longwall panel. Once we got further up the
3 panel, it wouldn't be as hard because the distance
4 would be lessened. But at the point in December of
5 2009, we would have had to send air out by the belt
6 entry and all the way around whenever it could just go
7 through here and out the fan. So it would be
8 extremely difficult, if not impossible, to do at that
9 time.

10 Q. So why did you submit that revision if you knew it
11 was probably impossible to provide adequate
12 ventilation under that plan?

13 A. I can't answer that because we're hypothetically
14 talking about the --- the drawing even says that, so I
15 mean, I don't know.

16 Q. Well, let's assume that. Let's assume the
17 drawing ---.

18 A. I guess because that's what MSHA wanted and
19 otherwise we wouldn't be able to run. I mean.

20 ATTORNEY SEARS:

21 Now, you know, with regard to
22 hypotheticals, I mean, if you feel comfortable
23 answering it under the hypothetical ---. If you can't
24 answer ---.

25 MR. MCGINLEY:

1 It's not really a hypothetical. It's a
2 scenario that Mr. Walker has laid out. And I believe
3 that it's accurate.

4 ATTORNEY SEARS:

5 Okay. But he doesn't know for sure, and
6 you're asking him to testify as to actual knowledge as
7 opposed to something that's a hypothetical. And I'm
8 just saying that if you need additional documents, ---

9 MR. MCGINLEY:

10 I understand.

11 ATTORNEY SEARS:

12 --- then you know, ---

13 MR. MCGINLEY:

14 That's fine.

15 ATTORNEY SEARS:

16 --- he should be able to look at that
17 before actually giving an opinion about something.

18 MR. MCGINLEY:

19 Well, I'm not asking for an opinion.

20 ATTORNEY SEARS:

21 His opinion about whether or not it was
22 viable at that time.

23 BY MR. MCGINLEY:

24 Q. So why didn't the December 14th revision work?

25 ATTORNEY SEARS:

1 If you know, based upon ---.

2 A. Due to the influence of the longwall bleeder fan,
3 it was not possible to make the approved changes. The
4 longwall bleeder fan, being the Bandytown fan, would
5 not allow belt air to travel outby due to what we just
6 discussed, where it would be a longer distance
7 traveled instead of just going the shortest route out
8 of the mine.

9 BY MR. MCGINLEY:

10 Q. Did you know that, before you submitted the
11 December 14th revision, that that revision in the
12 ventilation plan as revised would not work?

13 A. As I just said earlier, we knew that it would be
14 extremely difficult, if not impossible, to force belt
15 air outby along this panel, and it would become easier
16 as we traveled farther along this panel. But
17 initially it would be impossible. That's why we
18 submitted the plan as it was and it was approved as it
19 was, until we were later forced to try and send it
20 outby, which we knew that it would be extremely
21 difficult, if not impossible, to do.

22 Q. Did you put those concerns about the December 14th
23 revision in writing and give them to MSHA?

24 A. Other than the Chris Blanchard, I don't know of
25 anything that was.

1 Q. There's nothing in the Chris Blanchard letter ---
2 what's the date of that?

3 A. December 23rd.

4 Q. Nothing there that talks about the previous plan?

5 A. Says the previous plan was attempted to be
6 implemented and due to the influence of the longwall
7 bleeder fan was not possible to make approved changes.
8 I mean, that pretty well says we tried it, it didn't
9 work, and here's what we would like to do instead
10 because we know that won't work, which was to send
11 belt air inby again, which is as it was ---.

12 Q. You're talking ---.

13 OFF RECORD DISCUSSION

14 BY MR. MCGINLEY:

15 Q. Internally you would have discussions about the
16 viability of the December 14th, 2009 revision; is that
17 correct? In other words, you were concerned that it
18 wouldn't work and you wouldn't have adequate
19 ventilation under the plan you submitted to MSHA; is
20 that correct?

21 A. We fully intended to be able to use belt air in
22 the face the entire length of that panel. Therefore,
23 we would have had discussions on any plan that we
24 would have said otherwise and said, this is not the
25 way we want to do it internally and externally.

1 Q. Well, you said we would have had discussions. Do
2 you remember having discussions?

3 A. I don't remember specific ones. But as I said
4 before, we don't submit anything to the agencies
5 unless we get the thumbs up. So I mean, we would
6 discuss it with ---.

7 Q. Do you submit things to MSHA that you think will
8 not work?

9 A. If they require us to do so.

10 Q. Do you have any correspondence, anything in
11 writing from MSHA requiring you to submit that
12 December 14th, 2009 ventilation plan revision?

13 A. Not as --- no, not specifically stating, other
14 than the letter where they said it was temporarily
15 approved and we need to find a way to make belt air go
16 outby, which I think was a November letter from them,
17 I think. I don't know. So that would have been ---
18 yes. So that would have been a letter in writing from
19 them saying that you need to do something to turn belt
20 air outby, which they told us that we would not get
21 anything approved until we showed it going outby,
22 which we tried to do and it didn't work. So yes, it
23 would be in writing. Again, it's a November letter.
24 I'm not sure.

25 Q. Well, it said it's up to you, Performance coal

1 Company, to decide how to ventilate this mine?

2 A. Not when they tell you how to do it. It's up to
3 you as long as you follow what we want.

4 Q. You cited some regulations in your December 14th
5 letter; is that correct?

6 A. Yeah, 215, 334, 364 and 384.

7 Q. What are those --- do you know what those ---?

8 A. Right off the top of my head, no. 215 would be a
9 roof control and 334 would be ---

10 MR. SHERER:

11 Bleeders.

12 A. --- bleeders and escapeways on the ---.

13 BY MR. MCGINLEY:

14 Q. So you have a copy of the regulations in your
15 office?

16 A. Yes.

17 Q. How often do you refer to them?

18 A. As needed.

19 Q. What's that mean?

20 ATTORNEY SEARS:

21 Well, ---.

22 MR. MCGINLEY:

23 He can answer.

24 ATTORNEY SEARS:

25 Well, I mean, if he can --- I mean, it's

1 kind of self-explanatory, but explain as needed, if
2 you can.

3 BY MR. MCGINLEY:

4 Q. How often is as needed? Frequently? Do you refer
5 to the regulations ---

6 A. I don't have ---.

7 Q. --- every day?

8 A. I don't have --- I mean, I don't have the whole
9 book memorized, no. But I mean, you have a general
10 understanding of all of it, and then if you have any
11 questions you refer to it. So that's as needed.

12 Q. Did you write the December 14th letter, Mr.
13 Walker, or did somebody else write it and you signed
14 it?

15 A. I wrote it, I guess. I mean, ---.

16 Q. Well, ---.

17 ATTORNEY SEARS:

18 You need to testify as to any specific
19 knowledge you have. Okay. So yes, no, or if you
20 don't remember, tell him you don't remember. Don't
21 guess. Don't speculate. He wants to know what the
22 facts are. And if you can provide the facts, provide
23 the facts. And if you can't, just tell him, okay. I
24 mean, we're here to help out, but we're here to help
25 with the facts, not with speculation.

1 A. I was not --- I know for a fact I was not provided
2 this letter, and I just signed it. Now, as far as
3 every word in this being my own input into it, I can't
4 say that, but you know, I would say most of it ---
5 definitely most of it would be, I guess, but ---.

6 BY MR. MCGINLEY:

7 Q. Is it common for letters that you sign to have
8 others draft the letters?

9 A. The letters? On some things we do, like pump
10 permits and such to the State and that type of thing
11 where it's just here you go, three copies of this.
12 People draft it for us. But as far as vent revisions,
13 no. Or something is explained, no. I guess that's
14 what I'm trying to say.

15 Q. Okay.

16 A. If it's just a please find three copies of the
17 attached permit, then somebody --- we have a form
18 letter that somebody else will print out a lot of
19 times and I'll sign it and such.

20 Q. So the consequence of the failure of the December
21 14th ventilation plan revision was that the mine had
22 to shut down for a few days and there was no
23 production; do you recall that?

24 A. Not specifically, no, but I guess reading from
25 what the Chris Blanchard letter says, then it would

1 be, yeah, so ---. I mean, I'm not informed daily of
2 whether the mine is running or not.

3 Q. Did you know that Chris Adkins went to the
4 District 4 office hand carrying that December 23rd
5 letter?

6 A. No.

7 Q. Chris Adkins, was he involved with ventilation
8 plans at UBB a year before the explosion?

9 A. I didn't have any dealings with him.

10 Q. Did he ever come to your office?

11 A. No.

12 Q. The December 23rd letter includes another revision
13 of the ventilation plan; is that correct?

14 A. It appears to, yes.

15 Q. Do you recall that?

16 A. I don't, no.

17 Q. Do you know how the problem was solved at that
18 time, the problem as explained in Mr. Blanchard's
19 December 23rd, 2009 letter?

20 A. It appears that we would have done the portions
21 listed in here. The below procedures would be
22 followed during the time when belt air is being
23 utilized in the face. So it would have used belt air
24 in the face and followed these procedures, and it was
25 approved by them, so that would have been what we

1 would have done.

2 Q. Did you write that letter, the December 23rd,
3 2009 ---?

4 A. This one?

5 Q. Yes.

6 A. No.

7 ATTORNEY SEARS:

8 Let the record reflect that he was
9 reading from the letter as opposed to, I think,
10 testifying from direct knowledge.

11 A. Yes.

12 MR. MCGINLEY:

13 We probably should make copies of these
14 and put them in the record. Let's cumulatively call
15 them what exhibits?

16 ATTORNEY HAMPTON:

17 Three.

18 MR. MCGINLEY:

19 Exhibit Three.

20 (M. Walker Exhibit Three marked for
21 identification.)

22 BY MR. MCGINLEY:

23 Q. Did you work on the revision that was submitted on
24 December 23rd to MSHA?

25 A. You mean this one? No.

1 Q. Who would have worked on that? Do you have any
2 idea?

3 A. No. Chris Blanchard, I guess, would be the one
4 that signed it, so I assume he would ---.

5 Q. Is he a mine engineer?

6 A. Yes.

7 Q. A PE?

8 A. Yes.

9 Q. There's something else Mr. Blanchard says there
10 about submitting a long-term ventilation plan.

11 A. Uh-huh (yes).

12 Q. Can you read that sentence?

13 A. In addition, within 30 days of approval, a
14 long-term ventilation plan will be submitted to your
15 office, which will show long-term solutions to allow
16 belt air to travel outby as well as to open more
17 intake air courses. Was that too fast?

18 Q. Pretty fast.

19 ATTORNEY SEARS:

20 Was that the sentence you were wanting to
21 be read?

22 MR. MCGINLEY:

23 That's it.

24 BY MR. MCGINLEY:

25 Q. So when was the long-term ventilation plan

1 submitted? When within that 30 days; do you know?

2 A. I don't know.

3 Q. Do you know if it was ever submitted?

4 A. No.

5 Q. It wasn't submitted, was it?

6 A. I don't know.

7 Q. Who would know that, the answer to that?

8 A. MSHA, I guess, would be the one that would know.

9 I mean, ---.

10 Q. Well, who in your office would know when the
11 long-term ventilation plan was submitted, or if it
12 wasn't, why it was not submitted?

13 ATTORNEY SEARS:

14 If you know.

15 A. I don't know, so I mean, ---.

16 BY MR. MCGINLEY:

17 Q. Well, there are only a few people. Who typically
18 would be involved in such a submission?

19 ATTORNEY SEARS:

20 Are you asking him to speculate as to who
21 would know?

22 MR. MCGINLEY:

23 No. I'm asking him based on his
24 experience.

25 ATTORNEY SEARS:

1 Based on ---.

2 A. Based on my experience, ---.

3 MR. MCGINLEY:

4 Based on his questions.

5 A. Based on my experience, the president would
6 normally be the one to give the thumbs up or thumbs
7 down on who --- I would say Chris Blanchard would be
8 the one who would know for certain.

9 BY MR. MCGINLEY:

10 Q. People in your office would --- the engineers, you
11 and the other two would draw up that plan and would
12 work on it, one or the other or all of you; isn't that
13 correct?

14 A. Generally, yes.

15 Q. So the people that would know would be either you
16 or the other two fellows, the engineers that you work
17 with, isn't that correct?

18 A. One of them, if it was done, would know ---

19 Q. Okay.

20 A. --- generally, but ---.

21 ATTORNEY SEARS:

22 Go ahead and finish what you were going
23 to say.

24 A. But I mean, Chris Blanchard had done this one as
25 well and I didn't do it, so I mean, I can't say for

1 certain whether one of us three would have done it.

2 BY MR. MCGINLEY:

3 Q. Are you saying Chris ---?

4 A. Generally we would have.

5 Q. Are you saying Chris Blanchard prepared the
6 ventilation plan that was submitted on December 23rd,
7 2009 to MSHA?

8 A. No. I'm saying Chris Blanchard signed this. I
9 didn't prepare it, so I don't know who prepared it.

10 Q. So it's likely ---?

11 A. I'm assuming that since he signed it, he would
12 have been the one that did it, so ---.

13 Q. Did what?

14 A. Prepared this plan that was submitted.

15 Q. Are you saying that none of the three engineers at
16 Route 3 Engineering would have been involved with the
17 December 23rd, 2009 submission?

18 ATTORNEY SEARS:

19 And Professor, I think his testimony has
20 been he just doesn't know.

21 A. No, I'm not saying that.

22 ATTORNEY SEARS:

23 Hold on a second. Hold on. You've kind
24 of asked the same question in a lot of different ways.
25 I think the answer is he doesn't know. You're asking

1 him to speculate based on his experience who might
2 have been ---. I think he tried to answer that, but
3 he just doesn't know who was involved in that. He was
4 not involved in that.

5 MR. MCGINLEY:

6 He can say that, Mr. Sears.

7 ATTORNEY SEARS:

8 I think he has said it, and you keep on
9 asking the same question and getting the same
10 question, and you don't like the response, and ask it
11 a different way, and I understand that.

12 MR. MCGINLEY:

13 With all due respect, Mr. Sears, I'm
14 asking different questions, and I'm entitled to an
15 answer to each one.

16 ATTORNEY SEARS:

17 They're different questions but getting
18 at the same thing, so you've ---.

19 MR. MCGINLEY:

20 Well, Mr. Sears, you are also offering
21 answers to Mr. Walker.

22 ATTORNEY SEARS:

23 I don't think I'm offering any answers.

24 I think I'm stating what his testimony has been.

25 MR. MCGINLEY:

1 The record will speak for itself.

2 ATTORNEY SEARS:

3 Yes. If you have a different question,

4 let him know. If it's the same answer ---.

5 A. I did not prepare the ventilation revisions. I
6 cannot speak as to anyone else in my office as to
7 whether they prepared this ventilation revision. And
8 I can't speak as to Chris Blanchard, whether he
9 prepared this ventilation revision. Therefore, I can
10 only assume, due to the fact that Chris Blanchard
11 signed this letter, he prepared it.

12 BY MR. MCGINLEY:

13 Q. But you don't know that?

14 A. That's why I'm assuming that, due to the fact that
15 he signed it.

16 Q. I don't want you to assume. The answer is you
17 don't know; correct?

18 A. That's what I said the first three times. I don't
19 who prepared it.

20 Q. Let me ask you another question, sir. Did Mr.
21 Blanchard ever prepare any other ventilation plan
22 revisions, to your knowledge?

23 A. Not to my knowledge, no.

24 Q. So this is the only one that you're assuming that
25 he prepared?

1 A. Correct. And I would say ---.

2 Q. So over five years of your work there at Route 3
3 Engineering?

4 A. And I would also say that due to the fact that
5 December 23rd would probably be a lot to do with that,
6 because that's, you know, right before Christmas,
7 normally vacation time and holiday. And to be honest,
8 I wasn't even at work December 23rd, so I would say he
9 would have had a hard time finding someone other than
10 himself to do it at that --- on December 23rd. So I
11 mean, --- I generally don't work Christmas. It's not
12 common to do a ventilation revision on December 23rd
13 in my five years' experience. But that is an
14 assumption as well.

15 Q. Nobody told you that the mine was shut down for
16 several days ---

17 A. No.

18 Q. --- because of the ventilation --- lack of
19 ventilation under the December 14th, 2009 submission?

20 A. No.

21 Q. You never knew that?

22 A. No.

23 Q. You testified in answer to some questions that you
24 learned about violation notices issued by MSHA if they
25 had something to do with your work; is that correct?

1 A. Yes.

2 Q. What kind of violations in the last year before
3 the explosion were you aware of that had to do with
4 your work?

5 A. I don't know of any specifically. I was referring
6 to any mapping-type ones, that sort of thing, anything
7 that generally would require a revision other than
8 just, you know, maybe something was done wrong and was
9 cited, therefore we could correct the problem there.
10 so I would say anything that would require, you know,
11 the engineering office's output, you know, on a map or
12 whatever would be the ones we would be made aware of.
13 I don't know of any specifically.

14 Q. So you don't know of really anything specifically
15 about MSHA's citation of violations related to
16 ventilation in the Upper Big Branch Mine in the year
17 preceding the explosion?

18 A. Not specifically, no.

19 Q. You said you got copies of violations; is that
20 right?

21 A. Yeah.

22 Q. And do you have a file of those?

23 A. I don't personally. We would have it ---.

24 Q. And when I said you, I Meant in the office.

25 A. Yeah. Generally, any ones we have, we would

1 normally keep, yes.

2 Q. Did you look at each MSHA violation that came to
3 your office?

4 a. Personally, no. No.

5 Q. Did you look at any of them?

6 A. I don't know of any specific one that I would
7 have, no.

8 Q. So is your answer you did not look at any of the
9 notices of violation issued by MSHA relating to
10 ventilation that came into your office?

11 A. No. I'm saying I don't recall a specific one that
12 I would have looked at.

13 Q. Was it your practice of looking at each MSHA
14 Notice of Violation that came into your office or was
15 it not your practice, as a general rule?

16 A. For every mine it's not my practice, no.

17 Q. I'm just asking about UBB.

18 Q. No, not at UBB, no, I wouldn't have looked at
19 every one.

20 Q. Was it your practice to look at them as they came
21 in?

22 A. At UBB?

23 Q. Right.

24 A. No.

25 Q. It wasn't your practice to look at MSHA violations

1 relating to violation at any of the other mines that
2 fell within your responsibility?

3 A. Yes, it would have been on that, yes.

4 Q. It would have ---?

5 A. It would have been my practice to look at them on
6 the other mines in my responsibility, yes.

7 Q. And UBB?

8 A. No.

9 Q. Because they weren't --- UBB was Eric Lilly's?

10 A. Under most circumstances, yes.

11 Q. So do you know whether Eric Lilly looked at the
12 Notice of Violation?

13 A. I don't know. I would assume he did because ---.

14 Q. Did he ever --- go ahead.

15 A. Like I said before, anything that would require
16 our input, somebody would have had to have done it.
17 And Eric would have been that person, so I --- I can
18 assume that he did because something would have been
19 done or would have been required to be done, so ---.

20 Q. Well, when you worked on UBB, which you did on
21 occasion, ---

22 A. Yes.

23 Q. For example, you submitted a ventilation plan
24 revision to MSHA on March 9th, 2010, at a time when
25 MSHA issued a closure order and the mine was shut

1 down, at least the longwall was shut down. Do you
2 remember that?

3 A. I believe that was the one I discussed earlier on
4 the tailgate side, I think.

5 Q. So you remember that?

6 A. I believe so. I think that's the one you're
7 referencing, yes.

8 Q. Did you read the violation that MSHA issued for
9 that one?

10 A. Probably not at that time, no.

11 Q. To what extent are ventilation maps important to a
12 ventilation plan?

13 A. I'm not sure how to answer that.

14 Q. What's the importance of a map that is submitted
15 as part of a ventilation plan?

16 A. I mean, it describes what you're doing. A picture
17 is worth a thousand words, as they say.

18 Q. Okay.

19 A. I mean, it --- it's, I guess, an illustration of
20 what will be done. Because if I'm going to change
21 something in this entry, it's easier to just, you
22 know, make a notation and say, we're going to change
23 this, circle a stopping to be removed, as opposed to
24 say we'll remove a stopping at Spad 22557 and Spad
25 22662. We can just draw a circle on a map and say

1 these stoppings will be removed. So I mean, they are
2 basically the means to convey what you're planning on
3 doing without having a 50-page ---

4 Q. Sure.

5 A. --- document to show it.

6 Q. But you don't always make those changes on a mine
7 map? You start with a mine map and you draw changes
8 on the map and then it goes to the technician and he
9 inputs the changes into the computer, and then a map
10 comes out. You print it out; is that right?

11 A. Yeah, I think. I'm not really sure what
12 you're ---.

13 Q. Well, how do you make a mp? You know, if you're
14 going to do a ventilation change --- you've got an
15 existing map; right?

16 A. Yes.

17 Q. Okay. How do you, in your office, accomplish
18 ultimate result of a different map showing ventilation
19 changes?

20 A. We have a mine map file, which is the most
21 up-to-date, most current map of what is in reality at
22 that time. We would start from that map and we would
23 save it off as another map, so we wouldn't make the
24 changes on that map. So it's still what's actually
25 there. Do you understand what I'm saying there?

1 Q. Yes.

2 A. So we would save it off and we would go through
3 and, you know, do the notations, draw things.

4 Q. By hand?

5 A. No, on the digital form of it. We would make the
6 notations on that digital form and print that map out,
7 and that would be the drawing for that revision. So
8 we would start from the mine map, the official mine
9 map --- or not the official, but the current,
10 up-to-date mine map that we would have on our computer
11 system, and then we would make the notations on that
12 map, but save it off at another location, too, to keep
13 it separate from that so you're not messing up the map
14 that you got. You know what I'm saying there? So you
15 don't get something that's to be done confused with
16 what is actually there, I guess.

17 Q. Yeah, I understand. So are you saying that in the
18 process of generating a ventilation map that revised a
19 previous ventilation plan, that nobody ever writes on
20 it handwritten symbols and, you know, this stopping or
21 the air goes this way before it's inputted into the
22 computer?

23 A. It depends on the scope of it. I mean, from a map
24 this size, you can't really look on a computer screen
25 and get the whole picture. So I mean, oftentimes we

1 print out a copy of it, run it through, hand draw it
2 on there or something maybe and then add that to it,
3 yes.

4 Q. Don't management officials have input and make
5 changes themselves, draw on these maps where they want
6 revisions to take place?

7 A. Yeah, they would normally --- they don't have
8 access to our digital ones, ---

9 Q. Right.

10 A. --- but yes, they would have --- we generally
11 provide them with maps on a regular basis. They have
12 wall maps they keep in their offices and such, and
13 then they have section prints and so on as needed, as
14 they ask for them. And they oftentimes will draw
15 up --- say, you know, want us to look at --- you know,
16 put projections over here or something along those
17 lines. And then we would take that and put it in the
18 CAD and print it out and such. So yes.

19 Q. So is it a fact that the --- when ventilation
20 changes are made, major ventilation changes are made,
21 the decisions about those do not come from you, the
22 other two engineers, and Route 3, they come from
23 management, the president, mine superintendent, mine
24 foreman?

25 A. The final decision would come from us, but

1 oftentimes, you know, as you would --- if you do
2 something and say, no, that won't work, do something,
3 say that won't work, then you know, --- if we can see
4 something that doesn't work, we'll make changes to it
5 and give it back to them for their okay again, but the
6 final decision would lie into their hands. But as far
7 as them coming up with every idea from scratch and
8 conveying it to us, it's not like that.

