

ALLEGHENY COUNTY HEALTH DEPARTMENT

* * * * *

UNITED STATES STEEL	:	
CORPORATION, a Delaware	:	
corporation,	:	
	:	
Appellant,	:	
	:	Appeal of
versus	:	Enforcement Order #180601
	:	
ALLEGHENY COUNTY HEALTH	:	
DEPARTMENT, Air Quality	:	
Program,	:	
	:	
Appellee.	:	

* * * * *

Verbatim record of hearing held at
 At Clack Health Center,
 Building 7, 301 39th Street,
 Pittsburgh, Pennsylvania, on
 December 5, 2018
 at 9:00 a.m.

BEFORE: MAX SLATER, ESQUIRE, Hearing Officer

ADELMAN REPORTERS
 302 Torrey Pine Drive
 Mars, Pennsylvania 16046
 Phone 724-625-9101; Fax 724-625-9133

1 APPEARANCES:

2 JASON K. WILLIS, JR., ESQUIRE - Assistant Solicitor
3 Allegheny County Health Department
4 Building 7, 301 39th Street
5 Pittsburgh, PA 15201

6 For - Allegheny County Health Department

7 MARK K. DAUSCH, ESQUIRE
8 MICHAEL H. WINEK, ESQUIRE
9 Babst Calland
10 Two Gateway Center
11 603 Stanwix Street, 6th Floor
12 Pittsburgh, PA 15222

13 For - U.S. Steel Corporation

14 DAVID W. HACKER, ESQUIRE
15 U.S. Steel Corporation
16 600 Grant Street, Suite 1500
17 Pittsburgh, PA 15219

18 For - U.S. Steel Corporation

19 Also Present: Michael Parker, Esquire
20
21
22
23
24
25

INDEX TO WITNESSES

<u>Witness:</u>	<u>Page</u>
Angela Crowley	
Direct examination by Mr. Willis	561
Cross-examination by Mr. Dausch	618
Redirect examination by Mr. Willis	659
Recross-examination by Mr. Dausch	666
Redirect examination by Mr. Willis	667
Recross-examination by Mr. Dausch	668
Redirect examination (cont'd) by Mr. Willis	670
Brian Harrington	
Direct examination by Mr. Willis	671
Cross-examination by Mr. Dausch	697
Redirect examination by Mr. Willis	701
Walter Greenewald	
Direct examination by Mr. Willis	703
Cross-examination by Mr. Dausch	716
Edward Cherpko	
Direct examination by Mr. Dausch	719
Melissa Hallas	
Direct examination by Mr. Dausch	723
Cross-examination by Mr. Willis	726
Mark Dvorsky	
Direct examination by Mr. Dausch	728
Cross-examination by Mr. Willis	739
Gary Downard	
Direct examination by Mr. Dausch	741
Cross-examination by Mr. Willis	791

INDEX TO EXHIBITS

<u>Exhibits:</u>	<u>Offered</u>	<u>Admitted</u>
<u>ACHD Exhibits:</u>		
Exhibit 25 - Collective exhibit	558	617
Exhibit 26 - E-mail & attachment	688	694
Exhibit 27 - E-mail	694	697

(Exhibits were not provided to court reporter)

PROCEEDINGS OF DECEMBER 5, 2018

HEARING OFFICER SLATER: Let's go on the record. It is Wednesday, December 5th, 2018. This is day three of the hearing, United States Steel Corporation versus Allegheny County Health Department.

Just for the record, could counsel please identify themselves?

MR. WILLIS: Jason Willis for Allegheny County Health Department.

MR. DAUSCH: Mark Dausch for U.S. Steel.

HEARING OFFICER SLATER: Will any witness who is testifying today, please raise their right hand to be sworn in.

(All potential witnesses were duly sworn by the court reporter.)

HEARING OFFICER SLATER: Mr. Willis, you may call your first witness.

MR. WILLIS: I would call Angela Crowley, please.

ANGELA CROWLEY, called as a witness, being

previously sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WILLIS:

Q. Ms. Crowley, can you state your full name for the record, please?

A. Angela Crowley.

A. It was a two-year associate, and then there was a practicum attached to that two-year associate, which I went to CHMR and got --

Q. I'm sorry, what is CHMR?

A. I don't remember what it actually stands for, but it was out of Hammarville and it was the old Gulf research facility that they started doing onsite training for a practicum for an environmental technician position, and that entailed HAZWOPER, tank inspections, a lot of stack inspections, onsite inspections, wastewater treatment, water treatment, groundwater.

There were all different kind of parameters.

Q. And what is HAZWOPER?

A. I don't remember what it stands for.

Q. Is it an acronym?

A. It's an acronym, correct.

Q. Okay. Once you got out of CCAC, what did you do from there? Did you continue with your education?

A. I did not. I got employment with a company that did a lot of environmental work.

Q. What company would that have been?

A. U.S. Filter.

Q. What kind of environmental work were you doing?

A. When I had started with them, I was just doing site-specific work, doing observations.

Q. Can you spell your last name?

A. C-R-O-W-L-E-Y.

Q. Thank you. Ms. Crowley, are you a resident of Allegheny County?

A. No.

Q. Where do you live?

A. Washington County.

Q. Okay. Did you go to high school in Pennsylvania?

A. Yes.

Q. Where did you go to high school?

A. South Hills High School.

Q. Did you have any formal education after high school?

A. Yes.

Q. Where did you go?

A. Community College.

Q. Of?

A. Allegheny County.

Q. CCAC?

A. Yes.

Q. Did you finish with an associate's degree there?

A. Yes.

Q. In what?

A. Environmental technician.

Q. What did that entail?

And then I did a lot of groundwater sampling. I did a lot of water sampling.

And then eventually, I got certified and did a lot of VE readings.

Q. By VE, you mean?

A. Visible emissions observations.

Q. Thank you. And how long did you work there?

A. With that company?

Q. Yes.

A. I worked for them for 10 years, but they had changed names over the years.

Q. What was the name when you finally left?

A. I believe Veolia.

Q. Okay. And you said you worked for them for 10 years. When did you leave?

A. 1998.

Q. And where did you go from there?

A. The Allegheny County Health Department.

Q. Now, what was your position there when you started with the Health Department?

A. My position with the Health Department?

Q. Yes, ma'am.

A. Coke oven processing technician.

Q. Is that your current position now?

A. Correct.

1 Q. And so you have been a coke oven processing
2 technician since 1998 with the county?
3 A. 2008 with the county.
4 Q. 2008 with the county?
5 A. Yes. Let me — I started with Veolia/US Filter
6 in '98 and left in 2008. Sorry about that.
7 Q. Okay. All right. Are you familiar with the
8 certification method for Method 303?
9 A. Yes.
10 Q. Are you Method 303 certified?
11 A. Yes.
12 Q. Could you tell me what that means to be certified
13 in Method 303?
14 A. You go through a training through Crowder
15 Environmental. And then after you go through the
16 training, you get certified by three panel members, EPA
17 303 panel members.
18 Q. Okay.
19 A. And you inspect coke oven batteries.
20 Q. And are these panel members individuals with
21 certain expertise in Method 303?
22 A. Yes.
23 Q. Have you ever been a panel member?
24 A. I am a panel member.
25 Q. You're currently a panel member?

1 A. Correct.
2 Q. And does that mean that you have certified other
3 inspectors for Method 303?
4 A. Yes.
5 Q. Have you done that?
6 A. Yes.
7 Q. Okay. It's my understanding that you currently
8 do visible emission inspections at Clairton Coke Works;
9 is that correct?
10 A. Correct.
11 Q. Have you done visible emission inspections for
12 any other facility?
13 A. Yes.
14 Q. Which ones?
15 A. Piper Thompson (phonetic), Irvin. I can't
16 remember any more other than Clairton.
17 Q. You can't remember anything beyond U.S. Steel
18 facilities?
19 A. Correct.
20 Q. Okay. Did you ever do any vision emission
21 inspections at Shenango?
22 A. Yes, yes, yes.
23 Q. Okay. Could you walk me through a typical day
24 for you in terms of your position with the county? How
25 does your day go?

1 A. I start off, wake up, gather my personal and
2 protective equipment. I gather documents. I load my
3 vehicle up. I drive to the facility. I swipe into
4 their general office building.
5 I put my first layer of protective gear on, my
6 second layer of protective gear on. I don't put a
7 respirator and hat on until I actually go into the coke
8 plant facility.
9 I talk to an escort. I review a couple documents
10 to see where I'm going to go for today, maybe get some
11 pertinent information about if there's an outage or
12 anything going on that I need to know about so I don't
13 have to go through that area.
14 Once I talk to them, we drive in. I sign into
15 a — they sign into an office building. We go up to the
16 facility and I start my inspections.
17 I can start — I can start with pushing, soaking,
18 topside, doors, any one of those depending on where they
19 are in the operations.
20 After I complete an inspection, we sign out. I
21 meet them back up at the GOD. I make copies. I give
22 them the copies of everything and ask if there is
23 anything they need to know, that they could see
24 everything, if they agree to it, any questions.
25 And I tidy up my day by getting cleaned up and

1 having a lunch.
2 Q. Okay, I'm going to back up a little bit. You
3 went through a lot in a very short discussion there.
4 What time do you get in?
5 A. About seven o'clock.
6 Q. So you are on site at seven a.m.?
7 A. Correct.
8 Q. Do you ever work overnight?
9 A. No.
10 Q. Just during the day?
11 A. Correct.
12 Q. When do you get off of work, what time?
13 A. About three o'clock.
14 Q. Is that every day?
15 A. Yes.
16 Q. Five days a week?
17 A. Yes.
18 Q. And what you've just described, is that something
19 that you do every day?
20 A. Yes.
21 Q. Do you do that week to week?
22 A. Yes.
23 Q. Month to month?
24 A. Yes.
25 Q. Quarter to quarter?

1 A. Yes.

2 Q. You mentioned that you have to wear personal
3 protective equipment?

4 A. Correct.

5 Q. Is that otherwise known as "PPE"?

6 A. Correct.

7 Q. Does the personal protective equipment, or PPE,
8 involve the use of a respirator? I think you mentioned
9 that?

10 A. Yes, it does.

11 Q. When do you put that on?

12 A. When do I put it on?

13 Q. Yeah, you mentioned you don't put it on as soon
14 as you come into the facility.

15 A. No, not until I reach the regulated area that
16 requires you to wear a respirator.

17 Q. Is that an Article 21 regulation that requires
18 you to wear a respirator?

19 A. Yes.

20 Q. Okay. Has anybody at U.S. Steel told you to put
21 on your respirator before?

22 A. Yes.

23 Q. Could you tell me about that?

24 A. Yes. I wasn't wearing a respirator for a moment
25 for whatever reason. I don't know. I know when it's

1 cold out, a lot of time, it freezes to my face and
2 causes a lot of -- like, if I didn't have makeup on, I
3 have a lot of skin damage from a frozen respirator on
4 it.

5 And the guy that walked up, he was quite
6 concerned about my health and safety and said about
7 wearing a respirator, and I thanked him very much.

8 And then not long after that, I don't know how
9 long after that, but Mike Dzurinko had me go into a
10 safety training about wearing a respirator and why we
11 wear a respirator in a regulated area.

12 Q. And what's your understanding as to why you wear
13 a respirator in a regulated area?

14 A. The man that was training, he actually said there
15 is a lot of nasty stuff out there and I need to wear a
16 respirator, and he elaborated to the whole class about,
17 you know, why you wear a respirator. He went into some
18 detail.

19 I don't really recall all the details. But the
20 takeaway from that was you should wear your respirator.

21 Q. You said "nasty stuff." What do you mean "nasty
22 stuff"?

23 A. He just said a lot of nasty stuff out there from
24 the raw coke oven gases and being in a battery area.

25 Q. So the raw coke oven gas was a risk that requires

1 you to wear a respirator?

2 A. Correct.

3 Q. I see. You're outside when you have to wear that
4 respirator though, right? This isn't inside the
5 facility?

6 A. It's a facility, but the facility is outside.

7 Q. Oh, there's no cover over the batteries?

8 A. No, no.

9 Q. So you're outside the entire time?

10 A. Yes.

11 Q. Now, you mentioned, or maybe you didn't mention,
12 but is there somebody that goes along with you to make
13 sure that you are safe in terms of -- I know it's a
14 pretty dangerous facility. Do you have, like, an escort
15 to make sure that you are doing your job safely?

16 A. Yes.

17 Q. Is there one person that escorts you throughout
18 that facility?

19 A. One per day, but the person changes daily.

20 Q. Is there one person in particular that walks with
21 you more than any other?

22 A. It is always a Veolia personnel, but the
23 personnel changes throughout their company. It's not
24 always the same person.

25 Q. I see. Was there ever a time when U.S. Steel

1 personnel escorted you through?

2 A. Yes.

3 Q. Do you remember who that would have been?

4 A. There were quite a few U.S. Steel personnels. Do
5 you want actual names, or...

6 Q. If you remember any.

7 A. There was a Bob Smith. He was a U.S. Steel union
8 personnel with a lot of years and experience. There was
9 an environmental engineer, Coleen Davis. I believe Mike
10 Dzurinko came out with me once. I believe Jonelle
11 Scheetz came out with me a few times.