9 Q. Well, how much input do they have?

10 A. It depends on the president mostly, but a lot of
11 times it would be just, you know, if you want
12 projections out here you just draw a box, and then you
13 would go do the calculations and such, get the center
14 sizes and so on. Sometimes it would be actually
15 drawing out projections line by line as shown here.

16 Q. And they would be drawn not by you but by
17 management?

18 A. Yeah, take a scale and scale out 50 by 60.

19 Q. You said sometimes they'd say, well, that won't
20 work. Are you talking about management people would
21 look at your proposal and say that won't work or who's
22 saying that won't work?

23 A. Us or them. I mean, basically you always have
24 more than one set of eyes look at something. So I
25 mean, if we see something that, you know, may be

1 something that they thought would be a good idea
2 wouldn't work because you've had to do something,
3 build an overcast here or do something in addition to
4 what they had, we would say, you know, that's not
5 going to work. We'll going to have to build a set of
6 overcasts here to get that across here or something
7 like that. Or if we would draw something, they'd say,
8 no, that won't work, we'll do this. Or the
9 superintendent would say, no, we can't do that. You
10 know, there's --- the height in this area won't allow
11 us to do that, so you know, we should move it over one
12 break or something, so ---.

13 Q. How often is cost a factor in revising a
14 ventilation plan? I mean, the construction of doors
15 versus overcasts, I mean, is that discussed?

16 A. No. The only time really cost comes into effect
17 would be large projects, I mean, as far as just a ---
18 you know, an overcasts versus a door, no, it doesn't
19 come into effect or something along those lines. But
20 as far as, you know, a shaft or something, something
21 like that, then cost becomes a fact, you know. A lot
22 of times we've done 16-foot shafts versus 14-foot
23 shafts because the cost differential is not worth ---
24 I mean, it's not worth not doing it.

25 Q. So why do you have so many doors at UBB instead of

1 overcasts? Whose decision was that?

2 A. I don't know.

3 Q. From what you were saying, it's engineering's, is
4 that right, or it's somebody else's decision?

5 A. I don't know that I said that, but ---.

6 Q. I'm sorry. I don't want to put words in your
7 mouth. Whose decision was it to have so many doors at
8 UBB, especially since you've been there. There have
9 been a lot of doors constructed; right?

10 A. I don't know that I said that either. I mean, I
11 don't know what a lot of set of doors are. But as I
12 said before, generally it's looked at by all those
13 involved and everyone will put their input into it.
14 So I can't say as to engineering said build this set
15 of doors, the superintendent said build this set, the
16 president said build this set, but it would be
17 generally one of the three. I mean, it doesn't make
18 any difference.

19 Q. Well, who has the final say?

20 ATTORNEY SEARS:

21 Final say as to?

22 BY MR. MCGINLEY:

23 Q. On the construction of doors versus --- airlock
24 doors versus overcasts?

25 A. On that, I would say generally it was the

1 superintendent or the president.

2 Q. So it's not the engineers that make the decision
3 in that regard?

4 A. As far as the doors versus overcasts, no. I
5 mean, --- no.

6 Q. No what? I'm sorry.

7 A. It's not the engineers' final decision on whether
8 doors versus overcasts.

9 Q. What decisions are the engineers --- Group 3
10 Engineers' final --- your word is the final say?
11 Anything?

12 A. Not really, no.

13 Q. So anything you do in terms of --- let's say
14 ventilation, you've got other responsibilities to, but
15 in terms of a ventilation plan, the final say is
16 somebody in management; is that correct?

17 A. More or less, yes. I guess as an example, we had
18 previously had sign-off sheets where we would have
19 president, vice-president, superintendent, mine
20 foreman, safety director and all of those people would
21 sign off on ventilation revisions and stuff. So
22 generally more than one person looks at it, but as far
23 as the actual final call, I guess it would be the
24 president's call because, I mean, basically he's my
25 boss, so I would do what he would ask me to.

1 Q. You'd do whatever the president asked you to do?

2 A. Well, ---.

3 Q. Essentially. That makes sense.

4 A. Not jump of a bridge, you know. I mean, ---.

5 Q. No, no. I understand. I wasn't suggesting that.

6 A. I wouldn't do anything without getting his
7 permission to do it. I wouldn't make a judgment call
8 on whether we should do this or do that without
9 getting his --- not permission but his ---.

10 Q. Okay.

11 A. Okay, yeah.

12 Q. So what about these sheets? Are you not doing the
13 sheets where there's a lien of authority that signs
14 off on ventilation changes?

15 A. No.

16 Q. You're not doing that anymore?

17 A. Not really, no.

18 Q. When did you stop doing that?

19 A. I think since the --- I guess since the explosion
20 at UBB, I think they were wanting to go back to doing
21 it, but I have never really been forced to do that, I
22 mean, as a definite you have to do this type of thing,
23 so ---. I mean, we would always get the president's
24 approval and we would take it to the superintendent,
25 but we wouldn't necessarily get them to sign off the

1 sign-off sheet on it, no.

2 Q. So even if they didn't sign off on it, they
3 approved it?

4 A. Yeah. We would at least get verbal approval on
5 it.

6 Q. And that was just the standard practice that
7 you ---

8 A. Yeah.

9 Q. --- were engaged in with regard to ventilation
10 plans and revised ventilation plans at UBB?

11 A. Yes.

12 Q. Well, where were these sheets? At some point
13 there must have been sheets where people signed off.

14 A. It's not --- like on a map or something you would
15 have --- people would sign off on.

16 Q. But the lack of a signature doesn't mean that ---

17 A. No. It was just ---.

18 ATTORNEY SEARS:

19 Let him finish his question.

20 BY MR. MCGINLEY:

21 Q. --- doesn't mean that the management people that
22 you just mentioned, doesn't mean that they hadn't seen
23 it and hadn't approved it, they --- you went through
24 the process even if they didn't sign it?

25 A. Correct.

1 Q. And who all saw it, the superintendent ---?

2 A. Just off that, it would --- the president and
3 vice-president I think was on it, the safety director
4 normally and superintendent and mine foreman I think
5 were the ones that were on it.

6 Q. Who was the safety director at UBB?

7 A. Berman Cornett.

8 Q. Did he know anything about ventilation?

9 A. Yeah. I mean, he was the superintendent for a
10 while before and all of that, so ---.

11 Q. Did you know about the MSHA citation for air
12 reversal that went on for three weeks --- I think it
13 was January 2010?

14 A. Not specifically, no.

15 Q. Did you know about it generally?

16 A. No, not really. I mean, ---.

17 Q. You never heard of it before I mentioned it here?

18 A. I don't know any details on it. I mean, I ---.

19 Q. Well, what do you know about it?

20 A. I guess just that there was something about it. I
21 mean, ---.

22 Q. What do you know?

23 A. Nothing about it.

24 Q. Okay. You just know ---.

25 A. I don't know anything about, I'll say.

1 Q. Except that there was an air reversal that went on
2 for three weeks at Upper Big Branch in the beginning
3 of 2010. You know that?

4 A. No, I don't know that. That's --- no, I don't
5 know that.

6 Q. Do you know anything about any air reversals at
7 UBB in 2010 or in the last year from before the
8 explosion?

9 A. No.

10 Q. Nobody ever talked to you about that?

11 A. No.

12 ATTORNEY HAMPTON:

13 Do you have much more? Should we take a
14 break now?

15 MR. MCGINLEY:

16 Yeah, let's take a break.

17 SHORT BREAK TAKEN

18 BY MR. MCGINLEY:

19 Q. Mr. Walker, how long have you had the red hat
20 certification?

21 A. I guess I took the test the first time --- well,
22 I've only taken it one time, but I took the test a
23 year-and-a-half ago or so, I think.

24 Q. So you were never in Massey mines up until that
25 time, while you've been working there as an engineer?

1 A. Well, I guess as the white hat or whatever I guess
2 you would ---.

3 Q. I'm sorry?

4 A. As the technical --- I never worked in them, no.

5 Q. Did you go in them?

6 A. Yes.

7 Q. How often?

8 A. Not very often, no. Probably every few months, I
9 think.

10 Q. You basically had seven mines that you were
11 primarily in charge of?

12 A. Five, I guess.

13 Q. Five, okay. And you went in those once every ---
14 each of them once every three months?

15 A. No, not specifically each of them, but ---.

16 Q. So far this year, how many times have you been
17 underground at any mine?

18 A. Probably twice.

19 Q. Twice. How about last year?

20 A. I don't recall.

21 Q. Just ---.

22 A. Four probably.

23 Q. Four?

24 A. I'd say about once every three months or so.

25 Q. Okay. So in 2009 and up to this point in 2010,

1 you've probably been underground six times. How many
2 times at UBB?

3 A. None.

4 Q. None?

5 A. No.

6 Q. How many times have you been at UBB since you've
7 --- underground at UBB since you've been working for
8 Massey as an engineer?

9 A. I've never been underground at UBB.

10 Q. Never been underground?

11 A. Never been underground at UBB.

12 Q. Massey has stated publicly that the company has
13 requirements that exceed federal and state
14 requirements in a number of areas. Are you familiar
15 with that?

16 A. Somewhat. I mean, I --- I've heard that statement
17 made, yes.

18 Q. Mr. Blankenship said it in testimony before the
19 United States Senate in May. He was talking about UBB
20 and about Massey.

21 A. Uh-huh (yes).

22 Q. So you've heard that statement. Have you heard
23 Mr. Blankenship make that statement?

24 A. No.

25 Q. Are there any Massey ventilation requirements that

1 exceed MSHA ventilation requirements?

2 A. I don't really know how to answer that. I mean,
3 there are things that we do above and beyond that.

4 That is not necessarily a requirement, I guess.

5 Q. Above and beyond what?

6 A. Above and beyond what the law would require.

7 Q. Okay. What are they with regard to ventilation?

8 A. One example is 20,000 in the last open break.

9 Q. 20,000 cubic feet?

10 A. CFM, yes, for each miner section. That's each
11 one, so ---.

12 Q. What's another one?

13 A. I don't know.

14 Q. Is that the only one that you know about with
15 regard to ventilation?

16 A. Well, like I said before, I don't know of any
17 requirements necessarily. I mean, we don't have a
18 book of ventilation requirements, so there's no way to
19 say.

20 Q. So how did that --- what does Massey do that ---
21 other than the 20,000 at the last open crosscut, that
22 is over and above MSHA requirements?

23 A. It would be on a case-by-case basis again.

24 Q. Give me an example.

25 A. Fan citations. A lot of times we would take a fan

1 that would only do 100,000 and we would put one on
2 that would do twice as much, so you would have more
3 air, you know, things like that.

4 Q. Did that happen at UBB?

5 A. Yeah, that was one of them.

6 Q. Which fan?

7 A. The Bandytown fan. The size is larger than
8 required.

9 Q. So you believe that the Bandytown fan size is
10 larger than what ---?

11 A. The minimum that would be required to pull the
12 amount of air across the longwall that would be
13 required.

14 Q. Okay. But what's another example of Massey going
15 beyond ---?

16 A. I don't know.

17 Q. You don't know?

18 ATTORNEY SEARS:

19 Just so we're clear, I mean, he's not the
20 corporate rep for Massey to be testifying as to this.
21 I mean, you're not asking him in that capacity, just
22 on what he knows; right?

23 MR. MCGINLEY:

24 Of course.

25 ATTORNEY SEARS:

1 I mean, he's not ---.

2 MR. MCGINLEY:

3 Wasn't that the point you were making
4 earlier, Mr. Sears?

5 ATTORNEY SEARS:

6 What was that?

7 MR. MCGINLEY:

8 We just want the facts here.

9 ATTORNEY SEARS:

10 Right. Yeah. I mean, but he's not the
11 --- you're not expecting him to be the spokesman for
12 Massey on this issue.

13 MR. MCGINLEY:

14 I'm asking him what he knows.

15 ATTORNEY SEARS:

16 Okay. Great.

17 A. I'm sure there are other instances, but I mean, it
18 would be a case-by-case thing on that. So I
19 mean, ---.

20 BY MR. MCGINLEY:

21 Q. You can't remember any cases other than the
22 Bandytown fan size; is that correct?

23 A. Correct. Right now, yes. That doesn't mean that
24 there aren't any, but I don't know of any right off
25 the top of my head right now, no.

1 Q. Well, how do you learn about these Massey over and
2 above government standards? Did you take a course or
3 did somebody train you in the Massey --- this Massey
4 going beyond what the law requires?

5 A. No. That's what I was saying earlier. I mean, on
6 a case-by-case basis. We don't have a book of
7 ventilation requirements that we would do where it
8 says the law required this, Massey requires this above
9 and beyond the law, therefore you must do this. There
10 exists no such thing. It's just a mental thing and
11 practice. If you would be required to do something,
12 you would try to do it more safely.

13 Q. Well, Mr. Blankenship's testimony under oath
14 before the United States Senate in May, he said, today
15 Massey Energy's safety program is more than 120 rules
16 and equipment enhancements that exceed legal
17 requirements. Do you have any idea what he was
18 talking about in that statement?

19 A. Not specifically. I mean, I don't really deal a
20 whole lot with equipment, so I don't know what --- I
21 Mean, there are --- I know Massey had worked on
22 developing a proximity alarm detection system thing
23 for their miners, to keep people out of the red zone
24 to prevent miner operators from being injured. I know
25 that's one example. I mean, that's a question for Mr.

1 Blankenship.

2 Q. Well, he says, 120 rules and equipment
3 enhancements. Do you know of any of the 120 rules
4 that exceed legal requirements?

5 A. Not right offhand, no.

6 Q. Well, you don't know them at all; right, because
7 you never had any training?

8 A. Not on the 120 rules and --- or laws and equipment
9 things. No, I've never had any training.

10 ATTORNEY SEARS:

11 But there's a couple questions there,
12 Professor. One of those was you don't know them at
13 all, and I don't think he's testified to that.

14 MR. MCGINLEY:

15 Okay. Well, let me ask him that
16 question.

17 ATTORNEY SEARS:

18 I think his testimony was that he
19 doesn't --- he can't remember anything off the top of
20 his head right now. Because there were two questions
21 there.

22 MR. MCGINLEY:

23 That wasn't my understanding. I'm glad
24 you brought that up, so let me ask.

25 BY MR. MCGINLEY:

1 Q. Have you had any training --- do you have any
2 knowledge of 120 rules and equipment enhancements that
3 exceed legal requirements that Massey Energy has
4 instituted?

5 A. I don't know specifically what ones he would be
6 referring to. And there's --- there is a, I guess, a
7 P2 handbook which probably would contain some of what
8 he is referring to, which deals more with the
9 production side of things with the mine foreman,
10 section bosses, that type of thing, which would
11 include the equipment and all that stuff, which is
12 more than likely what he's referring to. I personally
13 have had no training in that, but they do conduct P-2
14 training for mine foremen and such. I don't know of
15 any specific, however he phrased it, rules and
16 equipment things that ---.

17 Q. 120 rules and equipment enhancements that exceed
18 MSHA requirements?

19 A. I've never been trained specifically in those 120.

20 ATTORNEY SEARS:

21 Could you say that again?

22 MR. MCGINLEY:

23 Let's go off the record for a second.

24 OFF RECORD DISCUSSION

25 MR. MCGINLEY:

1 Let me withdraw what question was
2 pending.

3 BY MR. MCGINLEY:

4 Q. Mr. Blankenship's May testimony before the United
5 States Senate, he said, today Massey Energy's safety
6 program has more than 120 rules and equipment
7 enhancements that exceed legal requirements. Is P-2
8 part of Massey Energy's safety program?

9 A. Well, S-1 is the actual safety program, I guess,
10 but ---.

11 Q. So he's talking about S-1, not P-2; is that fair?
12 Is that what it sounds like to you?

13 ATTORNEY SEARS:

14 If you know.

15 A. That is more a production-oriented question, which
16 would be a question for the superintendent, section
17 boss, miner operator.

18 BY MR. MCGINLEY:

19 Q. You don't know any rules or equipment
20 enhancements, other than the Bandytown fan size, that
21 go beyond exceeding the legal requirements; is that
22 correct?

23 ATTORNEY SEARS:

24 He's already answered that.

25 A. No.

1 BY MR. MCGINLEY:

2 Q. What does S-2 mean --- I'm sorry, S-1 mean?

3 A. Safety one ---.

4 Q. I'm sorry?

5 A. Safety is the first, I guess, priority on that.

6 Q. What else does S-1 mean, do you know, other than
7 sort of the same safety first?

8 A. I don't know what you ---.

9 Q. I can't hear you.

10 A. I don't know.

11 Q. You don't know what S-1 means other than it means
12 safety first?

13 A. No.

14 Q. How do you know if revisions on a ventilation map,
15 for example putting in airlock doors, overcasts,
16 actually are constructed? Is there any system of
17 verification?

18 A. The mine foreman or superintendent ---

19 Q. What do they do?

20 A. --- verify. They verify that it's done.

21 Q. They verify to you?

22 A. Yeah, or whoever would do the --- you mean, how?

23 They would either mark up a map or say it's built here
24 or however.

25 Q. So -- go ahead.

1 A. We built two overcasts at Break 22. You say,
2 okay, I've got two overcasts built there.

3 Q. You've already got a map that shows there's doors
4 there, right, or do they build them first and then
5 they say, put them on the map?

6 A. Going back to what the --- I guess the steps in
7 preparing a ventilation revision, we would have a
8 ventilation revision saved off separately that would
9 show proposed controls or whatever overcasts to be
10 built in certain locations. Once they're verified,
11 they would go from that to the mine drawing, which is
12 the current up-to-date digital copy of the mine.

13 Q. When you say verified, you mean constructed or
14 verified in the sense of this is the way we're going
15 to do it?

16 A. Verified in construction.

17 Q. Have you ever --- are you aware of any instances
18 where construction has been verified in terms of
19 ventilation plan, doors, stoppings, overcasts and that
20 verification was erroneous, that what had been
21 verified actually had not taken place?

22 A. That what they told us was done?

23 Q. (Indicates yes).

24 A. I don't know of any instances.

25 Q. Never?

1 A. No.

2 Q. Did Chris Blanchard --- did he come in and talk to
3 Eric Lilly to interchange about ventilation plans, to
4 your knowledge?

5 A. Eric was, I guess, stationed at the mine, so he
6 was not in the office.

7 Q. Okay.

8 A. Once he was assigned to UBB, I guess he was at the
9 actual mine office.

10 Q. Okay.

11 A. So I don't know of any ---.

12 Q. Did he only have UBB as his responsibility?

13 A. At certain times, yes. I mean, he had worked on
14 stuff prior to and then he kind of just started doing
15 UBB by itself.

16 Q. What period, the last year or last two years?

17 A. Within the last year-and-a-half, I would say,
18 roughly.

19 Q. How was it that you got involved in doing work on
20 UBB, for example, the December 14th submittal, the
21 March 9th, 2010 submittal?

22 A. It's kind of like I said earlier. We kind of help
23 each other out. If Eric was unavailable, on vacation,
24 sick or off doing something else, I mean, wherever he
25 would be and he wasn't available to do it, we would

1 help out and do other things.

2 Q. Did you ever work with Eric when he was available
3 on UBB ventilation issues?

4 A. Yes.

5 Q. Why would that be?

6 A. Just like I said earlier, to having a second set
7 of eyes looking at something. I mean, would kind of
8 just, can you check --- I mean, we do it between, I
9 guess, the three of us. We would say, you know, hey,
10 take a look at this ventilation revision, I'll look at
11 the one you're working on, and we'll just look through
12 it and see if you've got any ideas or whatever.

13 Q. Did you ever strenuously disagree with MSHA
14 officials about ventilation at UBB?

15 ATTORNEY SEARS:

16 Do you need an explanation what he means
17 by strenuously?

18 A. Yeah, I think I do. What do you mean by
19 strenuously disagree?

20 BY MR. MCGINLEY:

21 Q. Do you know the word strenuous?

22 A. I do, but I don't know what you consider ---
23 whether I, you know, just didn't agree with him and
24 kept it to myself or if I physically had a fight with
25 him, if I met him out in the parking lot. I mean,

1 there's different degrees to that.

2 Q. I don't know. This is something that Mr.
3 Blankenship said. At Upper Big Branch we complied
4 with MSHA's safety orders, even when we strenuously
5 disagreed with them and believed them to be
6 detrimental to the health and safety of the mine. You
7 can't read Mr. Blankenship's mind.

8 A. That's correct.

9 Q. Are you saying you don't understand that sentence?

10 A. I'm saying that I can see why he would say that
11 statement, I guess.

12 Q. Why?

13 A. Because there were things, I guess, that they
14 wanted us to do, such as what we discussed in these
15 previous revisions, that we didn't agree with. We
16 tried and they didn't work, and therefore, we
17 disagreed with what they wanted us to. Now, as far as
18 strenuously, it's up to him or not, but ---.

19 Q. Well, you know what strenuously disagree means,
20 don't you?

21 ATTORNEY SEARS:

22 Do you know what Mr. Blankenship meant?

23 MR. MCGINLEY:

24 Let him --- if he doesn't know what
25 strenuously disagreed, he can say no.

1 A. Please define strenuously disagreed.

2 ATTORNEY SEARS:

3 He's not using the word, though.

4 MR. MCGINLEY:

5 I understand that. But he speaks

6 English. We've verified that.

7 A. No, I don't. Please define it for me.

8 BY MR. MCGINLEY:

9 Q. Vigorously disagreed. People in your office,
10 Performance Coal, Route 3 Engineering vigorously
11 disagreed with the revision that you submitted on
12 September 14th. Do you agree with that statement?

13 A. Not the entire revision but portions of it if it
14 involved sending belt air outby, yes, we would have.

15 Q. What other examples are there of vigorous
16 disagreement between the engineers at Route 3
17 Engineering and MSHA with regard to ventilation, are
18 you aware of, other than the December 14th, 2009
19 submittal?

20 A. The --- putting the stopping line back in here. I
21 guess the March, whatever it was, 9th or whatever,
22 revision, I would disagree with it because we were
23 following the plan as it was approved, and they wanted
24 us to --- they were shut down at the time to make us
25 build that stopping line back in. And that, as a

1 result, lessened the air going across the face of the
2 longwall.

3 Q. What was the violation that was issued on March
4 9th that shut down UBB? You're talking about that
5 situation.

6 A. I don't know specifically. It was for sending the
7 belt air --- sending the air at the tailgate out more
8 than one break.

9 Q. Is that what it was?

10 A. As I remember it, it was. That was what the
11 revision I believe that we were talking about earlier
12 dealt with, so I think it's the March 9th one.

13 Q. Was there some ventilation disruption that
14 occurred that --- on March 9th the inspector found
15 that caused the issuance of a closure order?

16 A. No, there wasn't a disruption. It was just, I
17 guess, the fact that it was traveling more than one
18 break outby like they wanted, which in our plan said
19 it would be at least one, which would allow more.

20 Q. Is that the same situation you're talking about
21 that occurred in December of 2009?

22 A. No. No. This is on the tailgate. The other one
23 was on the headgate, on the belt air.

24 Q. So explaining the vigorous disagreement that the
25 engineers at Route 3 Engineering had over MSHA's

1 actions on March 9th, 2010, ---?

2 OFF RECORD DISCUSSION

3 A. I would just say that what we felt was not as good
4 as what we thought could be was putting that
5 ventilation revision into place, because it lessened
6 the air going across the longwall face. As far as
7 vigorously disagreeing or strenuously disagreeing,
8 that was Mr. Blankenship's statement, so ---.