12 Q. But it seems as though Veolia employees are the
13 ones that are escorting you now; is that correct?

14 A. Correct.

15 Q. At some point, U.S. Steel employees stopped
16 escorting you through the facility?

17 A. Correct.

18 Q. Was there any particular reason why?

19 A. I really don't understand why. I don't know if I
20 ever did understand why.

21 Q. Do you remember when that stopped happening?

22 A. I want to say maybe about three, four years ago.

23 Q. Three, four years ago. Oftentimes, you will see
24 an exceedance or you'll see a smoke event from one of
25 the batteries. Do you convey that to the escort as

1 that's happening?

2 A. Yes.

3 Q. Do you ever get confirmation with respect to what
4 you are seeing from them?

5 A. Yes.

6 Q. So when you say, "Hey" -- and correct me if I'm
7 wrong, but you will see something and you will say
8 something and they will confirm what you are seeing?

9 A. Correct.

10 Q. Any time when they disagree with what you are
11 seeing?

12 A. There has been a few times.

13 Q. When -- have you noticed the -- I'll withdraw
14 that question, sorry.

15 If you alerted the U.S. Steel employees about an
16 issue that you saw with respect to any of the batteries
17 and any of the emissions coming from those batteries,
18 did you find them to be proactive?

19 A. Yes and no. Sometimes if I would mention it,
20 they would respond. Like, if it was a push ~~exceedance~~
21 that I wasn't able to record but I seen an event coming
22 from the push and I mentioned it to a manager, I don't
23 know what they do when I'm mentioning that, but then
24 another one would happen and you would see a lot of
25 smoke but I wouldn't be able to record it. So I would

1 have been a while, but can you recall when the last time
2 it was that you interacted with Coleen Davis as an
3 escort?

4 A. It's been years.

5 Q. More than two?

6 A. Correct.

7 Q. Now, you mentioned something about a drapery on
8 the shed. Are we talking about Battery B?

9 A. B Battery shed, correct.

10 Q. What kind of drapery are we talking about?

11 A. I don't know what it was made out of, but it
12 seemed to hang at the open area where the machine goes
13 in and out under the shed and it seems that, like, any
14 time any emissions would come out of that area, that
15 curtain or that drapery would, like, deflect it and it
16 wouldn't come out of that area.

17 But when it would start to deteriorate or fall
18 down, you would start seeing emissions coming out of
19 that area. And in talking to her, she would talk to
20 someone; and a lot of times, they would have that fixed.

21 Q. Is that drapery or curtain there now?

22 A. I haven't seen it in a long time.

23 Q. Do you remember the last time you saw that there?

24 A. No, I do not.

25 Q. Has it been a number of years?

1 say no, they weren't.

2 Other times, I would; and yes, they would. They
3 would maybe call over there and they would go down for
4 an extended coking time. They wouldn't operate for
5 maybe an hour or a few hours for a corrective action.

6 Q. Any particular employees you thought were
7 particularly proactive versus any other ones?

8 A. I thought Coleen Davis was very proactive.

9 Q. How so?

10 A. It just seemed like, you know, any time we had
11 something to say as an inspector, she would react on it
12 as quickly as possible. She would maybe want more
13 detail. An example would be if I had seen maybe a
14 little bit of smoke coming off a battery, even though it
15 wasn't an ~~exceedance~~, she would want to know more detail
16 about it so she could get it resolved as quickly as
17 possibly.

18 One of the examples is they used to have like a
19 drapery down the one end of the shed and it was starting
20 to deteriorate and move and fall down. And when a lot
21 of emissions would come out of that area, she would want
22 to know about it so she could get that curtain fixed.
23 And it seemed like it had gotten fixed in a short amount
24 of time.

25 Q. Okay. When was the last time -- I know it may

1 A. Correct.

2 Q. Can you describe this drapery, 'cause I'm having
3 a hard time visualizing? Do you know what kind of
4 material it was? Was it plastic? Was it cloth? Was it
5 metal?

6 A. To me, it looked like it was some kind of heavy
7 canvas, like flame-resistant canvas. I never touched
8 it. I never got close enough to it. But it moved in
9 the wind.

10 You know, it wasn't like stationary and hard. It
11 kind of like, you know, flowed like it would be a heavy
12 canvas or some kind of flame-resistant material.

13 Q. Can you give me an idea of how big it is?

14 A. It was huge. It was the width of the shed, but
15 it didn't come all the way down the shed opening because
16 there was machinery that moved in and out of there.

17 But that opening, if you would look at a garage
18 door or look at a door like this, it kind of, like, hung
19 over top of it all the way across the width of it but
20 not all the way the length, not all the way, you know,
21 up and down, just across it on the top part of it.

22 Q. Okay. From your observations of that drapery or
23 curtain, did it look as though it was effectively
24 keeping the emissions from going out from under the
25 shed?

1 A. It ~~seemed~~ like it, yes.

2 Q. But since that's been gone, have you seen
3 emissions coming out from under the shed?

4 A. Yes. And it's not under the shed, it's out the
5 side of the shed.

6 Q. Oh, okay. Could you describe -- I need a little
7 bit better description of the shed. I mean, these
8 batteries are not the size of a car garage; is that
9 fair?

10 A. That's fair.

11 Q. About how big are these batteries in terms of
12 height?

13 A. Meters, three meters, maybe more.

14 Q. Off the ground?

15 A. Correct.

16 Q. From the ground to the top?

17 A. Correct.

18 Q. Okay. And the shed, could you describe how the
19 shed is connected to the battery?

20 A. It's higher than the battery. It's the length of
21 the battery. I would say wider than this room and much
22 longer than this room, several football fields long.
23 I'm not real good at length when it comes to that.

24 Q. Well, a football field is about 100 yards from
25 field goal to field goal.

1 it was structurally connected, I guess it would expand
2 and contract and it would break off maybe. I'm not an
3 engineer. But you could see the area of the shed coming
4 to the battery on the coke side.

5 Q. And the top of the shed, does that hang over top
6 of the battery doors?

7 A. Correct, or part -- the shed -- if you look at
8 the shed and it's connected to the coke side of the
9 battery, everything from the doors up over the traction
10 roll tracks over to the other side of the traction roll
11 tracks. It covers all that.

12 Q. What's a traction roll track?

13 A. Traction -- larry car -- sorry, hot car traction
14 roll tracks, it's where the hot car moves up and down to
15 go and get quenched for the hot coke.

16 Q. And so just so I'm clear, just as in terms of the
17 process, the coke is pushed out into a rail car?

18 A. Correct.

19 Q. That's on a rail like a train rail?

20 A. Correct.

21 Q. And then that car is pushed out to the quench
22 tower, correct?

23 A. Correct.

24 Q. Where water is dropped on top of the hot coke to
25 cool the coke -- to quench the coke?

1 A. Yeah. I would say maybe a football field.

2 Q. Okay.

3 A. And the shed is much bigger than it because it's
4 a lot higher than it from the ground up.

5 Q. Is the shed on an angle in terms of the roof or
6 is it a flat roof?

7 A. It's angled.

8 Q. It's angled. Does the shed wall connect to the
9 ground on the side?

10 A. It's up off the ground. There's openings from
11 the ground on the coke side and then the push -- the
12 side closest to the battery kind of connects to the
13 battery and then it angles up and over and back down to
14 the ground. And then, like, if you're standing at one
15 end, you can see all the way through to the other end.

16 Q. And at the top of the shed, is that connected to
17 the topside of the battery?

18 A. The side of -- the part of the side of the shed
19 would be connected to the battery or closest to the
20 battery with -- I know there's, like, expansion gaps
21 that you can actually, like, have it, like, all the way
22 to the battery.

23 But the part that isn't all the way to the
24 battery, I know they, like, cover it up with material.
25 But it's able to move, I guess, like breathe, because if

1 A. To quench the coke.

2 Q. You mentioned seeing emissions coming out of the
3 side of the shed. Have you ever seen emissions coming
4 up from the top of the shed?

5 A. Yes.

6 Q. From the battery doors?

7 A. You would see emissions closest to the doors on
8 that part of the shed. I imagine if there's enough of
9 it, it would travel all the way to the top of the shed;
10 but you see more of it closest to where the doors are
11 where the shed area is.

12 Q. And what's the characteristic of the emissions
13 that you're seeing? Is it puffy, slow smoke? Is it
14 pushed up quickly? What -- is it white smoke, black
15 smoke? What are the characteristics?

16 A. It's a dark yellow, and it doesn't look like it
17 has like a lot of force when it's coming up and it's
18 isolated to an area.

19 And in that area, if they were pushing in a
20 certain area, you would kind of see it in that area; or
21 if they were charging in that area, you would kind of
22 see it in that area but not necessarily all of the
23 areas, because all of the areas don't have holes in the
24 shed, just certain areas have holes in the shed.

25 Q. At the top, on the topside, certain areas have

1 holes on the topside?

2 A. Yeah. If you're looking at the shed and it's
3 connected to the coke side of the battery and you look
4 behind the standpipes, closest to the standpipe, closest
5 to the doors, you will see emissions coming up from
6 those areas because the standpipe -- which right below
7 those standpipes, the doors are on the coke side.

8 Q. Okay. Does the shed have any access doors or
9 routes from the underside to the exterior?

10 A. Okay. If you're on the coke side of the shed and
11 you look up at the shed, there are two access doors with
12 steps going up to them. They look like man doors, you
13 know, personnel can go in and out of those doors.

14 Q. And would that door lead you to the topside of
15 the battery?

16 A. I don't know where those doors go, honestly.
17 I've never been through those doors.

18 Q. Have you ever seen those doors open?

19 A. Yes.

20 Q. Have you ever seen those doors open during an
21 emissions event?

22 A. Yes.

23 Q. You've seen many coke pushes throughout your time
24 at U.S. Steel Clairton Works, correct?

25 A. Yes.

1 Q. Have you seen any pushes without exceedances?

2 A. Yes.

3 Q. Your understanding of how the coke battery
4 operates, what are the conditions which would allow that
5 to happen, for a push to occur without any emissions?

6 A. Coked out pushed.

7 Q. What does coked out mean?

8 A. No more burning off of the coke. It's left with
9 the carbon as the byproduct or as the waste product.

10 Q. So if something -- if the doors were open prior
11 to the coke -- or coal at that point still not being
12 fully coked out, as you say, would you anticipate to see
13 emissions from that?

14 A. I don't anticipate it 'cause I wouldn't know it
15 wasn't coked out until I seen the emissions. And then
16 if I was able to look down at the larry car and I see it
17 is still burning or smoldering or black, but I wouldn't
18 anticipate it being out or seeing an exceedance. I
19 mean...

20 Q. So let's say there's -- you've seen coke pushes
21 that have occurred after a coking time of less than 18
22 hours?

23 A. Correct.

24 Q. And the coke door is opened and the coke is
25 pushed out, do you typically see emissions at that

1 point?

2 A. You can.

3 Q. Okay. Could you explain to me what a flue cap is
4 or a flue? Let's start with a flue.

5 A. It's a term used for an area that has many flues
6 to heat an oven, and a flue cap -- it's the term used to
7 heat an oven. A flue, it's a part of the battery.

8 They have a series of flues that heat each oven,
9 and each oven has a series of flues on each side of the
10 oven. And the adjacent flues heat the adjacent ovens,
11 so on and so forth. So the flue cap is what covers the
12 flue.

13 Q. Okay. Have you ever seen flue caps open during
14 an emissions event?

15 A. I've seen emissions coming out of them, the open
16 flue cap, yes.

17 Q. You typically would not see emissions coming out
18 of a flue cap when it's closed?

19 A. I've seen emissions coming out of a flue cap when
20 it's closed.

21 Q. Oh, okay. Have you ever asked anybody about why
22 there are emissions coming out of a closed flue cap?

23 A. Yes.

24 Q. What was your understanding as to why?

25 A. They didn't know.

1 Q. They didn't know?

2 A. No.

3 Q. How many times have you asked about that?

4 A. A few times.

5 Q. Different personnel?

6 A. Correct.

7 Q. U.S. Steel personnel?

8 A. Yes.

9 Q. Veolia personnel?

10 A. Yes.

11 Q. And nobody knew?

12 A. They didn't have an answer at that time.

13 Q. Have you had occasion to discuss the maintenance
14 and operation with any of the employees of U.S. Steel
15 with respect to Clairton Coke Works?

16 A. Operation and maintenance?

17 Q. Yes.

18 A. Yes.

19 Q. Have you witnessed maintenance of the facility?

20 A. Yes.

21 Q. In terms of the coke batteries?

22 A. Yes.

23 Q. And you've been doing this since 2008, is that
24 correct, at Clairton Coke Works, your inspections?

25 A. For the county, yes.

1 Q. Which is to say that prior to the county, you
2 were doing inspections at Clairton Coke Works for
3 somebody else?

4 A. Yes.

5 Q. Who would that have been?

6 A. US Filter, Veolia.

7 Q. Veolia. How long were you doing those
8 inspections for Veolia?

9 HEARING OFFICER SLATER: Are US Filter and Veolia
10 the same company?

11 MS. CROWLEY: Yeah, they changed names over my
12 career.

13 HEARING OFFICER SLATER: Okay. So they used to
14 be US Filter and now they are Veolia?

15 MS. CROWLEY: They were US Filter, Vivendi, then
16 Veolia Water North America, then I believe they are
17 Veolia now. I think that's how it went.