9 BY MR. MCGINLEY:

10 Q. You don't know anything about that, any kind of
11 strenuous or vigorous disagreement with MSHA among the
12 engineers at Route 3 Engineering; is that correct?

13 A. I disagree with the fact that you should lessen
14 your longwall air, the air going across your longwall
15 face just for no other reason than to make it just go
16 one break whenever going multiple breaks was approved
17 and that was the way it had been worked with ho
18 problems in that area. So I disagree with that. And
19 I guess that could be an example of that, but I
20 haven't used that term. I guess so. Once again, it's
21 not like I was, you know, raving mad about it, but I
22 don't agree with it, and I think it lessened the
23 effectiveness of the ventilation system. So I do
24 disagree with that process.

25 Q. So you think it would have been appropriate to

1 leave the ventilation system as it was on March 9th?

2 A. In that case, yes.

3 Q. And you believed that what MSHA's position with
4 regard to ventilation system on March 9th, 2010
5 resulted in changes that were detrimental to the
6 health and safety of the mine; is that correct?

7 ATTORNEY SEARS:

8 Is that your testimony?

9 MR. MCGINLEY:

10 That's my question. And if he disagrees
11 with it, he can say yes or no.

12 ATTORNEY SEARS:

13 That's fine.

14 MR. MCGINLEY:

15 So if --- we'll get out of here quicker
16 if you don't translate my questions.

17 ATTORNEY SEARS:

18 I'm not translating.

19 MR. MCGINLEY:

20 But I appreciate it.

21 ATTORNEY SEARS:

22 I'm wanting to make sure he understands.

23 I mean, you know, ---.

24 MR. MCGINLEY:

25 Well, he can say that.

1 ATTORNEY SEARS:

2 I understand. There's a problem with
3 leading questions. And most of the questions you ask
4 are leading, and I want to make sure that he
5 understands that just because you're saying it,
6 doesn't mean he necessarily has to agree with it. He
7 needs to --- he needs to have the confidence to state
8 his statement and his testimony as to what it is and
9 not merely just adopt what you're saying to him. And
10 so I just want him to reinforce the fact that he can
11 either agree with it or disagree. That's what I'm
12 here for, to counsel my client.

13 BY MR. MCGINLEY:

14 Q. Do you understand what Mr. Sears said?

15 A. Yes.

16 Q. So let me reinforce Mr. Sears, okay. If you don't
17 understand my question, you say I don't understand the
18 question. If I'm asking you a question that calls for
19 a yes or no answer, you think about it, if you can't
20 answer it yes or no, say I can't answer it yes or no,
21 and I'm going to explain. If you don't know the
22 answer, say I don't know the answer. That's a given,
23 and Mr. Sears won't have to interrupt.

24 A. Then according to your last question, I can't
25 answer yes or no.

1 Q. Mr. Blankenship, in the same Senate testimony, May
2 of 2010, speaking of ventilation changes, said, we
3 oppose the changes because our own engineers believe
4 they made the mine less safe. Did you and the two
5 engineers at Route 3 Engineering believe that the
6 changes made in December 2009 to March 9th through
7 11th, 2010, made the mine less safe?

8 A. I can't answer that one yes or no because I can't
9 speak for the other two. As far as the ones that I've
10 worked on being the December and the March, I feel
11 that any time that you would decrease the amount of
12 air going across the longwall face, then it would
13 lessen the effectiveness of the ventilation system in
14 this case.

15 Q. But that wasn't a question. Did you think that it
16 made the mine less safe? The changes that Massey made
17 and proposed in their ventilation plan revisions, did
18 that make the mine less safe?

19 A. Any time that you would lessen the air going a
20 cross your longwall face and decrease the
21 effectiveness of your bleeder system, then I would
22 think that mine would be less safe, yes.

23 Q. So you submitted --- Route 3 engineers submitted
24 --- some body put the P.E. stamp on a plan revision,
25 several plan revisions, that made the mine less safe?

1 A. You don't P.E. stamp mine revisions, but ---

2 Q. Okay.

3 A. --- you ---.

4 Q. Well, there are engineers that drew up the plans.

5 A. Less safe doesn't necessarily mean unsafe, though,

6 as another --- once again, you're leading questions.

7 Therefore, I mean, we could put a fan on the back end

8 of this that would pull two million CFM, and that

9 would be more safe because you would have more air

10 going through there. But by putting a small one, does

11 that make it less safe, yes, but it doesn't make it

12 unsafe.

13 Q. Oh, so --- I didn't use the word unsafe.

14 A. Yes, you did.

15 Q. Yes, I did, quoting --- please, please, let's just

16 one of us talk at a time. I quoted from the CEO of

17 Massey Energy who said, we oppose the changes because

18 our own engineers believes they made the mine less

19 safe. Not my words, ---

20 A. Exactly.

21 Q. --- Mr. Blankenship's.

22 A. That's my point. Less safe is not the same as

23 unsafe.

24 Q. Okay.

25 A. When you asked me the question, I think you did

1 the use the unsafe question.

2 Q. Okay.

3 A. It makes it less safe. It doesn't necessarily
4 make it unsafe. We're not proposing plans to make a
5 mine unsafe.

6 Q. That's fine.

7 A. It's less safe.

8 ATTORNEY SEARS:

9 And Professor, if I can make ---.

10 BY MR. MCGINLEY:

11 Q. That's a good --- I appreciate that clarification.

12 ATTORNEY SEARS:

13 And if I can make a statement. I'm not
14 going to go as far as what Mr. Hardy had suggested in
15 the last testimony with regard to the adversarial
16 Cross Examination, because I think it's fair
17 questioning to ask what his opinions were and his
18 beliefs are, but I do believe that it gets into kind
19 of an unfair territory to ask him to explain Mr.
20 Blankenship's thoughts, which I think a lot of the
21 questions, if not outright asking, kind of borders on.
22 And to that extent, I would only request that, you
23 know, if you make reference, you know, make reference,
24 this is what he said, do you agree with that or
25 something, as opposed to asking him to adopt or

1 explain Mr. Blankenship's uses of words or his
2 position statements. Because, obviously, I don't
3 think he's in a position to do that. So that's my
4 little comment, so ---.

5 MR. MCGINLEY:

6 Well, I appreciate that. I appreciate
7 that. And you're absolutely right, we don't want the
8 witness to read Mr. Blankenship's mind. That wasn't
9 my intention. Mr. Blankenship said, one would assume
10 from his sworn statement before the Senate that he had
11 information that Massey engineers believes that the
12 ventilation changes made the mine less safe. And I'm
13 --- and I've asked the witness, and he's indicated
14 that he believed that at least two ventilation changes
15 made the mine less safe.

16 BY MR. MCGINLEY:

17 Q. Is that correct, sir?

18 A. Yes.

19 Q. How much less safe?

20 A. How do you quantify less safe?

21 Q. I don't know. I'm asking you. You said it made
22 the mine less safe.

23 A. There's no way to quantify something like that. I
24 mean, we don't have a five-star rating on cars to say,
25 you know, this is only a four star where this is a

1 five star.

2 Q. So when you said that these changes made the mine
3 less safe, you absolutely were not saying that these
4 changes put any miners' lives at risk; is that
5 correct?

6 A. Not directly, no.

7 Q. Well, what do you mean by that?

8 A. Going back, if you decrease air going through an
9 area, if you were to have something happen in that
10 area, less air would increase the risk involved in it.
11 You would have less dilution. You would have less
12 movement, such as that. So any time you would lessen
13 the amount of air going across the longwall face, you
14 would increase the risk. There might not be a direct
15 relationship between that two. Doing that
16 specifically doesn't cause something unsafe. But if
17 something were to happen, it would be less effective
18 in not recovering but in taking care or sweeping out
19 that air or whatever would occur. So that would be
20 less safe in that manner.

21 Q. To what extent was the risk increased by these
22 ventilation changes in December and March?

23 A. There's no way to quantify it. I don't know of
24 any way to quantify it, sir.

25 Q. So you just have this general feeling there's less

1 air, it's less safe?

2 A. Yes. If you're crossing a street and you look one
3 way instead of both ways, how much less safe are you?

4 Would you say 50 percent because you only looked
5 halfway? I mean, there's no ---.

6 Q. So would you agree that ---?

7 A. It would matter how much traffic is going along
8 that road as well. So I mean, there's no way to
9 quantify a statement like that.

10 Q. So would you agree that the use of the term less
11 safe with regard to these ventilation plans really
12 doesn't have any meaning?

13 A. No, I wouldn't say that.

14 Q. Well, what ---?

15 A. It would definitely be less safe to look one way
16 than to look both ways, but you can't quantify that
17 amount, which you're asking me to quantify.

18 Q. Well, you would never submit a plan, a ventilation
19 plan, to MSHA that would put miners' lives at risk,
20 would you?

21 A. Correct.

22 Q. So the revisions that you believe MSHA forced on
23 Performance did not put miners' lives at risk; is that
24 correct?

25 A. Not directly, no.

1 Q. Well, you wouldn't knowingly submit ---

2 A. Correct.

3 Q. --- ventilation plan revision that indirectly put
4 miners' lives at risk; is that correct?

5 A. I think so. Repeat ---.

6 ATTORNEY SEARS:

7 Let the record reflect that I don't

8 believe that last answer, I don't think so, wasn't

9 necessarily in direct response to the question as to

10 perhaps your understanding of what he was asking.

11 A. Yes, because there was a lot of direct and

12 indirect lies and assumptions and all that.

13 ATTORNEY SEARS:

14 I mean, you weren't trying to suggest

15 that there might be a circumstance when you would

16 submit such a plan?

17 A. Correct, I'm not suggesting that.

18 ATTORNEY SEARS:

19 All right.

20 BY MR. MCGINLEY:

21 Q. Well, let's be clear about this. You didn't

22 believe that either the December or the March

23 ventilation revisions that were submitted would either

24 directly or indirectly place miners' lives at risk; is

25 that correct?

1 A. Correct.

2 Q. Thank you. What do you know --- strike that.

3 Was there ever inadequate airflow in either the
4 headgate or the 22 Headgate or 22 Tailgate production
5 areas?

6 A. No, I don't know of any.

7 Q. Did anybody ever tell you there were ventilation
8 problems in the working places at 22 Tailgate or
9 Headgate?

10 A. No one told me that, no.

11 Q. Would you have liked to have known that, if that
12 were true?

13 A. Me, personally --- I mean, it wouldn't be my
14 responsibility, I guess is what I'm saying, since it's
15 not --- I didn't have directly daily dealings with
16 this mine, so I mean, it's ---.

17 Q. Okay. But you ---?

18 A. I would like to have known insomuch as if there
19 was a problem, we would like to do what we can to
20 correct the problem. But as far as should I have been
21 told or, you know, do I think I should have been told?
22 Not necessarily because it's not my --- it wouldn't be
23 my place to be told, I guess is what I'm trying to
24 say.

25 Q. For any mine service ---?

1 A. One of the mines under my responsibility, yes, I
2 would want to know.

3 Q. Okay. That's my question. So if there was
4 inadequate airflow at the Headgate 22 or Tailgate 22,
5 whoever the engineer was with the responsibility at a
6 particular point in time would definitely want to know
7 about that?

8 A. I can't speak for him, but I would say yes.

9 Q. Well, as a professional ---?

10 A. Knowing Eric and it being his, I would say yes.
11 But that's me speaking for someone else, so I can't
12 guarantee that, but I would think so, yes. Just as a
13 general human being, I would think so as well, too.

14 Q. Anyone in the profession of mining engineering
15 working on ventilation plans would want that
16 information; correct?

17 A. Yes, I would think so.

18 Q. How would leaving airlock doors open affect
19 ventilation, let's say for an extended period, four
20 hours, in an underground mine?

21 A. Depending on the situation. I mean, the reason
22 you have airlock doors is basically so when you open
23 one you don't short circuit air. So depending on the
24 situation, it could short circuit your air, not allow
25 it to flow where it needed to.

1 Q. And that would be bad, I take it?

2 A. Yeah. If the doors were required to be in that
3 place, yes.

4 Q. Is that a problem with having doors rather than
5 overcasts, that the doors may be left open?

6 A. I wouldn't say it's a problem, no.

7 Q. Well, is it a problem if doors are left open?

8 A. It could be a problem if doors were left open and
9 they needed to be closed in that area. I mean, they
10 serve a purpose being closed ---

11 Q. Right.

12 A. --- in situations. And if that's a requirement,
13 yes, it would cause a problem if they were left open,
14 yes.

15 Q. And your ventilation plan, would it anticipate
16 that doors were --- airlock doors were closed in order
17 to prevent short circuiting airflow?

18 A. If they were needed to be, yes. I mean, ---.

19 Q. That's why you would have them?

20 A. Yes. There may be doors that were used at another
21 time period, and they would be left in there and they
22 would be required to be closed once, you know, an area
23 is made common or something like that. But if they
24 were intended to be there and they serve a purpose
25 being there, then yes, we would anticipate them being

1 closed in our ventilation design.

2 Q. To what extent did the two people at Route 3
3 Engineering who put their P.E. stamps on ventilation
4 plans, were they involved in the actual development of
5 ventilation plans, if you know?

6 A. As far as --- the P.E. stamping it doesn't really
7 ---. He's just saying that what is there is what is
8 there, I guess, is what ---. So the design of the
9 ventilation system really has no bearing on what he's
10 certifying.

11 Q. So basically what you did as a standard practice
12 at Route 3 Engineering was go through all the things
13 that you've learned to make sure a ventilation plan
14 was appropriate and that the mine would ventilate?

15 A. Uh-huh (yes).

16 Q. And then you gave them to Mr. Brainard or Mr.
17 McCombs and they'd stamp it? Was that the process?

18 A. I think you're confusing revisions with an annual
19 ventilation map.

20 Q. Well, whatever they stamped.

21 A. Now, there's a difference.

22 Q. Okay.

23 A. That's what I'm saying. You're getting it ---

24 Q. That's fine.

25 A. --- confused. The ventilation revisions don't

1 require the BPE stamp. That's saying we're going to
2 change the ventilation. This scheme that we're
3 proposing we anticipate will work. It will do what we
4 show it to do, and they don't certify that. They
5 certify an annual map, which basically just says what
6 is there is there. These are their air readings that
7 we had at these locations. These controls are in
8 place, that type of thing. That's what they certify.
9 They don't certify any proposed thing.

10 Q. Okay. So whatever they certify and put their P.E.
11 stamp on is something that you give them and they
12 trust you and they stamp? Is that the way it works or
13 not?

14 A. They look over them and you follow through and you
15 know, make sure that there aren't any errors or
16 inconsistencies or whatever in it. So I mean it's not
17 like close your eyes and stamp a map just because
18 somebody hands it to you, so that ---.

19 Q. Well, ---

20 A. I mean ---.

21 Q. --- I'm just asking you what they --- what those
22 P.E.'s that put their stamps on documents that relate
23 to ventilation, what do they do other than put their
24 stamp on it? How much do they know about what they're
25 stamping, other than the engineers that work for them

1 are competent?

2 A. They basically take other people's words for it,
3 which is what this certification says. You know, it
4 has Section Four, information not obtained by the
5 professional engineer is obtained by a certain person.

6 The person, the mine foreman, superintendent,
7 whoever is responsible for getting the air readings,
8 things such as that. The surveyor is responsible for
9 getting the take-up. You know, we check over it and
10 put it in and make sure that everything's right, and
11 we go through and make sure that, you know, there's no
12 short circuits in the mine and that the air's flowing
13 like it should be and all that stuff.

14 But as far as him personally going in and
15 verifying that this stopping is here, no, he doesn't
16 do that. He has to take someone else's word for it,
17 so ---.

18 Q. Well, is it your experience that Mr. Brainard and
19 Mr. McCombs rarely, if ever, ask you questions after
20 you've prepared, competently prepared whatever
21 documents they have to stamp?

22 A. I wouldn't necessarily say that, either. I mean
23 it's not that they were rarely asking questions.
24 They'd look over the map, and if they had any
25 questions, they would ask them.

1 Q. How often did they ask questions?

2 A. I don't know. Twice. I mean ---.

3 Q. Once a year? Did they every time you'd give
4 them ---?

5 A. Not every time, no, but ---

6 Q. Uh-huh (yes).

7 A. --- whenever they would see something --- it might
8 not even be anything wrong. They might just have a
9 question about it, so I mean ---.

10 Q. Okay. Well, what do you know about the 2003 and
11 2004 methane inundations at Upper Big Branch?

12 A. Very little. I wasn't there around 2003, 2004, so
13 I wasn't involved then.

14 Q. When did you learn about them? Was it after ---

15 A. After.

16 Q. --- the explosion?

17 A. Yeah.

18 Q. So nobody ever talked to you about the fact that
19 the mine had to be evacuated because there was a
20 methane inundation ---

21 A. No, no one talked to me.

22 Q. --- back in 2004?

23 A. No one talked to me about it.

24 Q. Would you have liked to have known that?

25 A. It goes back to what I said earlier. Same thing

1 with the ventilation plan. It wouldn't necessarily
2 have been my place to have known, but if --- you know,
3 if you knew something, if it was my place to know,
4 then yes, I would've liked to have known, but yeah.

5 Q. Well, let's say it's your place. I mean, not UBB;
6 one of the mines --- one of the mines that you were
7 directly responsible for. Now, I understand Mr. Lilly
8 had the primary responsibility for UBB. He had a
9 methane inundation that caused the mine to be cleared
10 out and the people didn't work for a day or two, would
11 you have wanted to know that with regard to those
12 mines?

13 A. I guess it would depend on the circumstances, but
14 if it could potentially be a future problem, then yes,
15 I would like to know.

16 Q. Fair enough. With regard to the two ventilation
17 plan revisions that you were involved in regarding UBB
18 that we've discussed here today, December 2009, March
19 2010, did Bill Ross play any role in the development
20 of those plans?

21 A. In those two specifically, no, I don't remember
22 him being involved in those two.

23 Q. Is he the most experienced person, to your
24 knowledge, that works for Massey or any of its
25 subsidiaries with regard to ventilation, if you know?

1 A. I would say he would be the one I would go to, I
2 guess, is what I would say. I mean, he would be the
3 most experienced that I would deal with. There may be
4 someone else that is more experienced, but yes, he
5 would be ---.

6 Q. As far as you know, he's the most experienced
7 ventilation man that works for Massey?

8 A. Yes, I would say. Yes.

9 Q. So --- but he wasn't involved in these two changes
10 that --- in December 2009 and March 2010 that you
11 thought made the mine less safe?

12 A. As far as the preparation of the two things as I
13 prepared them, no.

14 Q. Why didn't you talk to him about a revision that
15 you believe made the mine less safe if he was the most
16 experienced ventilation person that worked for Massey?

17 A. I can't say that he wasn't aware of them. I'm not
18 going to say that, but ---.

19 Q. You don't know whether he was aware of them or
20 not?

21 A. No, I don't know.

22 MR. MCGINLEY:

23 All right. I don't have any other
24 questions.

25 MR. SHERER:

1 Do you need to take a break?

2 A. I'm okay.

3 ATTORNEY SEARS:

4 Do you need to take a vacation?

5 MR. SHERER:

6 No comment, Counsel.

7 RE-EXAMINATION

8 BY MR. SHERER:

9 Q. Okay. You discussed a lot of issues with Mr.
10 McGinley. One of them had to do with the belt air on
11 the longwall. Were you aware of the 2006 Miner Act?

12 A. Yes.

13 Q. Are you aware of the Technical Study Panel created
14 by the Miner Act?

15 A. Not specifically, no.

16 Q. Okay. Did you attend any of the --- I think there
17 was four or five public hearings on the Technical
18 Study Panel.

19 A. No.

20 Q. Did you provide any comments to the Technical
21 Study Panel?

22 A. No.

23 Q. Do you know if anyone else at Massey ---

24 A. I don't know if anyone ---.

25 Q. --- participated in that?

1 A. No.

2 Q. Were you aware of the December the 30th, 2008
3 regulation that MSHA passed, dealing with the results
4 of the Technical Study Panel as required by the Miner
5 Act? Sometimes it's referred to as the Belt Air Rule.

6 A. Yes, I'm familiar with it.

7 Q. Okay. When did the longwall --- when was the
8 longwall installed at UBB?

9 A. I guess it would be started September, I think, of
10 '09.

11 Q. Okay. So approximately, nine months or so after
12 the passage of the Belt Air Act?

13 A. Yes.

14 Q. Why did you guys not design a system that complied
15 with the Belt Air Act?

16 A. The Belt Air Act requires that if you use belt air
17 in the face that you have to get it approved in your
18 ventilation plan, does it not? Is that ---

19 Q. It sure does.

20 A. --- part of it? Then that's what we did. It says
21 it can be approved in your ventilation plan, but you
22 have to show that it is ---. I don't know how it's
23 worded exactly, so I won't ---.

24 Q. Just that. You have to show that it's necessary
25 for the ---

1 A. Yeah.

2 Q. --- health and safety of the miners.

3 A. So that's what we did. We designed it and we
4 applied for that and it was approved that way, so
5 therefore, it was approved in our ventilation plan,
6 so ---

7 Q. Okay.

8 A. --- that's how we complied with the Miner Act ---

9 Q. Okay.

10 A. --- the Belt Air Act, whatever.

11 Q. How did you justify the use of belt air in the
12 face or on the longwall?

13 A. I don't know, I don't know.

14 Q. Okay. In general how long --- how deep does the
15 water have to be before it's unsafe to travel?

16 A. I don't know. Generally I'd say 18 inches or
17 so ---

18 Q. Okay.

19 A. --- is what I'd say.

20 Q. Thank you. Are you familiar with the ALPS system
21 for longwall pillar stability?

22 A. Yes.

23 Q. Have you run that?

24 A. I have.

25 Q. Have you been trained in the use of that?

1 A. I don't know. No, I've never been officially
2 trained in the use of it. No.

3 Q. Okay. Did you or anybody else you're aware of use
4 ALPS to design the pillars for the gate rows of the
5 current longwall panel at UBB?

6 A. I'd run some initially, using it, and I believe
7 Eric did, as well.

8 Q. Do you recall what sort of stability factors
9 you ---?

10 A. Not right off the top of my head, no.

11 Q. Okay. Are you aware of the P2 engineering
12 standards for pillar stability factor?

13 A. No, not right offhand.

14 Q. Okay. Did Doctor Wala with the University of
15 Kentucky provide engineering consulting services in
16 relationship to the ventilation system at Upper Big
17 Branch?

18 A. He performed the ventilation survey. In addition
19 to that I don't know of anything with him.

20 Q. Was he acting as a consultant when he did that?

21 A. I would say yes, he was. I mean I don't know.

22 Q. Thank you. Who's responsible for entering the
23 actual mined areas onto the mine maps?

24 A. Putting --- as we develop, putting that
25 information into a computer file?

1 Q. Yeah, uh-huh (yes).

2 A. We have, I guess, two gentlemen, a survey
3 coordinator and AutoCAD technicians that do that
4 generally.

5 Q. Okay. Do you know who made the decision to use
6 airlock doors instead of an overcast at Break 78?

7 A. I don't know that.

8 Q. Okay. You were talking about the Massey
9 improvements on MSHA requirements, and one of the
10 things I recall you talking about was a 20,000 cubic
11 feet requirement in the last open break.