18 HEARING OFFICER SLATER: Okay, I just wanted to
19 clarify. Thank you.

20 BY MR. WILLIS:

21 Q. So you have been inspecting U.S. Steel for close
22 to 20 years?

23 A. Correct.

24 Q. And with respect to that 20 years of exposure and
25 having discussed and witnessed the maintenance at the

1 activity?

2 A. A little bit more, yes.

3 Q. You're referring to the door shop? There's like
4 a specific shop for --

5 A. Correct.

6 Q. -- the repair of doors?

7 A. Correct.

8 Q. Have you seen the new doors being brought in or
9 have you ever been down to the door shop to see how they
10 do the door repairs or if new doors are being purchased?

11 A. I've never been into the shop. I ride past the
12 shop and I see more activity now down there. And when
13 they are near the batteries and they change out doors,
14 I'm seeing a little bit more of that again.

15 Q. Okay. Now, I accept that there are quite a
16 number of employees at U.S. Steel and you are not really
17 in the best position to do head counts down there; but
18 as a general proposition, would you say that there are
19 more or less -- more or fewer employees at U.S. Steel
20 from the date you started your inspections until now?
21 Are there fewer employees or more employees now?

22 A. I wouldn't even know how to answer that,
23 honestly.

24 Q. Have you ever noticed any fluctuations?

25 A. I noticed recently that they are hiring a lot of

1 facility over that time, what's your assessment as in
2 terms of the maintenance protocols over that time? Have
3 you seen more maintenance done recently or less?

4 A. There's different degrees of maintenance. I
5 mean, there's -- you know, like right now, they are
6 doing parts of batteries that they are constructing.
7 There are other parts of maintenance that they fix some,
8 quenching tires, maybe machinery, maybe Larry car tracks
9 or hot rails, stuff like that. There's a lot of
10 different things at various times that go on throughout
11 the facility over the years.

12 Q. How about with respect to oven doors?

13 A. Maintenance?

14 Q. Yes. Have you seen more or less maintenance with
15 respect to oven doors?

16 A. There's a period of time that I didn't -- like,
17 when you go into the facility, there's another facility
18 that I believe they maintain and fix the doors. And for
19 a period of time, I didn't see a lot of activity in that
20 area, like changing out doors, fixing doors.

21 Now recently, I couldn't even name a timeframe,
22 maybe within a year, it seems like there is a little bit
23 more activity with changing doors out, fixing and
24 maintaining them, stuff like that.

25 Q. So this year, you're seeing a little bit more

1 new employees.

2 Q. And by "recently," when, what timeframe?

3 A. Within a few years, maybe a year or two. It
4 seems like a lot of new employees coming in.

5 Q. Okay. In 2009, did you -- right around the time
6 of the recession, do you recall when the batteries --
7 there were four batteries that went idle, went to hot
8 idle. Were you an inspector there when those batteries
9 went to hot idle?

10 A. I was an inspector there when three of the
11 batteries went hot idle, 7, 8 and 9 Battery.

12 Q. Okay. And were there more or less employees
13 working up there at that time?

14 A. More, I believe, 'cause I believe the whole unit
15 went down. I don't believe it was hot idle. I believe
16 it was shut down totally in that year of 2009, '07, '08,
17 and '09.

18 Q. You're talking about when they replaced C?

19 A. Correct.

20 Q. Those employees were no longer working in 7, 8, 9
21 but then they had C. So you saw more employees by
22 virtue of the startup of Battery C?

23 A. I really couldn't answer that. I really don't
24 pay much attention to how many employees they have or
25 don't have.

1 Q. Okay.

2 A. I just noticed recently, they started hiring a
3 lot more people. I know they did a hiring boom back
4 years ago. They had a lot of new employees come in
5 maybe 10, 15 years ago. But the last, I guess, maybe
6 year or two, they have been hiring a lot of new
7 employees.

8 Q. You haven't noticed any attrition from 10 years
9 ago to last year?

10 A. Not really.

11 Q. Okay. I have one exhibit for you today. Take
12 about five minutes to look through this document.

13 MR. WILLIS: Where are we now?

14 COURT REPORTER: You'll be at 25.

15 MR. WILLIS: We have time. Take about five
16 minutes to look through this document.

17 HEARING OFFICER SLATER: This is ACHD 25?

18 MR. WILLIS: Yes, sir.

19 HEARING OFFICER SLATER: Okay.

20 BY MR. WILLIS:

21 Q. Take about five minutes. You have time.

22 A. Do you want me to look through every single
23 document?

24 Q. Like I said, just take five minutes and just do a
25 quick scan, if you would, to see what we are looking at

1 But I will, again, Mr. Slater, go through this
2 again at the end page by page to make sure that we don't
3 have any overlap because I don't want anything that is
4 not relevant to this.

5 HEARING OFFICER SLATER: Right, yeah, that's
6 fine.

7 MR. WILLIS: It's just an exercise.

8 HEARING OFFICER SLATER: We can take care of that
9 at the end.

10 (The hearing recessed at 9:39 a.m. and
11 reconvened at 9:50 a.m.)

12 MR. DAUSCH: Is there maybe a way to proceed; and
13 then at our break, she can finish looking at the
14 documents and see if there are any that are an issue?
15 It looks like she's only looked at a portion of the
16 stack.

17 MS. CROWLEY: Yeah, I was making sure they were
18 all --

19 MR. DAUSCH: And maybe at a break, you can
20 continue that process.

21 MS. CROWLEY: Oh, okay.

22 BY MR. WILLIS:

23 Q. Well, why don't you skim through it a little bit
24 faster?

25 A. Okay.

1 so we can talk about it a little bit. I'm going to do
2 the same, so...

3 MR. DAUSCH: Jason, is this a collection -- it
4 doesn't look like the Bates labels run consecutive. I'm
5 assuming you just collected all the inspection sheets
6 that were produced?

7 MR. WILLIS: Correct. And what I did was I
8 segregated the inspections to just those for the period
9 of the enforcement order.

10 I would note, we had the same issue with -- at
11 least two sheets in here somewhere that either go to the
12 second quarter or go -- of 2017 or the second quarter of
13 2018 because they were copied on both sides of the page.

14 Like we said -- like we mentioned earlier, I can
15 certainly take some time at the end of the hearing and
16 find those pages. We copied them to make sure that the
17 proper pages are incorporated and there's nothing that
18 goes beyond the relevant period of time.

19 MR. DAUSCH: And I'm looking at the stack and it
20 looks like every one of them has a Bates label. So I'm
21 assuming these are all the same documents that you
22 produced in discovery?

23 MR. WILLIS: Yeah, yeah. I mean, the Bates
24 labels, this is from the first document request because
25 of the Bates labels being in the low hundreds.

1 Q. Make sure what's there is there. Angela, I think
2 we can multitask as you continue to review. I don't
3 want you to stop, but I do want to ask you a couple
4 questions.

5 You mentioned that you were a panel member for
6 the certification 303 inspections?

7 A. Yeah, the EPA panel member, yeah.

8 Q. Okay. Is there anybody at the -- that works for
9 Keramida, the county's third-party contractor, that you
10 oversaw in terms of their certification?

11 A. Yes.

12 Q. Who would that be?

13 A. I believe it was Gradwatt Haines (phonetic.) I
14 don't recall Ed's last name right now. There is a lady
15 by the name of Melissa. I believe those ones.

16 Q. And were those individuals that worked for Veolia
17 at one point?

18 A. A few of them did, yes.

19 Q. Then when Veolia was no longer the third-party
20 contractor for the county, they moved over to Keramida?

21 A. They got hired by Keramida, correct.

22 Q. Am I correct in understanding that as part of
23 your duties in terms of doing regular daily inspections,
24 that you also participate in the review of stack
25 testing?

- 1 A. Correct.
- 2 Q. Is your role the same with respect to evaluating
3 emissions during a stack test?
- 4 A. Correct.
- 5 Q. As you are going through this, can you tell me
6 the types -- the inspection types you are tasked with
7 performing?
- 8 A. I do visible emission observations at Clairton,
9 their 10 batteries. I will do pushing observations.
10 I'll do charging observations, soaking, topsides, doors.
- 11 Q. What does topsides involve?
- 12 A. Topsides, you are looking for offtake leaks.
- 13 Q. What's an offtake?
- 14 A. An offtake are standpipes. If you have a double
15 main system, each double main system has a series of
16 offtakes.
- 17 If you have a single main, it only has one side
18 with offtakes and that would be on the pusher side of C
19 Battery, and you are inspecting lids also during that
20 observation.
- 21 Q. What's a lid?
- 22 A. Lids are ports where they put coal into the oven.
23 So they take the lids off, and they put coal into the
24 oven via through the ports.
- 25 Q. And then put the lid on top of the ports?

- 1 A. Correct.
- 2 Q. Is there a purpose to the lids?
- 3 A. To seal up the oven.
- 4 Q. And why would you want to do that?
- 5 A. So no heat, emissions or anything come out of
6 that oven so it can coke out.
- 7 Q. Okay. So it's a part of the process of coking
8 the coal that's inside the oven?
- 9 A. Correct.
- 10 Q. Okay. Are you Method 9 certified?
- 11 A. Yes.
- 12 Q. How long have you been certified for Method 9?
- 13 A. I believe the first time I got certified was
14 1998.
- 15 Q. Has that certification ever lapsed?
- 16 A. Never.
- 17 Q. And how often do you get recertified?
- 18 A. Twice a year.
- 19 Q. So you've been recertified twice a year since
20 1995?
- 21 A. '98, I believe.
- 22 Q. '98?
- 23 A. Yeah.
- 24 Q. The county has another coke oven process
25 technician. Who is that?

- 1 A. Gary Downard.
- 2 Q. Did Gary work with the county or begin work with
3 the county after your start date, after you?
- 4 A. Correct.
- 5 Q. Did you train Gary?
- 6 A. Yes.
- 7 Q. And as part of his training, what did you do?
- 8 A. Got him acclimated to the facilities that we were
9 inspecting. We -- when I first took him out, I was more
10 or less gearing towards safety, making sure he was able
11 to maneuver around.
- 12 And then I slowly started putting in different
13 parts for what we do for our job as far as looking at
14 charging, offtakes, pushing, soaking at the two
15 facilities we had inspected when he started.
- 16 Q. When you first started work with the county, were
17 you doing more or less or fewer inspections than you do
18 today?
- 19 A. Fewer.
- 20 Q. Substantially fewer?
- 21 A. I would say, yes.
- 22 Q. Okay. Did you ever do inspections from the
23 hillside?
- 24 A. Yes.
- 25 Q. How many of those would you do in a given month?

- 1 A. I couldn't even name a number. I would say
2 probably at least once a day outside the facility to get
3 an idea of what was going on in the facility.
- 4 But I did hillside -- they call it RM10 when I
5 was with the contractors, and I did it every time there
6 was a Stage 2 alert just about. Maybe not every time
7 there was one. But when it was my turn to take, I would
8 do hillside observations of the plant.
- 9 Q. What's a -- sorry, I didn't mean to interrupt
10 you.
- 11 A. That's fine.
- 12 Q. What's a Stage 2 alert?
- 13 A. It is a RM -- they call it RM2.5. I believe it
14 was called RM10 back in the day. When there was a
15 temperature inversion, they would want somebody on the
16 hillside to monitor the facility and just write down all
17 the different emission points that you've seen, that it
18 could be a bad charge on a battery, bad doors, anything
19 that was smoking, they wanted you to report back to the
20 plant and record everything on a document.
- 21 Q. Did you have a lot of occasion to do that?
- 22 A. Yes.
- 23 Q. How often would you say?
- 24 A. Every time there was a Stage 2 alert. In 10
25 years, I want to say a couple dozen, maybe more.

- 1 Q. A couple dozen Stage 2 alerts?
- 2 A. That I participated in hillside monitoring,
3 correct.
- 4 Q. Okay. I would just note you're taking great care
5 with respect to going through each inspection. Is this
6 something that you typically do in your job? I mean,
7 are you this meticulous?
- 8 A. Yes.
- 9 Q. Okay, let's talk about how you treat your
10 reports. When you finish your report for the day, do
11 you give that information to U.S. Steel?
- 12 A. They get a copy of all of my reports.
- 13 Q. Every day?
- 14 A. Every day that I do an inspection, correct.
- 15 Q. And what do you do with the reports that
16 ultimately end up with the county?
- 17 A. I put a clip on them and then I put them into a
18 folder and then I put them into my clipboard that I
19 rubber-banded off and I put them into a file in my
20 vehicle, and that's where they stay until I pass them on
21 to our office or my colleague for data entry.
- 22 Q. That's something you do every week?
- 23 A. Every other week.
- 24 Q. Every other week?
- 25 A. Correct.