12 A. Uh-huh (yes).

13 Q. And the MSHA regulatory minimum requirement was
14 9,000 cubic feet per minute. Do you know if Massey
15 always requires 20,000 cubic feet per minute before
16 they mine on a section?

17 A. Have they always or do they now?

18 Q. Do they now?

19 A. They are supposed to, yes.

20 Q. Okay. Do you know that 22 Headgate rarely had the
21 legal minimum ---

22 A. No.

23 Q. --- to mine?

24 A. No.

25 Q. Okay.

1 OFF RECORD DISCUSSION

2 BY MR. SHERER:

3 Q. Thank you. You also spoke about the Bandytown fan
4 having twice the required air quantity or air
5 capacity, I guess. Do you want to say something?

6 A. I don't know that I --- I didn't necessarily mean
7 that it had twice of what was required. I think that
8 was just using an example, saying --- say we'd make a
9 fan twice as much as what would be required.

10 Q. Okay.

11 A. I wasn't saying specifically that Bandytown did
12 have twice as much as what we ---

13 Q. Okay, okay.

14 A. --- required necessary, so ---.

15 Q. Thank you.

16 A. That was just a ---

17 Q. Thank you.

18 A. --- hypothetical or example of that, so ---.

19 Q. Okay, okay. I misunderstood you. Excuse me.

20 A. If I did say that, I didn't mean to, so ---.

21 Q. Okay. Thank you. Who decided to locate this
22 longwall in the middle of what was effectively the
23 main return of this mine?

24 A. I don't know. I mean who would ---?

25 Q. Well, you said you were involved in the planning

1 when this panel was laid out. Who decided to stick it
2 in there without any protection for those returns?

3 A. I guess the ultimate call would've been --- Chris
4 Blanchard would've been the one that would've made the
5 ---

6 Q. Okay.

7 A. --- decision to do that, I guess.

8 Q. Thank you. Were you aware that both the headgate
9 and the tailgate were failing?

10 A. No.

11 Q. Okay. Have you been back in this mine since the
12 explosion?

13 A. I've never been in the mine.

14 Q. Oh, okay. That's right. Excuse me, excuse me.
15 Would it surprise you to know that the investigators
16 can't get past the 38 Break on the headgate and I
17 think it's the 74th Break on the tailgate because of
18 water, roof and floor heave.

19 A. Now? No, it wouldn't really surprise me, because
20 the mine basically hasn't been up-kept ---.

21 Q. Okay.

22 A. --- since the thing so ---

23 Q. Okay.

24 A. --- I mean ---.

25 Q. Okay. Would it surprise you to know that those

1 areas were failing prior to the explosion?

2 ATTORNEY SEARS:

3 What do you mean by failing?

4 BY MR. SHERER:

5 Q. The headgate was un-travelable, the tailgate was
6 subject to extensive roof failure and floor heave.

7 A. I don't know. It wouldn't surprise me, I guess.

8 I mean, surprise, I don't know if that would be a word
9 I would use, I guess I would say.

10 Q. Okay. Thank you. Okay. Okay. Were you aware of
11 any of those problems in the headgate or tailgate?

12 A. No, not really.

13 Q. Okay.

14 OFF RECORD DISCUSSION

15 A. No, not really.

16 MR. SHERER:

17 Okay.

18 ATTORNEY SEARS:

19 Were you aware of them or not?

20 A. No.

21 ATTORNEY SEARS:

22 It's a yes or no. You said no, not
23 really.

24 A. No.

25 ATTORNEY SEARS:

1 Okay.

2 MR. SHERER:

3 Okay.

4 ATTORNEY SEARS:

5 I just wanted to make sure.

6 MR. SHERER:

7 Okay.

8 RE-EXAMINATION

9 BY ATTORNEY HAMPTON:

10 Q. I have a couple questions for you. You mentioned
11 George Levo.

12 A. Yes.

13 Q. He's somebody who works for Route 3 Engineering;
14 is that right?

15 A. He passed away. He doesn't work there any longer.

16 Q. Oh.

17 A. He used to, yeah.

18 Q. He used to?

19 A. Yeah.

20 Q. Okay. Do you know at what point he stopped
21 working for Route 3?

22 A. The day that he died.

23 Q. Well, okay. Well, that was one question. Do you
24 know, was it --- how long ago that was?

25 A. June 2008, something around in there, I'd say.

1 Q. Okay. And do you know what his role was at Route
2 3 or maybe his title?

3 A. He was the UBB --- he had been at Performance
4 Engineering from before they consolidated and
5 everything, so he was the engineer for UBB.

6 Q. Did Eric Lilly take over his duties?

7 A. Not to start with. I guess Eric started shortly
8 after George passed away, and at that point it was
9 collaboration. We had another engineer that was in
10 there for a short amount of time, and he helped out
11 with it, as well, and ---.

12 Q. Who was the other engineer?

13 A. Mutombo Nombe, but he worked there for --- I don't
14 even remember now. I would say maybe a month, if
15 that.

16 Q. Do you know where Mutombo is now?

17 A. No. I think he left and went to Texas somewhere,
18 is where he took a job after he left there, but I
19 don't know where he's at now, no. But he was only
20 there for a ---

21 Q. Okay.

22 A. --- short amount of time.

23 Q. Do you know an Ed Thompson?

24 A. Ed Thompson? No.

25 Q. No?

1 A. No.

2 Q. Okay. How about a Raghuveer Thadisina?

3 A. Yeah. That was the Reddy guy ---

4 Q. That's Reddy?

5 A. --- I was talking about earlier, yes.

6 Q. Okay. And you mentioned Reddy earlier, and I'm
7 sorry. Where did you say he worked?

8 A. He works at Independence.

9 Q. Independence?

10 A. Yes.

11 Q. And do you know his title or what his duties are?

12 A. He is an engineer with Independence, but I don't
13 know what his full duties are, no.

14 Q. But he's never worked for Route 3?

15 A. No.

16 Q. Has he worked with the engineers at Route 3?

17 A. After the explosion, he did come over and help and
18 stuff afterwards, but that was --- prior to that, no,
19 not really. No, he didn't.

20 Q. Do you know if he had any involvement in the
21 ventilation survey that you told us about earlier that
22 Doctor Wala performed?

23 A. He came over and helped with the underground
24 portion of it. Beyond that I don't know what his
25 involvement would've been. He was familiar with the

1 program that Wala used, as well, so he kind of ---
2 that's kind of how he got involved with it, I guess,
3 when he helped out with the UBB vent survey.

4 Q. Okay. And he still works for Independence now?

5 A. Yes.

6 Q. Okay. Do you know --- same question for George
7 Levo. Did he work with Doctor Wala or did he have any
8 involvement on that ventilation survey?

9 A. Yeah, yeah, he did.

10 Q. Do you know what his involvement was?

11 A. Not specifically. I don't know if he went
12 underground and helped with him or not, but he, I
13 think, was kind of the point of contact with Wala
14 initially, at least, so ----.

15 Q. Okay. And did Mutombo Nombe have any involvement
16 with that survey?

17 A. No.

18 ATTORNEY HAMPTON:

19 Okay. Thanks. That's all. Nothing?

20 MR. MCGINLEY:

21 I have a couple more if nobody else does.

22 ATTORNEY HAMPTON:

23 Okay.

24 RE-EXAMINATION

25 BY MR. MCGINLEY:

1 Q. The Massey's 20,000 rule that we've talked about
2 here --

3 A. Uh-huh (yes).

4 Q. --- what does that mean? What's the consequences
5 if you don't have 20,000 in the last open break? I
6 mean, what's the purpose of the rule?

7 A. To ensure that you have sufficient air on your
8 section.

9 Q. So if I don't, if the section foreman takes a
10 anemometer reading and they don't have 20,000, they
11 shut the section down?

12 A. They're not supposed to run without 20,000,
13 so ---.

14 Q. Is that written down somewhere?

15 A. I don't know that it is.

16 Q. Why do you think that?

17 A. Why do I think what?

18 A. Why do you think that they're supposed to shut
19 down the section if they don't have 20,000?

20 A. I guess that was the way it was conveyed to me.

21 Q. By whom?

22 A. I don't know at this point.

23 Q. You don't know? So you don't know if it's a rule
24 or not?

25 A. I don't take air readings on the sections, so I

1 mean no.

2 Q. Do you take the 20,000 rule into consideration in
3 a ventilation plan?

4 A. Not really, no. I mean it's not in most
5 ventilation revisions or what it doesn't necessarily
6 have any bearing on it, I guess.

7 Q. Well ---.

8 A. I mean, I guess in the grand scheme of things with
9 the design, it doesn't really have a bearing on it.
10 So no. I mean, we don't ---. No, I don't take that
11 into account when ---.

12 Q. When a ventilation plan, a revision is designed,
13 you don't model it, you don't pay any attention to the
14 20,000, for lack of a better word, rule? That plays
15 no role in your ventilation plans; is that true?

16 A. I won't say that. We don't do designs or
17 revisions with the aim of getting that, I guess, is
18 what I'm trying to say. I mean it's not the be all,
19 end all of a design, no.

20 Q. Well, you don't factor it in ---

21 A. I mean ---.

22 Q. --- at all; is that correct? In the ventilation
23 designs?

24 A. No. No, not specifically.

25 Q. Not factored?

1 A. No.

2 Q. And with regard to the application of this Massey
3 20,000 rule, someone that you can't remember told you
4 that the section should shut down, but otherwise you
5 don't know anything about it; is that correct?

6 A. More or less, yes. I mean yeah.

7 Q. You said that a ventilation survey has been made
8 after the explosion with regard to UBB; is that ---
9 did I understand that correctly?

10 A. I don't know specifics about it, but we had a copy
11 of the VnetPC and it was barred from us with the
12 assumption that the people involved with the
13 investigation of UBB would do the --- were working on
14 a computer simulation of it, yes.

15 Q. The internal Massey people ---

16 A. Yes.

17 Q. --- investigating on it?

18 A. Yes.

19 Q. Okay.

20 Q. So you haven't seen it?

21 A. No, other than them borrowing my copy of the
22 program, I have no knowledge of it.

23 Q. And what program is that?

24 A. VnetPC.

25 Q. Is that the same one that Doctor Wala used?

1 A. Yes.

2 Q. Do you know how to use that program?

3 A. Not extensively, but a little bit, yes.

4 Q. Have you ever used it with regard to UBB?

5 A. No, not UBB.

6 Q. Have you ever used it with regard to any mine
7 under your responsibility?

8 A. Yes.

9 Q. For what purpose did you do it?

10 A. Design the --- sizing a shaft.

11 Q. That's the only thing?

12 A. We haven't had it for that long, so yeah.

13 Q. How long have you had it?

14 A. Probably, oh, six, eight months I'd say, probably.

15 Q. So you got it ---? You got that software is
16 it ---?

17 A. Yes.

18 Q. You got that a year and a half after --- or more.

19 No, it's three years after Doctor Wala did the
20 original UBB survey?

21 A. Well, he did the underground portion of it at that
22 point, but he still did the computer simulations up
23 through last year, 2009, I think is when.

24 Q. At the end of 2009?

25 A. Yeah. It was about the time we were putting the

1 shaft in, the Bandytown in.

2 Q. Okay. Leading up to that Bandytown shaft?

3 A. Yes.

4 MR. MCGINLEY:

5 That's all the questions I have.

6 RE-EXAMINATION

7 BY MR. SHERER:

8 Q. I have one additional question. Who's involved in
9 the Massey accident investigation?

10 A. I guess Charlie Burse, Chris Prater. Danny
11 Acord's doing some CAD work for them. I know that.
12 Those are the only ones, really, that I know.

13 MR. MCGILEY:

14 Danny ---?

15 A. Acord. I guess ---.

16 BY MR. SHERER:

17 Q. Do you know if Pete Hendrick is involved in that?

18 A. I don't know.

19 MR. SHERER:

20 Okay. Thank you. That's all I've got.

21 ATTORNEY SEARS:

22 We're done.

23 ATTORNEY HAMPTON:

24 Okay. On behalf of MSHA and the Office
25 of Miners' Health, Safety and Training we'd like to

1 thank you for appearing and answering questions today.
2 Your cooperation is very important to the
3 investigation as we work to determine the cause of the
4 accident.

5 And as we mentioned earlier, we do
6 request that you not discuss your testimony with any
7 person other than your attorney. And after asking ---
8 questioning other witnesses, we might have some
9 follow-up questions for you, so we might call you back
10 here.

11 If at any time after you leave here today
12 you have additional information you'd like to provide
13 to the team, please don't hesitate to contact us at
14 the information that was provided to you in the
15 letter. Now, as I mentioned earlier, at this point
16 you may now go over any answer that you've given if
17 you have anything you'd like to clarify, or you may
18 make a statement if there's anything additionally that
19 you would like to say to us.

20 A. No.

21 ATTORNEY SEARS:

22 Do you want to reconsider your appearance
23 fee issue?

24 A. That's what I was going to say.

25 ATTORNEY SEARS:

1 He will like to maintain confidentiality
2 to the extent permissible and have an opportunity to
3 read.

4 ATTORNEY HAMPTON:

5 Okay. Thank you very much. Off the
6 record.

7 * * * * *

8 STATEMENT UNDER OATH CONCLUDED AT 7:09 P.M.

9 * * * * *

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 STATE OF WEST VIRGINIA)

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CERTIFICATE

I, Alison Salyards, a Notary Public in and for the State of West Virginia, do hereby certify:

That the witness whose testimony appears in the foregoing deposition, was duly sworn by me on said date and that the transcribed deposition of said witness is a true record of the testimony given by said witness;

That the proceeding is herein recorded fully and accurately;

That I am neither attorney nor counsel for, nor related to any of the parties to the action in which these depositions were taken, and further that I am not a relative of any attorney or counsel employed by the parties hereto, or financially interested in this action.



Alison Salyards

A	actions	adverse	106:1,6	85:15
abide 14:18	123:1	16:17	110:3,12	100:10
able 67:11	Active 27:10	aerospace	121:14	122:19
69:22	activities	21:3 50:17	122:1,7,7	134:24
70:11	13:4	51:11,18	122:23	allowed
73:12	activity	51:22	123:6,14	72:20,22
75:19	16:15	affect 68:25	123:14	73:10
76:16	actual 29:16	68:25	126:12,19	ALPS 144:20
78:21	35:25 44:2	134:18	127:9	145:4
absolutely	61:23 76:6	aforemen...	130:8,10	amount
129:7	102:23	26:8	130:13,19	110:12
130:3	115:9	afternoon	131:1	126:11
Academy 1:9	118:9	17:14	134:23,24	130:13
access 98:8	136:4	agencies	137:6	131:17
accident 8:7	145:23	26:10 79:4	138:7	151:10,22
12:20,21	add 98:2	agency 1:27	142:10	anemometer
14:6 16:11	addition	8:8 31:25	143:5,12	154:10
35:18	19:10	ago 43:2	143:15,16	annual 24:20
158:9	49:18,18	106:23	143:16	25:10 41:7
159:4	85:13	150:24	144:10,11	136:18
accidents	100:3	agree 119:23	147:4,4	137:5
15:8	145:18	120:15	154:7,25	annually
accommodate	additional	121:12	airflow	39:15
15:18	16:3,6	123:22	41:25	answer 15:18
accomplish	50:1 76:8	125:6,11	69:23	28:19
96:17	158:8	128:24	70:11	30:13
account	159:12	131:6,10	133:3	32:20
155:11	addition...	agreement	134:4	72:17
accumulate	159:18	13:10	135:17	75:13,24
50:25	address 9:10	ahead 87:22	airlock	80:23 86:7
accurate	addressed	94:14	101:23	88:25 89:2
76:3	65:5	116:25	116:15	89:15 90:4
accurately	adequate	aim 155:17	134:18,22	90:16
161:13	75:11	air 34:12	135:16	91:23 93:8
achieve	78:18	38:11,12	146:6	95:13
17:23	adjustments	41:24 42:2	Airport 1:9	109:2
Acord 158:15	42:9,16,16	42:4 48:23	airway 71:12	125:19,20
Acord's	43:20	51:14	71:12	125:20,22
158:11	Adkins 83:3	69:23,25	air's 138:12	125:22,25
acquire 36:6	83:7	72:3,18,25	Akers 4:3	126:8
Act 13:18	Administ...	73:4,12,21	11:15,16	132:8
16:16,20	2:23 8:8	74:10,22	72:6	159:16
142:11,14	adopt 125:9	74:24 75:5	alarm 112:22	answered
143:5,12	128:25	77:5,15	Alison 1:6	16:2 41:18
143:15,16	advance	78:11,21	161:5	115:24
144:8,10	15:22	79:15,20	Allen 4:4	answering
acting	26:15	83:22,23	11:16	75:23
145:20	adversarial	85:16,17	allow 24:11	159:1
action 16:17	13:25	97:21	34:17 70:7	answers
161:15,19	128:15	105:11	71:11 77:5	17:19

89:21, 23	83:25	131:17	5:7, 16, 24	132:6, 13
anticipate	104:3, 23	132:10	6:8 8:3, 19	132:18
135:15, 25	121:23	137:21	8:20 9:5, 9	142:3
137:3	123:16	138:23	9:14, 15, 18	149:2, 18
anybody	143:17, 21	159:7	9:20, 22, 24	149:21, 25
40:22 49:2	144:4, 5	assigned	10:1, 3, 5, 9	150:4, 9
60:2 133:7	approxim...	8:21 13:13	10:13, 18	153:18, 22
145:3	35:24	23:6 31:4	10:24 11:3	158:21, 23
anymore	143:11	31:8 118:8	11:7, 11, 13	159:7, 21
103:16	April 13:16	assignments	11:15, 19	159:25
Appeals 17:4	17:15 18:3	23:4	12:18	160:4
appear 43:8	18:4 50:2	assistance	13:21, 24	161:14, 17
appearance	area 33:11	13:20	15:1, 4, 14	attorneys
8:12	37:5 42:23	23:16	18:9 27:17	10:20
159:22	43:11 54:3	Assistant	28:6, 10, 18	audit 41:10
appearing	54:5, 6	8:20	32:8 38:22	authority
10:6 15:23	69:6	associated	39:7 47:6	22:10
159:1	100:10	24:6 26:18	48:14 49:5	103:13
appears	123:18	association	50:11 64:6	authoriz...
83:14, 20	130:9, 10	23:9	64:10, 15	1:26
161:7	135:9, 22	assume 22:24	64:19 65:8	authorizes
application	areas 26:18	44:17	66:21 67:4	11:21
156:2	38:15	74:16	72:6 75:20	AutoCAD
applied 56:3	108:14	75:16, 16	76:4, 11, 15	19:18, 20
144:4	133:5	85:4 90:10	76:20, 25	21:20, 21
appreciate	145:23	90:16	80:20, 24	34:23 35:7
13:20	149:1	94:13, 18	81:17 84:7	35:8 146:3
64:18	Arlington	129:9	84:16	available
124:20	2:8, 25	assumed	85:19	23:24 44:9
128:11	arrived 48:5	72:21 73:9	86:13, 19	70:23
129:6, 6	aside 15:13	assuming	86:25	118:25
appreciated	asked 41:17	88:11	87:21	119:2
17:23	43:20 59:1	90:14, 24	88:18, 22	aware 10:22
appropriate	72:10	assumption	89:7, 16, 22	35:16
14:3	88:24	91:14	90:2	37:12 41:9
123:25	103:1	156:12	101:20	43:9 92:3
136:14	127:25	assumptions	104:18	92:12
approval	129:13	132:12	106:12	117:17
73:14 74:4	asking 15:25	attached	110:18, 25	121:18
85:13	67:25 76:6	7:25 65:24	111:5, 9, 15	141:17, 19
103:24	76:19	82:17	113:10, 17	142:11, 13
104:4	86:20, 23	attachments	114:20	143:2
approved	88:25 89:9	65:2	115:13, 23	145:3, 11
66:3 71:14	89:14	attempted	119:15	148:8
72:19 73:9	93:17	78:5	120:21	149:10, 19
73:11, 13	110:21	attend 30:1	121:2	awareness
73:18, 21	111:14	142:16	124:7, 12	15:8
73:22 77:3	125:18	attention	124:17, 21	
77:18 78:7	128:21, 25	155:13	125:1	<hr/>
79:15, 21	129:21	attorney 5:4	128:8, 12	B
				<hr/>
				back 12:1, 3