- 1 Q. Okay, explain that process. You mentioned that
2 you bring it into who? Who do you bring it to into the
3 office?
- 4 A. I bring it in and I do the data entry and then I
5 eventually pass it on to Carl.
- 6 Q. Who is Carl?
- 7 A. Carl Dettlinger -- he is right over here -- at
8 the office. He's -- I don't know his actual title, but
9 he takes them after I'm done with them. I'm not sure
10 exactly what he does with them.
- 11 Q. But before you give it off to Carl, what do you
12 do with the reports?
- 13 A. I enter it into a spreadsheet.
- 14 Q. What do you mean by enter it in?
- 15 A. I take all the data from the inspections and I
16 put them into a -- into the computer into a spreadsheet
17 so each inspection gets reviewed from our office.
- 18 Q. And you do that just with your inspections?
- 19 A. Mine and Gary's.
- 20 Q. Yours and Gary's?
- 21 A. Correct.
- 22 Q. Any particular reason why you would do Gary's as
23 well?
- 24 A. There's a little reason. Like, back in my
25 younger years with the county -- it was prior to me, but

- 1 they used to take turns and then it was passed on to the
2 less senior employee because the senior employee didn't
3 want to do the data entry.
- 4 And then when I started, it started like that
5 again. I was the lesser of the senior and that person
6 didn't want to do it, so I did it.
- 7 And then we had gotten new supervisors, and he
8 thought it was fair for us to trade off. So if I wanted
9 to always do it and someone else wanted to do it, they
10 would be allowed to take turns.
- 11 Q. How long were you the less senior technician?
- 12 A. I'm trying to think when Beryl retired. I'm
13 going to say he's been retired about three years, so
14 about seven years.
- 15 Q. Seven years you've been doing the data entry for
16 both inspectors?
- 17 A. Correct, all the inspectors, correct.
- 18 Q. After then after Beryl -- is that Beryl Denne?
- 19 A. Correct.
- 20 Q. After he retired, the decision was made to
21 alternate?
- 22 A. I don't think it was after he retired. I want to
23 back up here a little bit.
- 24 When Gary got hired about five years ago, I want
25 to say, we got a supervisor; and I think around that

- 1 time, he determined -- so maybe about five years I was
2 doing it by myself.
- 3 Q. Okay. Who is your supervisor?
- 4 A. Bill Rousche (phonetic.)
- 5 Q. So Bill Rousche decided it was more fair for you
6 to take turns in entering the data for both you and
7 Gary?
- 8 A. Correct.
- 9 Q. And you do that on payday; is that correct?
- 10 A. Correct.
- 11 Q. So once a month you come in, and then once a
12 month he comes in?
- 13 A. Correct.
- 14 Q. Gary comes in?
- 15 A. Correct.
- 16 Q. And in entering the data, have you ever caught an
17 error?
- 18 A. Yes.
- 19 Q. Your error?
- 20 A. Yes.
- 21 Q. Gary's error?
- 22 A. Yes.
- 23 Q. What do you do with that?
- 24 A. If it is Gary's error, I try to get ahold of him
25 and find out what's going on or make a copy.

1 If it's something simple, I might go over to my
2 supervisor and ask him to watch me edit it, make a copy.
3 And if I catch my own, I just make the correction
4 and pass it onto the Veolia escort with a revised copy.
5 Q. What kind of error would you coordinate with your
6 supervisor over? You mentioned that you would edit it
7 and have him oversee that edit?
8 A. Yeah, I'm not sure. If it's something a little
9 bit complex, like a violation, it might be something
10 like that. But if it is just a simple typo, I wouldn't
11 do that. And if he wasn't available, I wouldn't be able
12 to do that.
13 Q. If it's Gary's error and it was a simple typo,
14 how would you know? What kind of typo would it be?
15 A. If it was 2018 and he wrote down 2017.
16 Q. Oh, I see. In your inspections or as a part of
17 your inspections, you do not do actual visible emission
18 observations for the coke side of Battery B?
19 A. Correct, I do not.
20 Q. Have you ever done those observations?
21 A. Yes.
22 Q. When were you doing that observation?
23 A. When I was doing Method 303 inspections with the
24 contractors.
25 Q. So when you were working with Veolia, you would

1 do 303?
2 A. Correct.
3 Q. And to your understanding, that's what Keramida
4 does now?
5 A. Correct.
6 Q. But since you've worked with the county, you've
7 not done Method 303?
8 A. I have not.
9 Q. So in doing Method 9, you do not do observations
10 on the coke side of Battery B?
11 A. Method 9?
12 Q. Yes. You don't do Method 9 observations on the
13 coke side of Battery B?
14 A. I do not.
15 Q. Okay. Could you do observations on the coke side
16 of Battery B?
17 A. From the ground to look at VEs coming off of the
18 shed, yes.
19 Q. Coming off the shed. You wouldn't be able to see
20 a specific door, but you would be able to see emissions
21 coming off of the shed?
22 A. Correct.
23 Q. Do you often see emissions coming off of the
24 shed?
25 A. Yes.

1 Q. How far along are you in that packet, by the way?
2 A. It looks like I'm almost half.
3 Q. What's the page number? At the bottom of the
4 page, you'll see an ACHD number. How far along are you?
5 A. It looks like ACHD002424.
6 Q. Okay. I'm going to have you continue doing your
7 review of this. But for the moment, I'm going to have
8 you flip to ACHD650.
9 HEARING OFFICER SLATER: Is that one of the ones
10 she's already looked through?
11 MR. WILLIS: That's a good question. I don't
12 know.
13 MS. CROWLEY: There's no way I'm going to find
14 this, am I? Sorry about this.
15 HEARING OFFICER SLATER: Are the pages numbered?
16 MR. WILLIS: They are. They are all numbered.
17 They should all be sequential.
18 HEARING OFFICER SLATER: Okay.
19 MR. PARKER: So what was the number again?
20 MR. WILLIS: It is 650.
21 MS. CROWLEY: ACHD and the last --
22 MR. WILLIS: 650.
23 MS. CROWLEY: 650.
24 MR. PARKER: It should be near the bottom of your
25 stack. Not quite that close to the bottom.

1 MS. CROWLEY: 'Cause I'm coming up with 9419,
2 that's where I'm at. And then on top of it is 2409. So
3 I would assume it's over this way. 650 is way over this
4 way. I didn't get to those yet.
5 BY MR. WILLIS:
6 Q. I apologize, Ms. Crowley, it looks like I
7 presented that to you upsidedown. And because of the
8 two-sided issue, you are working a little bit backwards
9 from where we are.
10 A. Okay, I'm on 650 now.
11 Q. Okay. Could you identify this particular sheet?
12 A. It's a door inspection.
13 Q. Okay. And is this one of your door inspections?
14 A. Yes, it is.
15 Q. Could you tell me when this inspection was done?
16 A. August 4th of 2017.
17 Q. And to which battery?
18 A. B Battery.
19 Q. Okay. There's no time on here. I see that there
20 is a start time and an end time, but there is no time of
21 the actual inspection; is that fair?
22 A. There's no times on the coke side, no.
23 Q. Okay. On the right-hand side, there's a big line
24 through the coke side. Why is that?
25 A. There was no shed inspection under the shed for

1 door observations.