32:1 33:11	basis 98:11	85:16	29:22 30:8	128:21
34:16	109:23	121:14	31:17 65:5	borrowing
42:22 43:8	112:6	122:7,23	71:22 73:3	156:21
47:16	bearing	142:10	74:10	boss 102:25
52:15 54:4	136:9	143:5,12	77:24 78:1	115:17
55:14 66:8	155:6,9	143:15,16	82:25 85:3	bosses 35:1
68:15 71:6	Beaver 1:10	143:16	85:9 87:7	114:10
72:4 74:24	beginning	144:10,11	87:24 88:5	Boulevard
75:1 99:5	1:11 70:8	Berman 105:7	88:8 90:8	2:6,24
103:20	106:2	best 43:14	90:10,21	box 3:6,21
117:6	behalf 11:17	better	118:2	99:12
121:20,25	16:22	155:14	148:4	BPE 137:1
127:7	158:24	beyond 63:16	Blanchard's	Brainard
130:8	beliefs	109:3,5,6	83:18	22:13
139:22,25	128:18	110:15	Blankenship	35:11,13
148:11	believe	112:4,9	108:18,23	60:24
159:9	16:16	115:21	113:1	136:16
background	24:24 25:8	152:24	120:3,22	138:18
21:1 59:7	26:21,25	big 12:22	126:1	Branch 12:23
59:20	34:11,11	13:15	129:9	13:15
bad 135:1	35:23,25	17:16	Blankens...	17:16
Bandytown	42:1 43:3	20:11 23:9	112:13	20:11
49:11 73:8	44:12 48:6	23:12 27:3	115:4	23:10,13
77:4 110:7	61:14 76:2	29:10,13	120:7	27:3 29:10
110:9	95:3,6	30:11,22	123:8	29:13
111:22	110:9	31:1,13,20	127:21	30:11,23
115:20	122:11	34:21	128:20	31:1,13,20
147:3,11	126:3,5	35:17 39:3	129:1,8	34:21
158:1,2	128:18	39:11,23	blanket	35:17 39:3
barometric	131:22	41:9 44:23	32:19	39:11,23
42:2	132:8,22	63:14	bleeder 77:2	41:9 44:23
barred	141:15	64:25	77:4 78:7	64:25
156:11	145:6	92:16	126:21	92:16
Barry 2:10	believed	106:2	bleeders	106:2
8:20 22:8	120:5	120:3	80:11,12	120:3
based 33:23	124:3	139:11	block 69:4	139:11
77:1 86:23	129:14	145:16	blocked 70:1	145:17
87:1,2,4,5	believes	bigger 62:17	70:9	break 34:12
89:1	127:18	62:19	blocking	50:8,13
basically	129:11	Bill 29:25	69:4	100:12
18:24 53:8	belt 72:3,18	140:19	board 17:4,5	106:14,16
55:23 96:2	72:25 73:4	bit 18:21	17:7 42:21	106:17
99:23	73:12,13	29:2 40:14	50:2	109:8
102:24	73:19,20	40:15	body 126:24	117:1
107:10	74:10,22	51:19 52:6	bonuses	122:8,18
134:22	75:5 77:5	52:7,10	26:19	123:16
136:11	77:14	59:15	book 81:9	142:1
137:5	78:11,21	157:3	109:18	146:6,11
138:2	79:15,19	black 21:7	112:6	148:16,17
148:20	83:22,23	Blanchard	borders	154:5

breaks 123:16	called 25:8 49:23	117:10 118:13	129:12,14 130:2,4,22	134:23,24
bridge 103:4	calls 125:18	138:5	141:9	circuiting 135:17
bringing 43:7	capacity 110:21 147:5	certainly 15:18	changing 33:12,13	circuits 138:12
broad 32:16	car 53:3	CERTIFICATE 6:10 161:4	Chapter 16:25	circulate 34:13
brought 113:24	card 11:5	certific... 106:20 138:3	charge 20:23 30:25 31:3 107:11	circumst... 132:15
budget 26:10 39:14	care 18:21 19:2 23:7 47:18,20 48:2 62:1 130:18	certific... 21:5	charged 17:5	circumst... 13:14 40:20 67:7 71:24 72:11 94:10 140:13
build 34:16 40:8 45:5 45:7,7 100:3,5 101:14,15 101:16 117:4 121:25	carried 62:17	certified 35:10,12	Charleston 2:14,20 3:22 4:7 11:17 54:3 54:5	citation 34:6,15 92:15 105:11
building 73:5	carrying 83:4	certify 137:4,5,8 137:9,10 161:6	charts 65:3	citations 33:24 109:25
built 42:7 67:19,23 116:23 117:1,2,10	cars 129:24	certifying 1:27 136:10	check 35:14 119:8 138:9	cited 80:4 92:9
bunch 58:2	case 34:8 69:25 70:3 72:25 74:5 74:11 124:2 126:14	CFM 109:10 127:8	checking 28:11	claim 17:9
Burse 158:10	cases 111:21	change 10:21 28:19 30:10,17 31:19 32:15,23 34:5 40:7 62:13,16 63:17 74:2 95:20,22 96:14 137:2	chief 21:11 21:17,22 22:7,7,8 22:10	clarific... 16:3 128:11
business 47:19	case-by-... 109:23 111:18 112:6	chose 30:4	choice 12:16	clarify 159:17
B.S 21:2,2 50:16,17	Castle 25:21	Chris 9:21 29:22 31:16 65:5 73:2 74:10 77:24 78:1 82:25 83:3 83:7 85:3 87:7,24 88:3,5,8 90:8,10 118:2 148:3 158:10	choice 12:16	clear 46:14 110:19 132:21
<hr/> C <hr/>	categories 24:5	changes 32:2 32:6,21 33:9,23 44:22 45:9 77:3 78:7 96:6,7,9 96:19,24 98:5,20,20 99:4 103:14 124:5 126:2,3,6 126:16 127:17	chose 30:4	classes 51:18,22
C 2:1 3:1,3 4:1 8:1	cause 60:7 130:16 135:13 159:3		Chris 9:21 29:22 31:16 65:5 73:2 74:10 77:24 78:1 82:25 83:3 83:7 85:3 87:7,24 88:3,5,8 90:8,10 118:2 148:3 158:10	Clay 54:6 55:3
CAD 98:18 158:11	caused 122:15 140:9		Christmas 91:6,11	clear 46:14 110:19 132:21
calculated 30:5	causes 15:7 15:8		CHRISTOPHER 3:17	cleared 140:9
calculat... 53:8,11 99:13	caution 17:8		circle 95:23 95:25	clearly 15:16
call 30:7 39:23 40:2 41:11 46:22 84:14 102:23,24 103:7 148:3 159:9	caved 70:23 center 99:13 centralized 47:17,24 cents 11:25 CEO 127:16 certain 87:8 88:1		circuit	client 10:2 125:12 close 137:17 closed 135:9 135:10,16

135:22	company 18:5	conduct	101:23	92:19
136:1	43:15 63:4	114:13	117:16,18	copy 10:10
CLOSING 6:7	63:11	conducted	consult	37:22 38:1
closure	64:25 80:1	13:16	13:24	44:10,18
94:25	108:12	conducting	consultant	80:14 98:1
122:15	competent	48:16	145:20	117:12
coal 4:8	138:1	confidence	consulting	156:10,21
11:18 25:8	competently	125:7	145:15	Cornett
46:16,18	138:20	confiden...	cont 3:1 4:1	105:7
46:19	complaint	1:1 12:24	6:1	corporate
47:10	16:20	13:3,11	contact 16:8	110:20
52:12	complaints	14:7,10	16:19 17:3	correct
64:25	17:6	confiden...	17:7	10:16
66:19 71:9	complete	13:6 14:17	153:13	43:24
74:13	15:5	160:1	159:13	45:16,19
79:25	complied	confused	contacted	46:15,17
121:10	120:3	97:15	16:12	47:12
Code 16:25	143:14	136:25	contain	50:21
collabor...	144:8	confusing	114:7	65:25 66:3
151:9	computer	136:18	contempl...	67:3 68:6
college 3:5	29:16 36:1	connection	62:13	68:8 71:10
59:8	36:6,7	66:7	content 14:4	71:16
come 83:10	42:7 43:23	consequence	continued	78:17,20
98:21,22	43:25 44:5	82:20	5:6 53:12	80:5 83:13
98:25	44:8 49:12	consequ...	continuing	87:13,17
100:19	52:24 53:2	154:4	59:19	90:17 91:1
118:2	57:19 96:9	consider	contractors	91:25 92:9
152:17	97:10,22	119:22	28:1	102:16
comes 96:10	97:24	consider...	control	104:25
100:16	145:25	41:21	40:11,12	111:22,23
comfortable	156:14	consider...	42:3 80:9	115:22
75:22	157:22	155:2	controls	120:8
coming 14:16	concern	considered	117:9	123:12
17:14 99:7	69:23	12:7 16:14	137:7	124:6
comment	concerned	33:13	conversa...	129:17
129:4	69:14	42:20,25	14:4	130:5
142:6	78:17	43:12	convey 96:2	131:21,24
comments	concerns	consolid...	conveyed	132:2,4,17
142:20	77:22	47:17	154:20	132:25
common 67:9	CONCLUDED	151:4	conveying	133:1,20
67:20 70:6	160:8	consolid...	99:8	134:16
71:11,13	conclusion	48:4	cooperation	155:22
72:4 82:7	14:5	constitutes	15:23,24	156:5
91:12	concrete	13:10	16:18	corrections
135:23	50:3	constructed	159:2	32:1
commonly	conditions	101:9	coordinator	correctly
24:19	13:13	116:16	146:3	42:12
companies	32:23	117:13	copies 82:11	156:9
47:3,9	33:12,14	construc...	82:16	correspond
63:6	41:8	100:14	84:13	39:5

correspo... 26:9 79:10	109:21	143:3	62:16,20	161:16
cost 100:13	crossing 131:2	dealings 33:1 37:25	62:22 63:1	described 55:25
100:16,21	cubic 109:9	83:9	98:25 99:6	74:17
100:23	146:10,14	133:15	101:1,4,7	describes 95:16
counsel 3:23	146:15	deals 45:20	102:2,7	describing 26:2
4:8 125:12	cumulati... 84:14	114:8	146:5	DESCRIPTION 7:3
142:6	current 29:12 30:2	dealt 53:2	148:7	deserve 17:19
161:14,17	39:5,8	122:12	decisions 98:21	design 29:14
County 54:6	70:19	December 63:18,24	102:9	29:17
55:3	96:21 97:9	64:23 65:4	decline 12:14,17	30:21
couple 49:8	117:12	65:6,25	declining 12:14,15	40:22
54:12,17	145:5	66:3 68:14	decrease 126:11,20	49:11
55:16,17	currently 44:20	71:7,14,23	130:8	136:1,8
65:2	curriculum 51:11,16	72:12 74:9	deep 69:11	143:14
113:11	51:25	74:19 75:4	144:14	145:4
150:10	C-137 1:10	76:24	deficien... 37:14	155:9,19
153:21		77:11,22	define 39:8	157:10
couple-m... 50:8		78:3,16	121:1,7	designed 74:12
course 41:18		79:12 80:4	definite 103:22	144:3
110:24	D	81:12	definitely 82:5	155:12
112:2	D 5:1 6:1	82:20 83:4	131:15	designs 155:16,23
courses 24:21	8:1	83:12,19	134:6	detailing 15:6
51:24	daily 83:1	84:2,24	degree 30:24	details 41:22
53:19	133:15	88:6,17	50:16,17	105:18
85:17	Daniel 11:6	91:5,8,10	degrees 50:23	detection 112:22
court 1:7	11:8	91:12,19	51:10,18	determine 159:3
15:14	Danny 158:10	118:20	54:23	determined 31:21
73:17	158:14	121:18	120:1	detrimental 120:6
coworkers 17:19	data 28:12	122:21	Department 2:4 8:6,9	124:5
co-op 51:2,5	date 12:9	126:6,10	depend 30:19	develop 29:8
52:5,14	78:2 161:9	130:22	39:25	29:10
53:22	dated 64:23	132:22	140:13	145:24
created 142:13	65:4,24	140:18	depending 59:24	developed 36:1 38:3
creates 69:5	day 25:2	141:10	134:21,23	49:23
cribs 67:19	25:2	143:2	depends 97:23	developing 33:11
67:23	36:3 40:1	decide 52:12	99:10	
criminal 14:9	40:3 81:7	80:1	deposition 161:8,9	
critical 15:24	140:10	decided 30:17	depositions	
17:17	150:22	72:23		
cross 13:25	days 17:10	73:23,24		
126:20	42:1 82:22	147:21		
128:16	85:13 86:1	148:1		
crosscut	91:16	decider 31:14		
	deal 63:8	deciding 36:4		
	71:10	decision		
	112:19			
	141:3			
	dealing 48:8			

112:22	102:20	63:12	103:18,20	90:10,14
development	105:3,6	78:13	118:14,19	91:4
44:6 136:4	disagree	114:24	118:24	duly 9:2
140:19	119:13,19	123:2	130:15	161:8
dewatering	120:19	147:1	158:11	duties 19:7
40:23	121:22	149:14	door 100:18	151:6
died 150:22	123:13,18	discussions	doors 100:14	152:11,13
difference	123:24	78:15,23	100:25	dynamics
69:11	125:11	79:1,2	101:7,9,11	51:23
70:10	disagreed	disruption	101:15,23	59:10
101:18	120:5,17	122:13,16	101:24	
136:21	120:25	distance	102:4,8	E
different	121:1,9,11	75:3 77:6	116:15	E 2:1,1 3:1
30:6 50:23	disagreeing	District	117:3,19	3:1 4:1,1
55:24	123:7,7	20:10	134:18,22	5:1 6:1
88:24	disagree...	63:21 83:4	135:2,4,5	8:1,1
89:11,14	66:18	divided	135:7,8,16	earlier
89:17 90:3	121:16	21:13	135:16,20	19:10
96:18	122:24	40:25	146:6	77:13 95:3
120:1	123:11	Doctor 35:18	double-s...	111:4
differen...	disagrees	35:20	64:23	112:5
100:23	124:10	36:13,24	draft 82:8	118:22
differently	discharge	41:18	82:12	119:6
66:15	16:16	44:20	drafting	122:11
difficult	discipline	48:16	27:22	139:25
74:23 75:8	19:24	49:13	drainage	152:5,6,21
77:14,21	discrimi...	145:14	45:22	159:5,15
digital 35:2	16:17 17:2	152:22	draw 87:11	early 61:15
35:9 97:5	17:5	153:7	95:25 96:7	61:15
97:6 98:8	discuss	156:25	97:3 98:1	easier 77:15
117:12	15:12	157:19	98:5,14	95:21
dilution	20:10 30:2	document	99:12	East 2:13,19
130:11	39:24 40:5	26:2 43:22	100:7	3:19 4:5
dimensions	46:4 79:6	64:22,23	drawing 35:9	Ed 151:23,24
30:4	159:6	65:12	42:21 50:2	educational
direct 19:15	discussed	71:15,21	72:14	21:1
45:8 84:10	31:22 32:2	72:1 96:5	75:14,17	effect
130:14	32:3 44:2	documents	97:7 99:15	100:16,19
132:9,11	49:25	65:15 76:8	117:11	effective
direction	62:22 77:6	137:22	drawn 99:16	130:17
41:24 42:4	95:3	138:21	drew 127:4	effectively
directly	100:15	doing 17:17	drill 25:14	147:22
51:12	120:14	17:20 42:1	drops 38:13	effectiv...
130:6	140:18	53:11	38:14 42:2	38:5
131:25	142:9	55:24	42:3	123:23
132:24	discussion	58:20 59:9	drove 12:1	126:13,21
133:15	5:5 6:9	66:24,25	due 73:5	eight 24:24
140:7	10:19	95:16 96:3	74:23 77:2	25:1,11
director	36:21 41:5	100:24	77:5 78:6	157:14
11:21,22	44:22	103:12,16	89:13	Eighteen

54:22	26:4 28:15	88:15	Eric 23:3	5:11,13,19
EIT 20:21	31:4 35:7	98:22	31:3 38:14	14:1 17:12
either 35:7	36:11	102:2,7,9	40:17 94:9	41:15
45:11	53:23 57:5	102:10	94:11,17	48:13
87:15	57:13	121:16	118:3,5,23	50:14
101:10	58:15,18	122:25	119:2	128:16
116:23	59:4 85:5	123:12	134:10	example
125:11	106:25	126:3,5,23	145:7	94:23
132:22,23	108:8	127:4,18	151:6,7	102:17
133:3	134:5	129:11	Erik 2:22	109:8,24
138:22	138:5	137:25	8:7 41:17	110:14
Elk 9:12	151:5,9,12	152:16	erroneous	112:25
18:21 23:7	152:12	English	117:20	116:15
23:8,18	engineering	121:6	errors 28:12	118:20
27:6 46:25	18:20 19:1	enhancem...	28:16	123:19
47:15 48:2	19:8 21:10	112:16	137:15	147:8,18
else's 101:4	24:3,9,16	113:3	escapeways	examples
138:16	30:5 31:10	114:2,17	80:12	121:15
Emerald 51:7	36:8,10	115:7,20	especially	exceed
52:22	40:6,16,22	ensure 154:7	101:8	108:13
emergency	46:15,21	entering	ESQUIRE 2:3	109:1
25:14	47:4,13,14	145:22	2:10 3:17	112:16
employed	47:15,20	entire 21:12	4:3	113:4
26:5 37:10	50:17,18	78:22	Essentially	114:3,17
43:18	51:11,13	121:13	103:3	115:7
46:18,19	51:25	entities	evacuated	exceeding
161:17	52:13,23	21:13	139:19	115:21
employees	59:3 62:22	entitled	evacuation	excuse 29:1
19:22	63:9 66:20	89:14	25:14	67:24
encompass	71:9 88:16	entries	evaluate	147:19
41:23	91:3 92:11	67:10,14	38:5	148:14,14
Energy 114:3	101:14	69:7 70:1	evaluation	exercise
127:17	121:10,17	70:3,7,22	27:14	16:14
Energy's	122:25	71:1	30:22	Exhibit 7:1
112:15	123:12	entry 66:7	evaluations	7:25 10:25
115:5,8	126:5	66:16 67:9	27:18	11:1,4,9
enforced	134:14	70:4,9,10	events 13:14	84:19,20
70:5 74:12	136:3,12	70:23	everybody	exhibits
enforcement	145:11,15	71:11 75:6	47:2	84:15
13:3,8	150:13	95:21	everythi...	existing
14:14	151:4	entry-level	138:10	96:15
engaged	engineer...	57:3	exact 67:6	exists
104:9	101:3	environm...	exactly	112:10
engineer	engineers	21:14 58:1	18:12	expecting
18:7,14	21:18	equipment	39:17,21	111:11
20:13,17	22:24	112:16,20	127:20	experience
21:11,17	23:14 47:3	113:2,8	143:23	17:6,24
21:23 22:7	47:9 56:3	114:2,11	EXAMIANTION	53:14 57:7
22:8,9,10	60:15	114:16,17	5:15	60:9 61:7
22:14 24:7	87:10,16	115:6,19	Examination	61:10

86:24 87:2	128:22	failure	126:9	fill 12:10
87:5 89:1	130:21	82:20	128:14	12:13,15
91:13	136:2	149:6	133:20	23:18
138:18	160:2	fair 58:12	136:6	filled 12:5
experienced	externally	115:11	138:14	final 30:7
61:12	78:25	128:16	141:6,12	31:15,16
140:23	extra 23:24	140:16	Farley 2:16	62:25
141:3,4,6	extremely	familiar	5:9,14,18	98:25 99:6
141:16	75:8 77:14	25:22	8:13,14	101:19,21
explain 81:1	77:20	36:14,18	16:21	102:7,10
125:21	eyes 99:24	36:19	28:25 29:4	102:10,15
128:19	119:7	108:14	36:22 37:1	102:23
129:1	137:17	143:6	41:16 47:8	financially
explained		144:20	48:11 49:7	161:18
82:13	F	152:25	49:10 50:9	find 79:15
83:18	face 72:3,18	families	farther	82:16
explaining	73:12,21	17:18	77:16	finding 91:9
122:24	78:22	59:24	fast 73:16	fine 64:11
explanation	83:23,24	fan 36:4	85:17,18	76:14
119:16	122:1	49:11,15	fatalities	124:13
exploration	123:6,15	49:22,24	13:14 15:7	128:6
27:13,15	126:12,20	50:1 70:12	federal	136:24
explosion	130:13	73:6,8	13:17	finish 47:7
12:23	143:17	74:23 75:7	14:16 21:4	69:17
14:23	144:12	77:2,4,4	108:13	87:22
17:15,21	facility	78:7	fee 11:23	104:19
19:8 37:19	47:11	109:25,25	12:7	finished
39:13 43:5	fact 82:1	110:6,7,9	159:23	15:25
44:13,16	90:10,14	111:22	feel 61:19	33:10
44:23 60:4	91:4 98:19	115:20	61:21	fire 19:22
61:1 83:8	100:21	127:7	75:22	34:25 62:3
92:3,17	122:17	147:3,9	126:10	firefigh...
103:19	123:13	far 24:4	feeling	25:13
106:8	125:10	28:11,12	130:25	firm 11:14
139:16	139:18	28:15	feet 109:9	first 9:2
148:12	factor	29:14	146:11,14	17:18 24:6
149:1	100:13	31:17 33:8	146:15	24:20,25
152:17	145:12	34:22,23	fell 94:2	29:17 43:8
156:8	155:20	35:4,6	fellows 61:5	53:14
extended	factored	39:20	87:16	55:13
134:19	155:25	42:10 44:2	felt 58:14	56:22,25
extensive	factors 30:6	44:21 45:1	123:3	60:11,12
149:6	145:8	45:3 46:3	fifth 60:23	60:22
extensively	facts 81:22	82:2,12	fight 119:24	90:18
157:3	81:22,23	99:6	figure 60:7	106:21
extent 14:11	81:25	100:17,20	file 16:19	116:5,7,12
19:25 35:8	111:8	102:4,22	17:9 35:9	117:4
40:13	failing	107:16	92:22	five 17:25
61:22	148:9	120:17	96:20	27:10,12
95:11	149:1,3	123:6	145:25	37:19

43:15,16	102:20	49:24 50:1	59:15 71:6	141:1
91:2,13	105:4	75:2	73:14,20	159:16
107:12,13	114:9	161:16	89:9,17	goals 17:23
130:1	116:18	future 14:22	103:6,9	18:22,23
142:17	138:6	15:9	136:23	goby 41:1
five-and...	154:9	140:14	138:7,9	goes 51:15
51:9	foremen 35:1		155:17	62:9 63:16
five-star	114:14	G	get-go 66:25	96:8 97:21
129:24	forgot 49:8	G 8:1 63:21	give 12:12	139:25
five-year	form 12:5	gate 145:4	77:23 87:6	going 34:13
39:3,6,14	44:9 82:17	gathered	99:5	36:5 42:11
floor 2:7	97:5,6	12:24	109:24	42:22 45:4
148:18	formal 13:25	general 8:21	137:11	45:5 46:2
149:6	former 59:17	29:14,17	139:3	51:4 59:8
flow 134:25	forms 12:4	39:20 41:8	given 16:13	59:9,11
flowing	12:11,14	81:9 93:15	125:22	62:1,17
138:12	12:15	130:25	159:16	64:22 67:9
fluids 51:14	forth 42:22	134:13	161:10	69:11 73:4
51:22	65:3	144:14	gives 59:7	73:5,16
folks 61:7	found 42:7	generally	giving 15:19	74:25 77:7
follow 80:3	122:14	62:12	76:17	79:21
137:14	four 18:15	65:18	glad 113:23	87:22
followed	21:18,21	68:19	go 16:1	95:20,22
83:22,24	33:19,19	69:16,19	24:11	96:14
following	37:19	87:14,20	25:20	100:5,5
42:17	55:23	88:4 91:11	33:21	110:14
43:21	60:21 63:6	92:7,25	34:16	112:4
121:23	107:22,23	98:10	35:13 38:4	117:6,14
FOLLOWS 9:3	129:25	101:12,17	38:9 45:6	122:1
follow-up	134:19	101:25	52:12	123:6,14
159:9	138:4	102:22	54:16	123:16
foot 69:9	142:17	105:15	62:18,19	125:21
footage	four-and...	144:16	68:5 70:2	126:12,19
26:15,18	51:1	146:4	72:14 74:8	127:10
26:19	frequently	generating	74:25 75:6	128:14
force 66:16	15:10 81:4	97:18	79:15	130:8,8,13
77:14	fresh 59:8	gentlemen	82:11	131:7
forced 66:11	friends	146:2	87:22	137:1
66:23	17:18	geologic	94:14 97:2	138:14
77:19	front 75:1	27:14	99:13	141:18
103:21	full 9:6	geological	103:20	159:24
131:22	152:13	27:18	107:5	good 73:24
forces 73:5	fully 15:19	George 60:15	114:23	100:1
foregoing	72:16,16	61:16	115:21	123:3
161:8	78:21	150:11	116:25	128:11
foreman 31:7	161:12	151:8	117:11	government
31:23	function	153:6	123:15	13:12
45:11	22:19	getting	128:14	112:2
62:23	47:10	34:22,25	136:12	Governor's
98:24	further	46:8,10,11	138:11	8:24

grade 55:6	60:12,22	<hr/> H <hr/>	145:10	59:23
graduated	62:20,24	H 4:3	headgate	Hendrick
52:15,19	66:14,14	half 157:18	70:18	158:17
53:13	66:23	halfway	122:23	hereto
grand 155:8	75:18	131:5	133:4,4,9	161:18
granted	81:15,21	Hampton 2:3	134:4	hesitate
10:21	82:5,13,24	5:4,7,16	146:20	159:13
Great 111:16	85:3 86:8	5:24 6:8	148:8,16	hey 61:25
greater 15:7	95:19	8:3,4	149:5,11	119:9
greatly	97:16	12:18 15:1	health 1:9	hhave 44:18
17:23	102:17,23	15:4 48:14	2:17,23	High 55:3
green 11:5	103:19	49:5 50:11	3:11 8:8	hire 19:22
group 44:1	105:20	84:16	8:15,18,22	hired 22:5
52:23	106:21	106:12	12:19	24:20,25
102:9	107:1,1,12	150:9	13:18,19	27:25 28:1
guarantee	109:4	153:18,22	16:23	56:2,22,25
134:12	114:6	158:23	120:6	57:10
guess 19:2,9	115:9	160:4	124:6	60:22,23
21:2,11,12	116:5	hand 51:15	144:2	60:24,24
22:5,6,19	117:6	51:15 83:4	158:25	61:1
23:7 24:8	118:5,8	97:4 98:1	hear 22:18	ho 123:17
24:18	119:9	handbook	26:24	hold 50:16
25:21 26:2	120:11,13	114:7	36:17	88:23,23
29:22 30:7	121:21	handed 16:9	116:9	hole 46:1
30:16,24	122:17	handle 70:11	heard 67:22	holiday 91:7
31:6,16,21	123:19,20	hands 99:6	105:17	honest 59:16
32:19	133:14,23	137:18	108:16,22	91:7
33:13	136:8	handwritten	108:22	hope 15:7
34:17,25	140:13	97:20	hearing 17:5	hourly 19:13
35:3 36:2	141:2	happen 34:1	29:5	hours 24:24
36:18 37:3	143:9	42:11,11	hearings	25:1,11
37:15,17	146:2	110:4	14:23	134:20
37:21 38:1	147:5	130:9,17	142:17	house 11:25
39:15,25	148:3,7	happened	Heath 23:3	Hudson 22:8
40:5,13,14	149:7,9	60:7	heave 148:18	human 134:13
40:24 42:3	151:7	hard 75:3	149:6	hypothet...
42:5,22	153:2	91:9	height	75:23 76:1
43:10 44:1	154:20	Hardman	100:10	76:7
44:14 45:1	155:6,8,17	63:21,22	hell 29:5	147:18
45:3,25	158:10,15	64:24 65:5	help 17:22	hypothet...
46:3,5,10	Guthrie 4:4	71:22	23:14,17	75:13
46:13,18	11:17	Hardy 128:14	81:24,24	hypothet...
47:2 48:20	guy 36:24	hat 21:7,7,8	118:22	75:22
48:25	57:3,4	106:19	119:1	
49:17,22	152:3	107:1	152:17	<hr/> I <hr/>
51:9 52:19	guys 23:4	haulage 53:3	helped	ID 64:25
52:23,24	39:23 40:7	head 63:21	151:10	idea 27:19
53:3 54:3	60:25	80:8	152:23	43:7 50:1
55:13 57:3	143:14	111:25	153:3,12	59:9 66:24
58:13,21		113:20	helpful	85:2 99:7

100:1	includes	35:2,3,9	intake 85:17	59:21
112:17	83:12	38:8 41:3	intended	156:13
ideas 46:3	including	129:11	78:21	158:9
119:12	15:19	134:16	135:24	159:3
identifi...	income 12:8	138:4	intention	investig...
11:2,10	inconsis...	145:25	129:9	14:23
84:21	137:16	159:12,14	interchange	investig...
IDENTIFIED	incorporate	informed	118:3	8:7
7:3	44:5	83:1	interested	investig...
identify	increase	initial	161:18	13:12
11:14	130:10,14	24:18,22	internal	148:15
identity	increased	32:24 33:5	156:15	involve 53:7
14:3,7,10	130:21	72:19	internally	involved
idiot 59:13	incredibly	73:18	78:15,25	26:11 42:5
II 36:2	74:22	initially	interpreted	44:25
illustra...	Independ...	77:17	66:15	45:18
95:19	37:10	145:6	interrupt	48:21 50:4
im 86:18	152:8,9,12	153:14	125:23	63:12,17
immediately	153:4	initiated	interview	73:1 83:7
17:8	independent	32:22 34:5	12:12	86:18
impact 69:15	3:4 8:25	injured	13:10 14:5	88:16 89:3
69:17	36:11	112:24	16:10	89:4
implemented	indicated	input 17:16	interviewed	101:13
32:4 74:12	43:23	29:23,25	56:19	118:19
78:6	129:13	29:25 82:3	intervie...	121:14
importance	indicates	94:16 98:4	15:11	130:10
95:14	65:21	99:9	interviews	136:4
important	117:23	101:13	11:22	139:13
60:9 95:11	indicating	inputs 96:9	15:10 17:3	140:17,22
159:2	70:18	inputted	introducing	141:9
impossible	indirect...	97:21	52:5	147:25
75:8,11	132:12	insomuch	introduc...	153:2
77:14,17	indirectly	133:18	52:11	156:12
77:21	132:3,24	inspector	inundation	158:8,17
improvem...	individual	3:10	139:20	involvement
146:9	33:9 36:23	122:14	140:9	45:2,24,25
inaccurate	individuals	installa...	inundations	46:2
67:25	15:12 30:2	42:19	139:11	152:20,25
inadequate	influence	installed	investigate	153:8,10
133:3	77:2 78:6	143:8	13:13	153:15
134:4	inform 16:24	instances	investig...	involving
inby 78:11	information	111:17	17:15	46:12
inches 68:21	12:24 13:2	117:17,24	156:17	in-mine
69:10	13:5,7,11	instituted	investig...	71:10
144:16	14:8,21,21	114:4	3:4 8:25	IRS 12:5,8
include	15:9,20	instruction	12:20,21	issuance
45:22 46:7	16:3,7,8	25:25	12:22 13:7	122:15
114:11	16:12 17:4	insult 59:19	13:16,20	issue 15:6
included	17:22 30:7	insulted	14:9 15:5	31:13 41:1
14:6 15:10	34:22,25	59:15	16:11,19	69:21

111:12	Kentucky	62:23	111:24	154:15,22
159:23	145:15	63:15,19	112:20,21	154:23,23
issued 34:6	kept 119:24	63:22 67:7	112:24	156:5,10
37:18	killed 60:2	67:15,16	113:3,6,12	157:2
91:24 93:9	61:1	68:18 69:6	114:5,14	158:11,12
94:25 95:8	kind 21:12	69:8,10	115:14,19	158:17,18
122:3	24:4 33:19	72:7,16	116:6,8,10	Knowing
issues 40:4	37:15 44:3	74:20	116:11,14	134:10
119:3	52:5 53:12	75:15,21	117:24	knowingly
142:9	57:3 59:15	76:5,12	118:11	132:1
<hr/>	59:17 70:7	77:1,10,24	119:9,21	knowledge
J	81:1 88:23	78:10	119:22,23	37:20
<hr/>	92:2	79:17 80:7	120:2,19	45:23 68:2
J 3:17	118:14,22	81:21 82:1	120:22,24	68:4,9
January	118:22	82:4 83:3	122:6	76:6 81:19
105:13	119:7	83:17 86:1	123:10,21	84:10
jeopardize	123:10	86:2,3,6,7	124:23	90:22,23
14:8	128:18,21	86:8,10,14	125:21,22	114:2
jeopardized	153:1,2,13	86:15,21	128:23,23	118:4
13:4	knew 37:21	87:8,15,18	129:21,25	140:24
job 23:19	37:21 56:3	88:9,20,25	130:23	156:22
51:4 53:21	68:19,20	89:3 90:4	133:2,6,21	known 37:4
54:7,10	74:21	90:13,17	134:2,6	68:23
55:9 56:18	75:10	91:6 92:5	135:22	133:11,18
56:20,21	77:13,20	92:8,10,11	136:5	139:24
59:2,10	91:21	92:13,14	137:15,24	140:2,4
151:18	140:3	93:6 94:11	138:3,9,11	knows 110:22
jobs 54:17	know 14:16	94:13	139:2,10	111:14
54:21	22:2 23:15	95:22	140:2,3,11	Koerber 2:10
John 3:9	26:18	96:13 97:3	140:15,25	8:19,20
8:17	27:14,19	97:14,20	141:6,19	9:5,9,14
judge 14:12	28:23	98:15,15	141:21	9:18,22
judgment	29:12	99:1,3,11	142:23,24	10:1,5,9
103:7	30:12 31:2	99:25	143:22	10:13,18
jump 103:4	31:6 33:5	100:4,10	144:13,13	10:24 11:3
June 39:16	34:2,11	100:11,18	144:16	11:7,11,19
150:25	35:24 37:2	100:20,21	145:1,19	<hr/>
junior 53:23	38:7 40:1	101:2,5,10	145:21	L
57:13	40:22	101:11	146:5,7,14	Labor 2:4
58:14	41:22,25	103:4	146:20	8:6,9
justify	42:8,9	105:8,11	147:6,24	lack 91:18
144:11	43:10 44:3	105:15,18	148:15,25	104:16
<hr/>	44:21 45:4	105:19,22	149:7,8	155:14
K	45:9,25	105:24,25	150:20,24	laid 29:12
keep 12:23	47:22 49:1	106:3,4,5	151:1,16	76:2 148:1
13:2,10	49:4 51:20	106:6	151:19,23	land 20:15
14:10 73:4	53:2,11,22	109:2,13	152:11,13	20:19
89:8 93:1	54:11 59:7	109:14,16	152:20,24	large 100:17
97:12	59:10 60:2	110:3,16	153:6,10	larger 110:7
98:12	60:6 62:1	110:17	153:11	110:10
112:23				

law 3:5 13:8 14:11,13 14:14 66:15 109:6 112:4,8,9	lessen 123:13 126:13,19 130:12	40:17 94:11 118:3 140:7 151:6	52:18 54:20 80:3 106:19 144:14 150:24 157:12,13	138:24
laws 14:17 73:13,19 113:8	lessened 75:4 122:1 123:5,22	Lilly's 94:9	longer 48:2 72:24 77:6 150:15	looked 93:12 93:18 94:11 101:12 131:4
lawyer 59:5	letter 16:9 63:20	limits 45:2	longwall 29:12 30:2 32:25 33:6 33:7,20 34:15,18	looking 28:12,16 28:16,20 59:22 93:13 119:7
layout 30:4 39:5,9,11	64:23 65:4 65:4,7,20 65:24 71:21	line 34:16 99:15,15 121:20,25	42:19,20 42:23 43:1 43:12 44:6 63:15 66:8 70:19 74:24 75:2 77:2,4 78:6 95:1 110:12 122:2 123:6,14 123:14 126:12,20 130:13 142:11 143:7,8 144:12,21 145:5 147:22	looks 102:22
layouts 40:12	72:10 73:3 74:4,10 78:1 79:14 79:16,18 79:23 80:5 81:12 82:2 82:18,25 83:5,12,19 84:2,9 90:11 159:15	lines 53:24 98:17 100:19	lot 35:7 37:18 41:23 51:16,16 51:17,21 59:12,18 59:18 60:8 82:18 88:24 91:5 99:10 100:21 101:9,11 109:25 112:20 119:25 128:20 132:11 142:9	lot 35:7
leader 16:10	letters 82:7 82:8,9	listed 19:9 42:5 83:21	lives 130:4 131:19,23 132:4,24	loud 15:15
leading 125:3,4 127:6 158:2	let's 24:5 37:16 74:16 75:16,16 84:14 102:13 106:16 114:23 127:15 132:21 134:19 140:5	little 18:21 29:2 40:13 40:15 51:19 52:6 52:7,9 54:18,19 54:20 55:15 59:15 129:4 139:12 157:3	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	loudly 15:16 Lowe's 54:18 55:9,15
learn 58:19 59:12,18 59:19 112:1 139:14	learned 15:20 59:18 91:24 136:13	lives 130:4 131:19,23 132:4,24	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
leave 16:6 54:2 61:13 124:1 159:11	leave 16:6 54:2 61:13 124:1 159:11	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
leaving 134:18	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
Lee 4:5	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
left 54:7,9 55:8,23 61:14,15 61:15 62:4 135:5,7,8 135:13,21 151:17,18	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
legal 14:2 112:16 113:4 114:3 115:7,21 146:21	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
length 78:22	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55:9,15
	leaving 134:18	loaded 37:17 local 22:20 locate 147:21 located 47:25 48:1 location 33:15,21 47:18 49:24 97:12 locations 117:10 137:7 long 12:1 18:14 24:22 43:18 49:19 50:25	long-term 39:2 85:10 85:14,15 85:25 86:11	loudly 15:16 Lowe's 54:18 55

33:16,22	121:21	140:24	81:3 82:6	60:12 61:7
making 15:14	122:3,12	141:7,16	84:12,18	61:25 62:4
15:24 72:4	122:14	142:23	84:22	63:14,16
111:3	123:1	146:8,14	85:22,24	63:19 67:6
man 74:25	124:1,4	156:2,15	86:16,22	67:23 68:2
141:7	126:6,10	158:9	87:3,9	68:4,20,21
management	130:22	Massey's	88:2 89:5	68:24 69:4
21:9 22:11	132:22	154:1	89:12,19	69:10
31:24 32:2	140:18	matched	89:25	74:24
39:22 48:9	141:10	39:17,20	90:12	75:15,19
98:4,23	Marfork	matching	101:22	75:22 78:8
99:17,20	18:21 23:8	39:21	104:20	79:5 80:19
102:16	46:24 47:5	math 55:5	106:15,18	80:25,25
104:21	47:14,23	matter 70:2	110:23	81:8,9,15
manner	47:25	131:7	111:2,7,13	81:24 83:1
130:20	mark 56:6,7	Matthew 1:3	111:20	84:25 86:9
map 34:20,23	56:8 60:16	5:10 9:2,8	113:14,22	86:15
35:10 42:3	61:15	McCombs	113:25	87:24,25
57:18,25	116:23	19:12	114:22,25	91:11
74:8,14	marked 11:1	21:17,22	115:3,18	95:16,19
92:11	11:9 84:20	22:4 35:11	116:1	96:1 97:23
95:14,25	Marshall	35:13 41:2	119:20	97:25
96:7,7,8,9	22:3,4	45:15	120:23	99:23,25
96:15,18	Massey 18:1	136:17	121:4,8	100:14,15
96:20,21	18:18,19	138:19	123:9	100:17,24
96:22,23	22:16,20	McCroskey	124:9,14	101:10,17
96:24 97:6	22:21	61:3	124:19,24	102:5,24
97:8,9,10	24:18,22	McCuskey	125:13	103:4,22
97:12,13	28:1 44:12	3:18 9:25	128:10	103:23
97:18,23	44:15,20	10:20	129:5,16	104:16,21
104:14	46:16,18	MCGILEY	132:20	104:22
116:14,23	46:19 47:9	158:13	141:22	105:9,16
117:3,5	54:14	McGinley 3:3	142:10	105:18,21
136:19	55:18,21	5:20 6:4	153:20,25	108:16
137:5,17	56:2 57:13	8:23,24	158:4	109:2,17
138:24	58:7,18	22:17	mean 28:11	110:19,21
mapping 19:3	106:24	26:23 33:3	29:24 30:9	111:1,10
41:25 58:8	108:8,12	36:16 37:6	30:13,20	111:17,19
62:9	108:20,25	50:7,15	31:3,22	111:23
mapping-...	109:20	64:8,13,17	32:19,20	112:5,19
92:6	110:14,20	64:21	32:24 33:8	112:21,25
maps 20:10	111:12	65:10,14	37:22 39:8	116:2,2,6
20:24	112:1,3,3	67:1,13	39:17,20	116:22
27:22	112:8,15	70:15 71:5	40:1,13	117:13
35:12 65:2	112:21	72:9 73:7	44:12	118:13,24
95:11 98:5	114:3	75:25 76:9	48:24	119:7,8,18
98:11,12	115:5,8	76:13,18	49:19 50:3	119:25
145:23	126:16	76:23 77:9	51:3,14	124:23
March 94:24	127:17	78:14	56:13 58:2	125:6
118:21	129:11	80:13,22	59:2,8,10	127:5,7

130:7	150:10	41:8 44:23	147:23	134:14
131:5,8	152:6	45:11,19	148:11,13	minute
132:14	159:5,15	45:23,24	148:20	146:14,15
133:13,16	mentioning	46:7,9,11	157:6	miscella...
134:21	62:18	46:12 48:9	mined 145:23	12:9
135:9,18	merely 125:9	51:7 52:22	miner 16:13	missing
137:16,20	messing	57:14,18	109:10	65:19
138:22	97:13	58:7,18	112:24	72:15 73:2
139:2,9	met 44:1	59:17	115:17	misunder...
140:5	119:25	62:23,23	142:11,14	147:19
141:2	methane	63:15	143:4	MIT 24:18,19
145:21	139:11,20	64:25,25	144:8	model 36:6,7
147:6,20	140:9	67:20 68:5	miners 2:17	42:7
147:24	middle 61:16	68:11 69:7	3:11 8:15	155:13
148:24	147:22	69:22 77:8	8:17,22	modeling
149:3,8	midnight	80:1 82:21	13:19	36:2 53:11
154:4,6	26:12	83:2 85:5	16:23 17:1	53:18
155:1,4,8	Mike 60:15	91:15	17:6	modifica...
155:10,18	61:14	92:16	112:23	30:21
155:21	mile 11:25	93:16	130:4	modified
156:6	mileage	94:25 96:6	131:19,23	73:19,20
meaning	11:24	96:7,20	132:4,24	money 12:4
131:12	Millen 60:15	97:8,8,10	144:2	12:10,15
means 14:11	61:14	98:23,23	158:25	month 26:13
28:23	Miller 22:3	102:19	Miners'H...	54:13 55:8
30:12 96:2	22:4	105:4	2:11	151:14
116:11,11	million	107:17	mines 15:24	months 37:19
119:16	127:8	114:9,14	26:15 27:6	52:19
120:19	mind 74:3	116:18	27:7,8,9	53:25
meant 92:24	120:7	117:11,12	27:10,22	54:12,22
120:22	129:8	118:5,9	38:16,17	54:22
mechanical	mine 1:8	120:6	38:19 94:1	55:11,16
21:2 50:16	2:23 8:8	124:6	94:6	55:16,17
51:17,21	12:19,23	126:4,7,16	106:24	107:8,14
meet 20:10	13:17	126:18,22	107:10	107:24
meeting 36:2	16:16 18:7	126:25	134:1	143:11
meetings	19:3 22:11	127:1,18	140:6,6,12	157:14
30:1	23:4,6	128:5	Mine-South	Morgantown
members	24:6 25:20	129:12,15	12:23	3:7
12:19,20	25:21 26:8	129:22	13:15	Morris 56:6
13:7,9	26:8 27:6	130:2	minimum	56:8 60:16
memorized	29:8 31:7	133:16,25	110:11	mouth 101:7
81:9	31:23	134:20	146:13,21	move 33:11
mental	32:23,23	136:14	mining 16:24	100:11
112:10	33:6,7,13	138:6,12	17:24	moved 33:21
mentioned	33:14,19	139:19	18:14 21:4	43:1 52:22
19:10	34:7 35:1	140:9	22:24	movement
22:23 74:5	37:23 38:7	141:11,15	51:17,20	130:12
104:22	38:9 39:3	145:23	51:21,24	moving 33:10
105:17	39:5,12,22	146:16,23	52:12	33:15

43:12		135:9,18	Notary 1:7	offer 11:22
mp 45:4	N	needs 125:7	161:5	offering
96:13	N 2:1 3:1	125:7	notation	89:20,23
MSHA 8:8	4:1 5:1	neither	95:22	offhand
13:1,17,23	6:1 8:1	161:14	notations	113:5
15:5 16:11	name 8:4 9:6	never 27:4,5	97:3,6,11	145:13
16:14,19	9:7,19	30:14	note 72:16	office 2:5
19:5 33:24	11:16	38:16	notice 1:6	2:11,17
34:6,6,14	14:12,13	57:14,16	11:12	3:11,13
38:4 63:20	14:14	74:5 91:21	93:14	8:5,15,17
66:11,18	National 1:8	103:21	94:12	8:22 13:18
70:5 71:7	nation's	105:17	noticed	16:22
71:22	15:24	106:24	10:14	21:12
72:13,17	nature 15:6	107:4	notices	22:15 30:5
73:24	23:12	108:9,10	91:24 93:9	35:12 38:1
74:12	near 47:4	108:11	November	41:2 47:4
75:18	necessarily	113:7,9	79:16,23	47:13,14
77:23	31:5 33:12	114:19	number 7:3	47:15,24
78:19 79:7	103:25	117:25	9:11 12:6	48:1,2
79:11	109:4,17	131:18	12:13	62:12
84:24 86:8	125:6	145:1	64:25 65:1	68:10
88:7 91:24	127:5	148:13	70:23	80:15 83:4
93:2,9,13	128:3	152:14	108:14	83:10
93:25	132:9	new 46:1	numerous	85:15
94:24,25	133:22	58:5	37:12,15	86:10
95:8	138:22	Nick 61:3		87:10 90:6
105:11	140:1	nine 143:11	O	92:24 93:3
109:1,22	147:6	Ninth 55:7	O 8:1	93:10,14
114:18	155:5	Nombe 151:13	oath 1:1	96:17
119:13	necessary	153:15	112:13	118:6,9
121:17	143:24	normal 31:18	160:8	121:9
123:11	147:14	32:14	obtained	158:24
131:19,22	need 12:4	40:20	15:9 138:4	offices
143:3	14:14,15	normally	138:5	47:17
146:9,13	14:20 17:8	31:23,25	obviously	98:12
158:24	17:9 23:16	35:6 38:1	69:12	office's
MSHA's 92:15	33:11 59:7	38:6 40:5	129:2	92:11
120:4	76:8 79:15	40:18,21	occasion	official
122:25	79:19	41:1 45:2	94:21	97:8,9
124:3	81:18	45:10	occur 130:19	officially
multiple	119:16	66:17	occurred	13:1 145:1
27:7,8	142:1,4	69:20 87:6	13:15	officials
29:19	needed 23:24	91:7 93:1	122:14,21	13:9 98:4
34:13	30:13,15	98:7 105:4	occurrence	119:14
38:15	30:16	Norman 16:10	15:9 67:20	oftentimes
48:21	31:22	north 49:24	occurring	97:25
123:16	32:25	50:2	17:21	98:14 99:1
Mutombo	80:18 81:1	northern	occurs 17:10	oh 18:25
151:13,16	81:4,11	39:12	October	36:2 73:18
153:15	98:13	42:23	61:14	127:13
	134:25			

148:14	103:10,11	117:10	33:24 34:6	8:16,17
150:16	105:24	118:8	94:25	
157:14	107:13,25	123:20	122:15	P
okay 10:25	109:7	127:6	135:16	P 2:1,1 3:1
11:20	110:14	135:22	orders 14:12	3:1 4:1,1
17:11 18:1	111:16	139:3	37:13	8:1
18:4,8,17	113:15	ones 23:7,23	120:4	Page 7:1,2
18:19,25	117:2	28:1 29:23	ordinarily	16:10
19:11,22	118:7,10	30:6,8	45:8	paid 46:23
20:5 21:4	125:16	34:14 79:3	organiza...	46:24,25
21:9,16	127:2,24	92:6,12,25	18:2	47:23
22:4,10,23	128:2	98:8 105:5	original	panel 29:13
23:22	133:17	114:5	44:17	30:2 42:20
24:10,13	134:3	126:9	157:20	66:8 72:21
24:22 25:4	136:22	158:12	originally	72:22
25:22 27:5	137:10	ongoing 13:3	24:24 33:6	73:11 75:2
27:11,13	139:10	on-the-job	73:9	75:3 77:15
28:5,24	142:2,9,16	58:21 59:4	outby 73:4	77:16
29:3 30:1	143:7,11	61:23	75:5 77:5	78:22
30:10,15	144:7,9,14	open 85:16	77:15,20	142:13,18
30:17,21	144:18	109:8,21	79:16,20	142:21
30:25	145:3,11	134:18,22	79:21	143:4
31:10,18	145:14	135:5,7,8	85:16	145:5
32:18,21	146:5,8,20	135:13	121:14	148:1
33:2,18	146:25	146:11	122:18	panels 49:23
34:4,18	147:10,13	154:5	output 92:11	paper 37:18
35:5,13	147:13,19	opening 5:3	outright	parking
36:6 37:12	147:19,21	5:6 56:15	128:21	119:25
37:24 38:9	148:6,11	operations	outside 67:8	part 18:19
39:19,22	148:14,21	19:4 47:21	70:4	39:12 40:9
40:15,19	148:23,25	operator	outstanding	47:22
41:4 42:15	149:10,10	115:17	72:8	51:18,20
43:14,20	149:10,13	operators	overall	52:24
44:5,8,15	149:17	112:24	28:16,20	53:12
44:19,22	150:1,3,7	opinion	overcast	59:21
45:13,22	150:20,23	76:17,19	100:3	65:19 73:1
46:21 48:4	151:1,21	76:21	146:6	73:2 95:15
49:15 50:6	152:2,6	opinions	overcasts	115:8
55:8 56:15	153:4,6,15	128:17	100:6,15	143:20
58:3,19	153:19,23	opportunity	100:18	participate
64:11,16	156:19	16:1 160:2	101:1,24	26:11
64:20	158:2,20	oppose 126:3	102:4,8	27:21
65:13 68:9	158:24	127:17	116:15	44:24
74:7,18	160:5	opposed	117:1,2,9	particip...
76:5 81:19	once 32:16	71:12 76:7	117:19	32:5,22
81:23	33:10	84:9 95:23	135:5	142:25
82:15	49:23 73:3	128:25	override	particip...
87:19	75:2	opposite	22:11	12:22 17:2
95:18	107:13,14	75:1	oversee 31:9	particip...
96:17 99:5	107:24	order 12:3	O'Brien 3:9	13:9

particular	156:12,15	159:7	57:16	41:8 44:6
48:8 134:6	people's	personal	60:11,14	49:22
particul...	138:2	12:1 13:21	62:13	57:14 62:8
39:12	percent	13:23 14:2	63:24	63:13,14
parties 5:5	131:4	68:2,4,9	65:21 66:2	72:24 83:8
6:9 161:15	performance	personally	69:1 71:9	104:10,10
161:18	4:8 11:18	27:23 28:4	72:15,20	118:3
parts 20:5	18:21 20:2	36:9 38:6	73:1,14,15	127:4
pass 17:3	47:1,16	38:15	73:18,22	128:4
passage	64:24	44:25	73:23 74:8	131:11
143:12	66:19 71:9	92:23 93:4	74:13	134:15
passed 12:3	74:13	114:12	75:12	136:4,5
61:16	79:25	133:13	77:12,18	140:20
143:3	121:10	138:14	78:4,5,19	155:15
150:15	131:23	personnel	78:23	plant 18:24
151:8	151:3	48:9 62:24	79:12	play 41:25
Patrick 3:3	performed	Pete 158:17	82:21	140:19
8:24	41:23	phrased	83:13	plays 155:14
Paul 19:12	145:18	114:15	85:10,14	please 9:6
21:17	152:22	physically	85:25	9:10 15:15
35:11 41:2	period 54:9	47:25 48:1	86:11	15:17,18
pay 155:13	118:16	119:24	87:11 88:6	21:1 24:17
PC 44:14	134:19	picture	88:14	27:9 29:1
PE 85:7	135:21	62:17,19	90:21	35:22
pending	periodic	95:16	94:23	82:16
115:2	41:7	97:25	95:12,15	121:1,7
people 8:10	permissible	pillar 30:4	97:19	127:15,15
22:5 29:20	160:2	30:4 40:12	100:14	159:13
29:21 38:7	permission	144:21	102:15	PLLC 3:18
38:9 46:23	103:7,9	145:12	117:19	4:4
46:24,25	permit 82:17	pillars	121:23	plus 11:24
47:22	permits 19:3	145:4	122:18	12:2
48:17,22	82:10	place 46:8	126:17,24	point 16:5,5
60:9 61:12	permitted	46:12,12	126:25	18:15 43:7
61:24 62:6	13:23 14:1	51:4 98:6	131:18,19	47:20 61:4
63:11	14:11	117:21	132:3,16	61:12
67:24	permitting	123:5	135:15	69:14
68:10,13	21:14,19	132:24	136:13	72:17,22
69:22	40:25	133:23	140:1,17	73:23
82:12	person 15:13	135:3	143:18,21	74:15 75:4
86:17	29:18 31:8	137:8	144:5	104:12
87:10,15	45:18	140:2,3,5	155:3,12	107:25
99:20	48:19	placed 62:21	planned 45:1	111:3
102:20	61:17	places 133:8	planning	127:22
104:13,15	62:25	plan 19:19	52:23 96:2	134:6
104:21	94:17	26:8,9	147:25	150:20
112:23	102:22	32:23,24	plans 19:5	151:8
121:9	138:5,6	33:14 34:5	20:8,11,24	153:13
136:2	140:23	34:7,10,14	29:8 38:3	154:22
140:10	141:16	39:3,6	38:5 39:14	157:22

159:15	preparation	135:17	problems	115:6,8,9
pointing	26:9 45:1	previous	17:7 37:14	153:1
65:20	141:12	39:16 78:4	39:24	156:22,23
Pollyanna	prepare 19:5	78:5 97:19	45:19,24	157:2
2:3 8:4	20:8 88:9	120:15	48:8 67:18	programs
portion 42:6	90:5,21	previously	67:18	36:13
53:10	prepared	34:10	68:15	prohibited
72:15	28:13	66:16	71:10	1:26
152:24	31:24	102:18	123:18	projected
157:21	43:22	primarily	133:8	49:15
portions	49:13	23:18	149:11	projection
83:20	57:18 88:5	40:16	procedure	39:2
121:13	88:9,14	107:11	31:19	projections
position	90:7,9,11	primary 46:6	procedures	29:8 30:11
18:4 21:25	90:19,25	46:10	83:21,24	30:18
124:3	138:20,20	140:8	proceeding	43:11
129:2,3	141:13	print 82:18	13:25	98:16
positions	prepares	96:10 97:6	161:12	99:12,15
18:17	59:6	98:1,18	process 14:5	projects
possible	preparing	prints 98:13	33:22	100:17
23:15	117:7	prior 18:17	97:18	promise
74:23 77:3	present 8:10	19:8 35:18	104:24	14:19
78:7	13:21	37:19	123:24	pronounced
potential	president	42:24 43:4	136:17	37:4
14:9 17:1	29:22 31:7	43:4,12	Procious	property
46:5	62:21,24	44:23	9:12	22:20
potentially	63:1,2,11	73:14	production	proposal
140:14	63:16 87:5	118:14	20:24	99:21
PQ-type	98:23	149:1	26:12	proposed
38:19	99:10	152:18	82:23	117:9
practice	101:16	priority	114:9	126:17
93:13,15	102:1,19	116:5	133:4	137:9
93:16,20	103:1	probably	producti...	proposing
93:25 94:5	105:2	34:3 46:10	115:15	128:4
104:6	president's	75:11	profession	137:3
112:11	102:24	84:13 91:5	134:14	protected
136:11	103:23	95:10	professi...	16:15
Prater	pressure	107:8,18	20:13,15	protection
158:10	38:13,14	107:22	134:9	17:1 148:2
preceding	38:21 42:2	108:1	138:5	provide
92:17	42:2,3	114:7	Professor	14:21,22
preclude	73:6	157:14,14	88:19	16:2,7
13:6	pressures	problem	113:12	17:22 19:1
predictions	41:24	17:10	128:9	30:7 75:11
42:10	pretty 61:17	83:17,18	program	81:22,22
prejudiced	73:16 78:8	92:9 125:2	36:14,19	98:11
13:4	85:18	133:19,20	51:20 52:7	142:20
premature	prevent	135:4,6,7	52:24 53:2	145:15
13:5	17:20	135:8,13	59:3	159:12
prep 18:24	112:24	140:14	112:15	provided

16:8 82:1	136:3	90:20	quoted	real 48:15
159:14	137:10,22	104:19	127:16	reality
provides	137:23	112:25	quoting	96:21
12:25 17:1	138:10	113:16	127:15	really 13:19
providing	putting	115:1,15		27:19 31:2
46:3	34:22 35:1	115:16	<hr/> R <hr/>	52:9 53:22
proximity	35:3,6	124:10	R 2:1 3:1	76:1 92:14
112:22	116:15	125:17,18	4:1 8:1	96:11
public 1:7	121:20	125:18,24	radar 43:8	97:24
14:4,6	123:4	126:15	43:17	100:16
15:6	127:10	127:25	RAG 51:7	102:12
142:17	145:24,24	128:1	52:4,16	103:17,21
161:5	157:25	132:9	53:21 54:7	105:16
publicly	P-2 114:13	134:3	54:9 55:8	109:2
108:12	115:7,11	139:9	55:14,24	112:19
pull 73:5	P.E 126:24	150:23	57:24	131:11
110:11	127:1	153:6	58:16	136:6,9
127:8	136:3,6	158:8	Raghuveer	148:19
pulls 70:12	137:10,22	questioner	152:2	149:12,15
pump 82:9	P.E.s 35:11	15:17	raised 54:6	149:23
pumping	p.m 1:11	questioning	rarely	152:19
45:22	10:15,16	128:17	138:19,23	155:4,9
purchase	160:8	159:8	146:20	158:12
20:5	P.O 3:6,21	questions	rate 11:25	reason 17:20
purpose	P2 25:22	14:3 15:2	rating	32:14 33:8
14:15	114:7	15:25	129:24	62:14 66:5
57:25	145:11	41:13 59:1	raving	123:15
135:10,24		60:8 61:24	123:21	134:21
154:6	<hr/> Q <hr/>	62:7 81:11	Ray 35:11	reasons
157:9	quantify	87:4 89:14	60:24	17:17
pursuant 1:6	129:20,23	89:17	Rayhuveer	recall 27:2
11:24	130:23,24	91:23	37:3	32:14
put 29:16	131:9,16	113:11,20	Raymond	42:17
33:6,7	131:17	124:16	22:13	60:14
35:8 36:3	quantities	125:3,3	read 64:5	63:18 67:3
37:16	42:2	127:6	65:9 85:12	68:1 82:23
42:23 46:1	quantity	128:21	85:21 95:8	83:15
49:23	38:21	138:19,23	120:7	93:11
63:15	41:24	138:25	129:8	107:20
77:22	147:4	139:1	160:3	145:8
84:14	question	141:24	reading	146:10
98:16,17	15:17,19	150:10	82:24 84:9	receipt 7:5
101:6,13	16:2 32:16	158:5	154:10	receive 12:4
110:1	32:19	159:1,9	readings	12:10 25:7
117:5	37:17 47:7	quick 48:15	35:14	38:1
126:24	66:22	quicker	38:11,12	received
127:7	70:14 71:6	124:15	48:23	24:2,13
130:4	72:7,8,17	quickly	137:6	25:4,25
131:19,23	88:24 89:9	61:17	138:7	37:13
132:3	89:10 90:3	quite 43:16	154:25	receiving

recollec...	71:23	92:15	44:3	requirem...
64:12	refreshed	161:15	reported	108:13,14
65:17	72:10	relates	12:8	108:25
71:16,24	refresher	51:12	reporter 1:7	109:1,17
72:11	24:21	relating	15:14	109:18,22
recommen...	regard 69:24	93:9 94:1	73:17	112:7,17
40:9	72:11	relation...	reporting	113:4
reconsider	75:21	44:19	26:12,13	114:3,18
159:22	102:3	130:15	reports	115:7,21
record 8:12	104:9	145:16	15:11	146:9
9:7 15:15	109:7,15	relative	represent	requires
36:21 41:5	121:17	161:17	8:21	11:22
78:13 84:8	124:4	release 13:5	represen...	14:13
84:14 90:1	128:15	released	13:23 14:2	112:4,8
114:23,24	131:11	13:1	represen...	143:16
123:2	140:11,16	reluctant	44:1	146:15
132:7	140:25	12:12	represen...	requiring
147:1	156:2,8	remain 14:7	9:15	79:11
149:14	157:4,6	remember	represents	reserve
160:6	regarding	58:1 64:2	11:14	26:10
161:10	49:21	64:4 65:15	reproduc...	respect
recorded	140:17	66:5,9	1:25	89:13
161:12	Regional 2:5	67:5,6	request 14:7	response
recovering	3:13	71:20 79:2	14:9 15:12	65:3,6
130:18	regular	79:3 81:20	128:22	89:10
red 21:7,8	39:25	81:20 95:2	159:6	132:9
106:19	41:10 57:4	95:5	requested	responsi...
112:23	98:11	111:21	10:21	26:4,6
Reddy 36:25	regularly	113:19	requesting	56:24
37:4 152:3	39:23	122:10	12:6	102:14
152:4,6	regulation	140:21	require	responsi...
reduce 15:8	74:1,3	151:14	73:20 79:9	46:6 61:19
refer 18:20	143:3	156:3	92:7,10	61:22 94:2
80:17 81:4	regulations	remembering	94:15	94:6
81:11	7:6 16:24	71:19	109:6	118:12
reference	73:20 80:4	remembers	137:1	133:14
128:23,23	80:14 81:5	64:9	required	134:1,5
referencing	regulatory	remove 95:24	19:5 70:5	140:8
74:11 95:7	26:9	removed	74:9 94:19	157:7
referred	146:13	95:23 96:1	110:8,11	responsible
24:19	reimburs...	rep 110:20	110:13	20:1,23
143:5	12:2	Repeat 132:5	112:8,11	26:16 27:5
referring	reinforce	rephrase	135:2,22	27:13 31:5
73:3 92:5	125:10,16	15:17	143:4	138:7,8
114:6,8,12	relate	replaced	147:4,7,9	140:7
reflect 84:8	137:22	22:4	147:14	145:22
132:7	related	report 14:6	requirement	responsi...
refresh	31:13	15:6 19:11	13:6 109:4	59:23
64:12	37:18	26:15	135:12	restrict...
65:17	72:12	43:22 44:2	146:11,13	69:5

result 10:7 16:18 49:11 96:18 122:1	74:19,20 75:10 76:24 77:11,11 77:23	59:12 63:8 67:2 68:7 69:13 80:8 91:6 92:20 93:23	roughly 17:23 118:18	rush 23:19 R-E-D-D-Y 37:8
resulted 124:5	78:16 79:12	96:10,15 98:9 101:4	roundtrip 11:24	<hr/> S <hr/>
results 143:3	82:21 83:12	101:9 110:22	route 18:20 19:1,4,7 21:9 22:11 22:14 24:3	s 2:1 3:1 4:1 8:1 137:22
resume 56:19	84:23 90:7	111:10,23	24:8,12,16	safe 126:4,7
retraining 25:10	90:9 91:12 92:7 94:24	111:24,25 113:5,6,20	26:5 31:10 36:7,10	126:16,18 126:22,25 127:5,9,11
return 7:5 147:23	97:7 117:7 117:8	117:4 129:7	39:23 40:6 40:15	127:19,22 128:3,7
returns 148:2	119:10 121:11,13	132:19 135:11	46:15,21 47:1,2,18	129:12,15 129:19,20
reveal 14:12 14:13,14	121:22 122:11	138:10 141:23	47:19,21	129:22
reversal 105:12 106:1	123:5 126:24 132:3	145:10,13 148:14 150:14	48:3 51:12 56:14 63:9 66:20 71:8 77:7 88:16	130:3,20 131:1,3,11 131:15 141:11,15
reversals 106:6	141:14 155:12	rights 16:15	91:2 98:22	safely 112:12
reverse 74:22	revisions 82:12 90:5	rise 68:16	121:10,16	safer 15:25
reversing 74:9	90:22 98:6 102:21	risk 130:4 130:10,14	122:25 123:12	safety 1:9
review 20:8 28:3,11,12 28:15 31:24 32:1 41:8	116:14 120:15 126:17,25 127:1	131:19,23 132:4,24	126:5,23 136:2,12 150:13,21	2:12,18,23 3:10,12 8:8,15,18 8:22 12:19 13:18,19
reviewing 20:1	127:1 131:22 132:23	River 9:12 25:8	151:1 152:14,16	16:23
REVIEWS 65:12 72:1	136:18,25 140:17 155:5,17	road 1:9 9:12 131:8	rows 145:4	102:20
revised 77:12 97:18 104:10	RE-EXAMI... 5:17,21,23 6:3,5 49:9 142:7	Rob 11:16 Robert 4:3 63:21	rule 93:15 143:5 154:1,6,23 155:2,14 156:3	105:3,6 112:15 115:5,8,9 116:3,5,7 116:12 120:4,6 124:6 144:2 158:25
revising 100:13	150:8 153:24 158:6	role 140:19 151:1 155:15	rules 112:15 113:2,3,8 114:2,15 114:17 115:6,19	safety-r... 24:13
revision 63:24 65:1 65:22 66:2 66:6,19 68:14,16 70:6 71:7 71:8,14,18 72:12	rib 40:12 Ribs 67:20 right 18:10 18:15 22:5 27:12 41:14 44:8 50:6 52:10	roof 40:11 67:18,18 69:9 80:9 148:18 149:6	run 18:21 23:7,8,18 27:6 46:25 47:15 48:2 75:19 98:1 144:23 145:6 154:12	salary 19:13 19:14 Salyards 1:6 161:5 sampling 52:7 save 96:23
		room 1:10 11:13 Ross 29:25 140:19	running 83:2	

97:2,12	10:3 18:9	section	56:19	6:6 8:7
saved 117:8	27:17 28:6	13:17	65:21 74:3	17:13
saw 105:1	28:10,18	16:15,20	sentence	18:11,13
saying 32:20	32:8 38:22	33:10	85:12,20	22:22 27:1
45:3 66:23	39:7 47:6	98:13	120:9	27:20 28:8
72:2 76:8	59:17 64:6	109:10	separate	28:14,21
79:19 88:3	64:10,15	114:10	21:13	29:7 32:10
88:5,8,15	64:19 65:8	115:16	97:13	32:13
88:21	66:21 67:4	138:4	separately	33:17 37:9
93:11	75:20 76:4	146:16	117:8	38:24 39:1
96:25	76:11,15	154:8,9,11	September	39:10,18
97:14,17	76:20,25	154:19	1:11 8:5	41:6,12
99:22	80:20,24	156:4	10:15,16	70:13,16
101:3	81:17 84:7	sections	121:12	70:17,21
112:5	85:19	33:20 45:1	143:9	70:25 71:3
120:9,10	86:13,19	154:25	serious	80:10
125:5,9	86:25	security	59:22	141:25
130:3	87:21	12:6,13	serve 135:10	142:5,8
133:14	88:18,22	55:13	135:24	147:2
136:7,23	89:6,7,13	see 58:17	service	149:4,16
137:1	89:16,20	68:5 71:23	133:25	150:2,6
147:8,11	89:22 90:2	72:14 99:3	services	158:7,16
says 75:14	101:20	99:25	18:25 20:6	158:19
78:5,8	104:18	119:12	46:16,19	short 50:13
82:25 85:9	110:18,25	120:10	46:20	106:17
112:8	111:4,5,9	139:7	47:10 63:9	134:23,24
113:2	111:15	seen 104:22	145:15	135:17
137:5	113:10,17	156:20	set 30:12	138:12
138:3	114:20	self-exp...	99:24	151:10,22
143:20	115:13,23	81:1	100:5	shortest
scale 99:18	119:15	seminars	101:11,14	77:7
99:18	120:21	24:11	101:15,16	shortly
scenario	121:2	Senate	119:6	60:24
74:16 76:2	124:7,12	108:19	seven 107:10	151:7
scheduled	124:17,21	112:14	seventh 61:1	show 64:7,11
41:10	125:1,14	115:5	shaft 36:3	64:22
scheme 137:2	125:16,23	126:1	50:4	71:21
155:8	128:8,12	129:10	100:20	85:15 96:5
school 55:3	132:6,13	send 69:25	157:10	117:9
56:4	132:18	75:1,5	158:1,2	137:4
Science 55:5	142:3	77:19	shafts	143:22,24
scope 97:23	149:2,18	78:10	100:22,23	showed 72:25
Scott 9:8	149:21,25	sending	sharing 13:7	79:21
scratch 99:7	150:4	121:14	sheet 104:1	showing
screen 43:8	158:21	122:6,7	sheets	96:18
43:17	159:21,25	senior 57:4	102:18	shown 43:11
97:24	second 17:20	57:5 61:17	103:12,13	99:15
seam 33:1	88:23	sense 103:3	104:12,13	shows 117:3
Sears 3:17	114:23	117:14	Sherer 2:22	Shuman 3:18
9:20,21,24	119:6	sent 31:24	5:12,22	9:25

shut 34:15	situation	26:24 33:4	112:19	start 18:1
82:22	30:19 66:9	36:17 49:6	114:5,19	32:25 96:7
91:15	122:5,20	49:8 73:18	122:6	96:22 97:8
94:25 95:1	134:21,24	101:6	130:16	151:7
121:24	situations	102:6	140:21	started 16:9
122:4	135:12	107:3	142:15	47:16 48:7
154:11,18	six 52:19	116:2,4	147:11	51:10
156:4	53:25	152:7	153:11	55:18
shuttle 53:3	54:22	sort 18:25	155:24	60:12
sick 24:1	68:21	40:16 41:7	specifics	118:14
118:24	69:10	47:10 59:1	156:10	143:9
side 21:14	108:1	92:6 116:7	speculate	151:7
21:15,19	157:14	145:8	81:21	state 1:8
21:19,20	sixth 60:25	sorts 48:4	86:20 89:1	8:10,11
36:4 95:4	size 97:24	sounds	speculation	9:6,10
114:9	110:7,9	115:12	81:25	12:21 13:2
sign 82:7,19	111:22	Spad 95:24	spell 9:7	14:17
102:21	115:20	95:24	35:22 37:7	20:21 21:4
103:25	sizes 99:14	speak 15:16	spent 42:1	82:10
104:2,15	sizing	29:2 33:4	split 24:5	108:13
104:24	157:10	51:19 90:1	spoke 147:3	125:7
signature	Slicer 3:18	90:6,8	spokesman	161:1,6
104:16	small 127:10	126:9	111:11	stated
signed 11:5	Social 12:6	134:8	stability	108:12
64:24 65:5	12:13	speaking	30:6	statement
81:13 82:2	software	126:2	144:21	1:1 5:3,6
85:4 88:8	57:21	134:11	145:8,12	5:8 6:7
88:11	157:15	speaks 121:5	stamp 126:24	12:25
90:11,15	Solicitor	specialist	127:1	13:22
104:13	2:5 8:6	31:11	136:17	14:16 16:4
significant	solutions	specialists	137:1,11	108:16,22
42:16	85:15	13:12	137:12,17	108:23
signs 103:13	solved 83:17	specific	137:24	112:18
sign-off	somebody	23:4 31:8	138:21	120:11
102:18	15:20 59:8	58:24 67:7	stamped	121:12
104:1	81:13	79:3 81:18	136:20	123:8
simulation	82:17,18	93:6,11	stamping	125:8
43:23,25	94:16	114:15	136:6	128:13
44:5,8,13	101:4	specific...	137:25	129:10
44:15	102:16	16:25 24:8	stamps 136:3	131:9
49:13,16	112:3	29:19 31:3	137:22	159:18
156:14	137:18	34:9 58:23	standard	160:8
simulations	150:13	63:19 64:3	104:6	statements
157:22	somewhat	67:17	136:11	13:1 16:13
single 27:6	19:21 23:5	79:13	standards	129:2
sinking 50:4	23:11,21	82:24 92:5	25:23	States 8:9
sir 90:20	65:16,17	92:13,14	112:2	108:19
129:17	66:10	92:18	145:12	112:14
130:24	108:16	105:14	star 129:25	115:5
site 48:5	sorry 22:18	107:15	130:1	statics

51:23	52:9,14	88:14	146:19	27:25 35:3
59:10	53:9,22	94:23	154:12,18	surveys
stating	59:17	95:14	sure 24:2	35:17
79:13	students	121:11	28:9 29:24	53:17
89:24	51:21	126:23,23	40:20	sweeping
stationed	studies	132:23	44:10	130:18
118:5	26:10 53:5	submitting	50:10,12	sworn 9:2
statute	study 52:8	66:5 85:10	62:2 63:16	129:10
11:20,24	53:17	subpoena 7:4	70:16 76:5	161:8
statutory	142:13,18	10:7,11,14	79:24	symbols
16:14	142:21	11:21	95:13 96:4	97:20
stayed 53:25	143:4	subpoenaed	96:11	system 28:17
steps 117:6	stuff 41:1,1	11:23	111:17	28:20
Stewart 3:14	48:24	subpoenas	124:22	40:23
stick 148:1	51:23 53:4	10:14	125:4	69:18
stop 103:18	102:21	subsidiar...	136:13	97:11
stopped	114:11	140:25	137:15	112:22
150:20	118:14	substantial	138:10,11	116:16
stopping	138:13	63:17	143:19	123:23
34:16 45:5	152:18	substitute	150:5	124:1,4
45:6,7,7	subject	55:19	surface 22:7	126:13,21
62:18,19	149:6	sufficient	surprise	136:9
95:23,24	submission	154:7	148:15,19	143:14
97:20	66:19	suggest	148:25	144:20
121:20,25	86:18	132:14	149:7,8	145:16
138:15	88:17	suggested	surrounding	systems
stoppings	91:19	128:14	13:14	30:22
40:8,8	submit 19:5	suggesting	survey 35:25	system-type
96:1	70:5 72:24	103:5	36:20	45:20
117:19	75:10 79:4	132:17	41:18,23	S-1 115:9,11
street 2:13	79:7,11	Suite 3:20	42:6,8,12	116:2,6,11
2:19 3:14	131:18	4:6	42:17	S-2 116:2
3:19 4:5	132:1,16	superint...	43:21	
131:2	submittal	31:7,23	48:17,19	T
strenuous	74:9	35:1 45:10	49:12,16	table 8:10
119:21	118:20,21	62:23	53:6,7,10	tailgate
123:11	121:19	98:23	53:15	34:18 95:4
strenuously	submitted	100:9	145:18	122:7,22
119:13,17	31:25 38:4	101:15	146:2	133:4,8
119:19	63:20	102:1,19	152:21	134:4
120:4,18	68:15 71:7	103:24	153:3,8,16	148:9,17
120:19,25	71:22	105:1,4,9	156:7	149:5,11
121:1	72:13	115:16	157:20	take 19:2
123:7	74:13,19	116:18	surveying	24:23
strike 133:2	77:10,18	138:6	19:2 27:21	38:10 40:9
structure	78:19	superiors	surveyor	50:8,25
21:9	84:23	29:24	20:15,19	51:17,21
student	85:14 86:1	supplies	138:8	51:24
38:23 49:3	86:3,5,11	20:5	surveyors	56:17 62:1
51:5 52:5	86:12 88:6	supposed	19:18,20	65:7,9,11

99:18	teach 55:2,4	128:19	148:8	44:12,15
103:24	59:3,11	Terry 2:16	149:10	45:15
106:13,16	teacher	8:14	158:20	51:16 59:6
109:25	54:19	test 56:17	159:1	73:16 79:7
112:2	55:17,18	106:21,22	160:5	79:16,17
119:10	55:19	testified	Thanks 17:14	84:9 88:19
135:1	teaches 59:6	9:3 67:24	153:19	88:25 89:2
138:2,16	teaching	91:23	thermody...	89:8,23,24
142:1,4	55:9,9	113:13	51:22	95:4,6
151:6	team 8:25	testify 76:6	they'd 99:19	96:11
154:25	12:20,21	81:18	100:7	103:19,20
155:2,10	13:7,9	testifying	136:17	105:3,4,12
taken 1:6	14:17 16:7	84:10	138:24	106:23
16:17	16:10,11	110:20	thing 19:3	107:9
21:25	48:23	testimony	22:21	113:13,18
50:13	159:13	15:13	23:25 24:1	119:18
106:17,22	teams 48:22	17:16	24:12 36:5	122:12
117:21	technical	67:22	42:4 51:15	123:22,25
161:16	107:4	88:19	52:7 82:10	125:19
takes 18:20	142:13,17	89:24	89:18 92:6	126:15,22
154:9	142:20	108:18	103:22	127:25
take-up	143:4	112:13	111:18	128:16,20
138:9	technically	113:18	112:10,10	129:3
talk 118:2	46:15	115:4	112:22	132:5,8
127:16	technician	124:8	114:10	133:21
141:14	35:8 96:8	125:8	137:8,9	134:12,13
talked 48:15	technicians	126:1	139:25	134:17
60:13	19:18,20	128:15	148:22	136:18
68:15	21:20,21	159:6	157:11	142:16
106:10	146:3	161:7,10	things 19:9	143:9
139:18,21	telephone	Texas 151:17	22:16 26:8	147:7
139:23	9:11	text 44:4	41:24 42:5	148:17
154:1	tell 31:18	thadisina	44:14	151:17
talking 37:2	34:6 80:2	37:3 152:2	45:21 49:8	153:13
62:11,11	81:20,23	thank 15:22	55:24 58:2	154:16,17
68:9 75:14	133:7	18:25	58:19 79:7	154:18
78:12	temporarily	19:11	82:9 97:3	157:23
99:20	79:14	20:23 24:2	109:3	Thomas 4:4
108:19	temporary	25:22	110:3	11:17
112:18	74:4	26:22	113:9	Thompson
115:11	Ten 61:10	27:21	114:9,16	151:23,24
122:4,11	tenth 55:7	31:18	119:1	thought
122:20	term 49:19	35:16	120:13	100:1
146:8,10	123:20	37:12	136:12	123:4
152:5	131:10	39:22 71:4	138:8	141:11
talks 78:4	termed 47:19	133:2	141:12	thoughts
taxable 12:8	terms 68:9	144:20	146:10	128:20
taxes 22:15	102:13,15	145:22	155:8	thousand
22:20,20	117:18	147:3,15	think 22:12	95:17
22:21	territory	147:17,21	24:24 25:1	three 7:6

21:18,19	76:22	152:21	67:11	140:10,16
22:23,25	83:18,22	156:3	122:17	140:21,22
23:14	91:7,9	toll 12:2	tried 78:8	141:9,12
48:22 57:5	94:24	top 80:8	79:22 89:2	146:2
57:6 63:6	95:10	111:25	120:16	two-and-...
63:8,10	96:22	113:19	true 74:17	57:8,9
70:1,22	100:16	145:10	133:12	61:22
82:11,16	106:21,22	traffic	155:15	type 17:2,21
84:17,19	106:25	131:7	161:10	19:3 22:15
84:20 88:1	121:24	train 112:3	trust 137:12	22:21
88:15	126:11,19	trained	truthful...	23:25 24:1
90:18	127:16	58:22	59:23	24:11 36:5
101:17	130:12	114:19	try 77:19	41:22 42:4
105:12	134:6	144:25	112:12	44:14
106:2	135:21	145:2	trying 59:19	51:14 52:7
107:14,24	139:3,5	training	59:20 60:6	53:3 82:10
119:9	151:10,22	2:12,18	75:1 82:14	103:22
157:19	157:25	3:12 8:15	132:14	114:10
thrown 62:3	159:11	8:18,22	133:23	137:8
thumbs 79:5	times 32:24	13:19	155:18	typical 19:7
87:6,6	35:7 38:15	16:23	turn 79:19	typically
Thursday	82:19	20:17,19	twice 107:18	86:17
1:10	90:18	24:3,4,14	107:19	
Tim 60:16	99:11	24:18,19	110:2	U
61:15	100:22	24:20,22	139:2	UBB 23:20
time 11:13	107:16	25:4,8,25	147:4,7,9	27:14 32:9
13:24	108:1,2,6	58:21	147:12	32:11
19:12	109:25	113:7,9	two 7:5 11:4	37:13 39:5
21:18	118:13	114:1,13	11:9 12:4	40:12,18
23:15,23	Tirey 60:16	114:14	17:17	40:23
23:24,25	61:15	158:25	21:13,20	41:18 43:2
25:13 27:2	title 53:21	transcribed	22:5 23:2	43:8 44:1
29:5 33:20	56:21	161:9	24:5 35:11	45:19,24
34:2,3	58:16,18	transcript	42:1 45:11	48:9 62:11
36:3 39:13	151:2	1:25	45:12	66:13 83:8
40:21	152:11	translate	48:22	93:17,18
42:15,20	today 8:4	124:16	50:23,25	93:22 94:7
42:21,24	9:16 10:6	translating	57:7 61:5	94:9,20
42:25	15:23 16:6	124:18	70:3,10	100:25
44:12	59:25	travel 66:7	71:1 87:11	101:8
49:22 51:1	112:14	66:16 67:8	87:16	103:20
51:2,9	115:5	67:10,11	98:22	104:10
52:8 53:3	140:18	69:20,22	113:20	105:6
53:5 54:7	159:1,11	69:23 70:7	117:1,2	106:7
54:9 56:13	told 56:15	71:11 77:5	118:16	108:2,6,7
57:10 58:6	79:20	85:16	126:4,9	108:9,11
60:17 65:9	91:15	144:15	127:8	108:19
65:11	117:22	traveled	129:14	110:4
71:13,25	133:10,21	77:7,16	130:15	118:8,12
72:12 75:9	133:21,23	traveling	136:2	118:15,20

119:3,14	157:21	35:4	41:19	78:19
122:4	understand	Upper 12:22	U.S 2:4 8:6	79:12
140:5,8,17	14:24	13:15		82:21 83:7
143:8	15:16 43:1	17:16	V	83:13
145:5	59:14,20	20:11 23:9	VA 2:8,25	85:10,14
151:3,5	62:5 66:22	23:12 27:3	vacation	85:25
153:3	67:21	29:10,13	91:7	86:11 88:6
156:8,13	76:10	30:11,22	118:23	90:5,7,9
157:4,5,20	89:11	30:25	142:4	90:21
uh-huh 21:24	96:25	31:13,19	various 47:3	91:12,18
26:7 27:16	97:17	34:20	47:9	91:19
41:20 43:6	103:5	35:17 39:3	vehicle 12:2	92:16
45:17 60:1	120:9	39:11,22	vent 53:6,7	93:10
60:3,10	121:5	41:9 44:23	53:10	94:23
62:10,15	125:2,14	64:25	82:12	95:11,12
64:1 68:12	125:17,17	92:16	153:3	95:15
70:20	140:7	106:2	ventilate	96:14,18
85:11	156:9	120:3	80:1	97:18,19
108:21	understa...	139:11	136:14	98:19,20
136:15	12:7 81:10	145:16	ventilation	100:14
139:6	113:23	up-kept	30:22,25	102:14,15
146:1,12	132:10	148:20	31:3,5,9	102:21
154:3	understands	up-to-date	31:10,14	103:14
Uh-uh 25:17	124:22	96:21	32:15 33:5	104:9,10
57:15	125:5	97:10	34:5,20	105:8
ultimate	understood	117:12	35:10,16	108:25
31:14	42:12	use 14:20	36:7,20	109:1,7,15
62:20,21	unfair	30:8 36:7	37:13,18	109:18
62:25	128:19	72:18,23	38:3 40:4	112:7
96:18	United 8:9	73:12	40:8 41:17	116:14
148:3	108:19	78:21	43:21	117:7,8,19
unavailable	112:14	127:13	44:22 45:8	118:3
118:23	115:4	128:1	48:16	119:3,10
underground	university	131:10	49:12	119:14
21:14,19	3:5 48:18	143:16	51:14	121:17
22:8,9,24	49:2 50:20	144:11,25	53:15,17	122:13
25:18,20	145:14	145:2,3	53:18	123:5,23
27:2 35:14	Unoffici...	146:5	57:16	124:1,4
36:1 38:4	19:16	149:9	60:11,13	126:2,13
38:9 40:25	unsafe 127:5	157:2	62:8,13	126:17
42:1,6,8	127:12,13	uses 129:1	63:12,14	129:12,14
45:6 48:19	127:23	usually	63:24 65:1	130:22
48:24 52:8	128:1,4,5	35:15	65:21 66:2	131:11,18
53:10,18	130:16	40:10	68:14 69:1	132:3,23
107:17	144:15	48:22	69:18,24	133:7
108:1,7,9	untravel...	utilized	72:20	134:15,19
108:10,11	69:19	83:23	73:14,22	135:15
134:20	un-trave...	U.K 35:18	73:23	136:1,3,5
152:23	149:5	36:12,18	75:12	136:9,13
153:12	updating	36:24	77:12	136:19,25

137:2,23	vigorously	17:15 29:1	113:23	38:14
140:1,16	121:9,10	41:17	118:25	52:15
140:25	123:7	50:16 71:6	122:16	55:21 56:4
141:7,16	violation	76:2 81:13	126:15	68:13 83:3
143:18,21	37:22	84:20	129:8	104:23
144:5	91:24 93:2	89:21	132:8	105:12
145:16,18	93:9,14	106:19	139:12,13	106:1
152:21	94:1,12	wall 98:12	141:9,17	107:13
153:8	95:8 122:3	want 12:13	147:11	151:17
155:3,5,12	violations	17:20	water 41:1	153:11
155:15,22	37:13,15	65:11 69:6	45:18,20	weren't
156:7	37:21 92:2	72:23	45:24 46:1	47:24,25
ventilat...	92:15,19	74:25	46:2,7,8	48:1 60:17
31:19 32:6	93:25	78:25 80:3	46:11,11	67:14 94:9
32:21	Virginia 1:8	90:16 98:5	51:15 52:6	132:14
39:24	1:10 2:11	98:15	67:8,11	West 1:8,10
verbal 104:4	2:17 3:4,5	99:11	68:19,20	2:7,11,17
verifica...	3:11,19	101:6	68:22,25	3:4,5,11
116:17	8:11,14,21	111:8	68:25 69:7	8:11,14,21
117:20	9:12 12:21	125:4,10	69:17,17	9:12 12:21
verified	13:2,18	129:7	144:15	13:2,18
117:10,13	16:24,25	134:2,6,15	148:18	16:24,25
117:14,16	17:4 20:21	147:5	way 12:3,3	17:4 20:21
117:18,21	50:20	159:22	13:5 30:12	50:20
121:6	161:1,6	wanted 32:25	37:16	161:1,6
verify 74:15	VnetPC	33:7 70:8	49:12 75:6	we'll 38:7
116:20,20	156:11,24	72:18,24	78:25	95:24 99:4
116:21	volition	74:2,21	79:15	100:5,8
verifying	74:14	75:18	89:11	119:11
138:15		120:14,17	97:21	124:15
version	W	121:23	109:18	we're 17:15
34:23	Wala 35:19	122:18	117:14	17:17,20
versus	35:21	140:11	123:17	21:12 45:4
100:15,18	36:13	150:5	129:23	59:22 60:6
100:22	41:19	wanting	130:23,24	75:13
101:23,24	44:20	85:20	131:3,8,15	81:24,24
102:4,8	48:16	103:20	137:12	95:22
viability	49:13	124:22	144:4	110:19
78:16	145:14	wants 81:21	154:20	117:14
viable 76:22	152:22	Washington	Waynesburg	128:4
vice-pre...	153:1,7,13	2:13,19	51:8	137:1,2
62:24	156:25	wasn't 30:13	ways 88:24	158:22
102:19	157:19	30:14 31:5	131:3,16	we've 59:24
105:3	Walker 1:3	31:8 48:20	week 22:6	67:22
victims	3:23 5:10	49:25 52:9	weeks 105:12	100:22
17:19	9:2,8 10:2	73:24 86:5	106:2	121:6
vigorous	10:6 11:1	86:12 91:8	Welch 3:13	140:18
121:15	11:6,8,9	93:25	3:15	154:1
122:24	11:20	103:5	went 22:2	white 107:1
123:11	16:22	111:3	36:12	Whitesville

25:9	56:11,12	working 18:1	79:11,18	65:19
Wilson 2:6	56:13	36:23	79:23	66:10,23
2:24	60:11	48:18 49:2	written	67:23 80:6
withdraw	61:23 64:4	55:18 61:5	37:23 44:3	83:1 92:21
115:1	71:18	61:13	154:14	92:25
witness 5:10	74:20	71:20	wrong 92:8	96:11
11:23,23	76:24	106:25	139:8	97:17 98:7
12:7,25	77:12 78:9	108:7	wrote 34:14	99:18
13:1 15:10	78:10,18	119:11	63:20	103:11
65:12 72:1	79:8,22	133:8	81:15	104:4,8
129:8,13	84:23	134:15	WV 2:14,20	105:9
161:7,10	87:12,16	150:21	3:7,15,22	106:16
161:11	91:2,8,11	156:13	4:7	110:5
witnesses	91:25 92:4	works 22:14	WVU 21:3	111:10
11:21	99:2,3,4	35:4 47:11	51:16,20	116:22
16:13	99:20,21	137:12	51:25	119:18
159:8	99:22	140:24	53:18	135:2
wondering	100:2,5,8	141:7	W-A-L-A	139:17
64:9	118:19	150:13	35:23	140:4
word 31:15	119:2	152:8	W-A-L-K-E-R	144:1
31:16 82:3	120:16	153:4	9:8	146:1
102:10	137:3,25	worth 95:17	W-9 12:5	150:17,19
119:21	140:10	100:23,24		152:3
121:3	150:15	wouldn't	X	153:9,9
127:13	153:7	23:23	x 5:1 6:1	156:6
138:16	158:11	39:17 45:6		157:12,25
149:8	159:3	70:2 74:20	Y	year 58:20
155:14	worked 18:14	75:3,19	yeah 19:21	83:8 92:2
worded	34:4,20	78:18,18	23:11,21	92:16
143:23	36:12,13	93:18	25:3 28:22	106:7
words 78:17	46:14,16	96:23	30:24	107:16,19
95:17	51:1 52:15	100:2	38:13	118:16
101:6	52:20	103:6,7,25	40:10,14	139:3
127:19	54:17,17	131:13	43:3,4,16	157:18,23
129:1	54:18,19	132:1	43:19,25	years 17:24
138:2	55:13,15	133:13,22	44:17,21	18:16 43:2
work 18:19	58:10 60:9	135:6	44:21	43:4,15,16
19:19	68:10 85:1	138:22	45:20	51:1 55:23
23:12 24:6	94:20	140:1	51:20 52:3	57:8,9
28:3 31:20	107:4	148:19	52:11,11	61:10,23
36:1 38:19	112:21	149:7	52:17 53:6	91:2,13
39:2 40:16	118:13	would've	54:1 55:10	118:16
40:23	123:17	140:4	55:20 57:6	157:19
41:21	126:10	148:3,4,4	57:10,20	year-and...
48:15 51:4	141:16	152:25	57:22 58:6	106:23
51:6,12	151:13	write 81:12	58:13	118:17
52:8 53:6	152:7,14	81:13 84:2	60:18,20	yesterday
53:7 54:16	152:16	writes 97:19	61:18,20	10:20
55:14,16	workers	writing 74:6	63:14	
55:21	19:15,17	77:23	65:16,19	Z

\$	150 5:24	64:24 65:4	24801-2311	4
\$40 12:7	153 5:24 6:4	65:6,25	3:15	4 20:10
\$40-a-day	158 6:4,6,8	66:3 71:8	25164 9:12	63:21 83:4
11:23	159 6:8,9	71:15,23	25301 3:20	41 5:12,14
0	16 5:7,9	75:5 78:16	4:7	48 5:14,16
08 61:16	16-foot	79:12	25311 2:14	9:12
09 143:10	100:22	83:19 84:3	2:20	49 5:16,18
1	160 6:9	88:7,17	25339 3:22	5
1:00 10:15	161 6:10	91:19	26506-6130	5th 13:16
10th 10:15	1615 2:13,19	107:25	3:7	17:15 18:4
100,000	17 5:9,12	121:18	29 17:18	50:2
110:1	18 54:22	122:21	3	50 5:18,20
103(a) 13:17	55:11,15	126:6	3 18:20 19:1	99:18
105(c) 16:15	144:16	140:18	19:4,7	131:4
16:20	18th 65:4	141:10	21:9 22:11	50-page 96:3
1099 12:9	66:3 71:15	157:23,24	22:15 24:3	500 4:5
11 7:4,5	2	2010 1:11	24:8,12,16	542-1098
11th 126:7	20 61:10	8:5 13:16	26:5 31:10	9:13
1100 2:6,24	20,000 109:8	18:10,12	36:7,10	6
12 5:5,7	109:9,21	94:24	39:23 40:6	60 99:18
120 112:15	146:10,15	105:13	40:15	6130 3:6
113:2,3,8	154:1,5,10	106:3,7	46:15,21	7
114:2,17	154:12,19	107:25	47:1,2,18	7:09 160:8
114:19	155:2,14	118:21	47:20,21	74th 148:17
115:6	156:3	123:1	48:3 51:12	75372 34:20
1301 1:9	200 3:20	124:4	56:14 63:9	78 146:6
14th 63:24	2001 54:24	126:2,7	66:20 71:8	8
64:23 65:6	2003 47:16	140:19	88:16 91:2	8 5:4
65:25	48:6 55:12	141:10	98:22	80-hour 25:4
68:14 71:8	139:10,12	215 80:6,8	102:9	800 4:6
72:12 74:9	2004 47:16	22 117:1	121:10,16	84 7:6
74:19	48:6	133:4,4,8	122:25	891 3:14
76:24	139:11,12	134:4,4	123:12	9
77:11,22	139:22	146:20	126:5,23	9 1:11 5:5
78:16	2006 18:3	22A-1-22	136:2,12	9th 8:5
79:12 80:4	42:13 43:3	16:25	150:13,21	10:16
81:12	55:21	22nd 2:7	151:2	94:24
82:21	61:14	22209-2247	152:14,16	118:21
91:19	142:11	2:8	3:30 10:16	121:21
118:20	2006/2007	22209-3939	3:40 1:11	122:4,12
121:12,18	35:25	2:25	30 17:9	122:14
14-foot	2007 42:13	22557 95:24	85:13 86:1	123:1
100:22	57:11	22662 95:25	30th 143:2	124:1,4
141 5:20	2008 57:11	23rd 71:23	304 9:13	126:6
1411 3:19	61:15,16	78:3 83:4	334 80:6,9	9,000 146:14
142 5:22	2009 63:18	83:12,19	364 80:6	
149 5:22	63:25	84:2,24	38 148:16	
15 11:25		88:6,17	384 80:6	
		91:5,8,10	3953 3:21	
		91:12		