2 Q. But you note that on each of these B Battery
3 inspections?

4 A. Yes.

5 Q. Why do you do that?

6 A. It is non-observed.

7 Q. Do you note every non-observation?

8 A. Yes.

9 Q. Do you have a lot of non-observations?

10 A. For B Battery shed?

11 Q. I'm sorry, is this just for B Battery that you do
12 the non-observations?

13 A. No.

14 Q. What other circumstances would you note something
15 as being a non-observation for which you've noted on
16 your report?

17 A. If it was blocked by the machine or anything else
18 that I wasn't able to observe it.

19 Q. I see. Well, at the bottom of that same page, it
20 says, "not observed" or "out-of-service ovens." And on
21 the push side, it says, "B20." Is it fair to say that
22 B20 was out of service at that time?

23 A. Correct.

24 Q. If you didn't observe B20, would you note that in
25 some other way? Because it doesn't -- it doesn't look

1 with respect to what you are looking at, continue to do
2 so as I try to ask you questions.

3 I know you may get a little reverted (phonetic);
4 but I do want to make sure that at the end of this, you
5 can definitively say, "These are the inspections with
6 respect to Clairton Coke Works."

7 And if you can't say that, I would like to know
8 why that would be too. So please continue with that
9 inspection as I continue to go through some of these
10 questions. If you could reach in and find page 1036?

11 A. I have 1036.

12 Q. Okay. I know this is not an inspection that was
13 performed by you, but you've trained Gary Downard in how
14 to fill out one of these forms, correct?

15 A. Correct.

16 Q. Is this form consistent with your instruction?

17 A. Yes.

18 Q. What are we looking at in terms of this document
19 here?

20 A. We are looking at that it's a pushing sheet by
21 Allegheny County Health Department, Air Quality Program.
22 The facility is the plant, and that would be U.S.S.
23 Clairton. The date is 7/3/17.

24 And we also look at his name as the inspector,
25 and then we have noted that there are plant personnel,

1 like there's any way to determine whether or not it's
2 out of service or that it was just simply not observed?

3 A. Well, the non-observed side -- and then there's a
4 slash. So when I do my paperwork -- and you are out
5 there in the elements and walking around -- but what I
6 try to do is if it's non-observed, I put it on that side
7 of the block; and if it is out of service, I try to keep
8 it over on that side.

9 Q. So you have a process of your own for making
10 clear what that designation means?

11 A. Correct.

12 Q. I see. And on the right side, you didn't simply
13 put "not observed" in that same block below. Any
14 particular reason why?

15 A. With a line through it and marked as a shed, it
16 was just a custom that that is what that meant as they
17 were not observed.

18 Q. I understand. But this is just your own personal
19 protocol for how you designate that you are looking at a
20 shed or not observing because of a shed on your reports?

21 A. Correct.

22 Q. Okay. You can continue.

23 A. Okay. Are we done with that B Battery one?

24 Q. Yes. And I would just say, you know, to the
25 extent that you need to go through and satisfy yourself

1 which is from a Veolia personnel.

2 We also look at the battery, the oven, the
3 information as far as the time of the coke being pushed,
4 any VEs, the time that it was quenched, the inspector's
5 position, the background, and any other important
6 information.

7 Q. Is this a Method 9 observation?

8 A. Correct.

9 Q. And is this observation consistent with your
10 understanding of how Method 9 is to be calculated or to
11 be observed?

12 A. Yes.

13 Q. Okay. And would this differ in any way from the
14 way in which you would do an observation?

15 A. No.

16 Q. Is this what you would expect to find in one of
17 your own observations in terms of the level of detail?

18 A. Yes.

19 Q. Is there anything missing that you -- any
20 information missing that you would find useful with
21 respect to Method 9?

22 A. Everything looks like it appears to be there.

23 Q. Okay. I want to move to 1550.

24 HEARING OFFICER SLATER: 1550?

25 MR. WILLIS: 1550, yes, sir.

1 MS. CROWLEY: It looks like it's out of order.
 2 I'm on 1550.
 3 BY MR. WILLIS:
 4 Q. Okay. What are we looking at here?
 5 A. I'm looking at the Allegheny County Health
 6 Department's soaking and emissions observation of the
 7 Clairton plant on 7/11/17, the Air Quality Program, from
 8 Angela Crowley and plant personnel at Veolia, and it's
 9 soaking.
 10 Q. Okay. Is this indicative of the soaking
 11 observation form that you used?
 12 A. Correct.
 13 Q. And there's been no change to the observation
 14 report, to your knowledge?
 15 A. Can you please repeat that?
 16 Q. There's been no change to the way in which you
 17 make your visible emission observations with respect to
 18 soaking?
 19 A. No, this looks correct.
 20 Q. And this is a sort of document that you would
 21 have reviewed with Gary in terms of his training?
 22 A. Yes.
 23 Q. And when you enter the data for Gary on those
 24 occasions in which you do, this is consistent with what
 25 you found in terms of the --

1 A. Yeah.
 2 Q. I'll finish. -- in terms of the amount of data?
 3 A. Yes.
 4 Q. Okay. This one should be a little easier to
 5 find. The numbers are a little bit larger. I'm looking
 6 at 8137. I apologize if I'm messing you up a little
 7 bit.
 8 A. You're fine.
 9 Q. Okay, thank you.
 10 A. I have 8137.
 11 Q. Okay. What are we looking at here?
 12 A. This looks like the Allegheny County Health
 13 Department, Air Quality Charging Inspection for U.S.S.
 14 Clairton on January 9th, 2018, with the inspector as
 15 myself and the plant personnel on 3 Battery for
 16 charging.
 17 Q. Okay. This chart looks a little bit different
 18 from the ones that we've seen before. What are we
 19 looking at in that rectangular box?
 20 A. This just represents that this is the battery and
 21 I'm on the battery doing charging observations.
 22 Q. Okay. What is CS?
 23 A. Can you please repeat that?
 24 Q. What is CS on that rectangle?
 25 A. Coke side.

1 Q. And the PS?
 2 A. Pusher side.
 3 Q. And this is what you use for every charging
 4 inspection?
 5 A. Correct.
 6 Q. And this is what Gary would use as well?
 7 A. Correct.
 8 Q. And is this consistently used? Do you use
 9 different forms for doing your charging observations?
 10 A. This looks like the standard form that I've been
 11 using for a while.
 12 Q. Okay. I'm going to move to 9385.
 13 A. I have the 9385.
 14 Q. Okay. What are we looking at here?
 15 A. This, again, is the Allegheny Health Department,
 16 Air Quality Program, topside inspection for the U.S.S.
 17 Clairton plant on February 1st, 2018, B Battery. The
 18 inspector is myself along with a plant personnel from
 19 Veolia.
 20 Q. Okay. This also has the rectangular box at the
 21 top?
 22 A. Uh-huh (affirmative.)
 23 Q. Where it says, "push side/coke side," there is a
 24 -- some line through the middle of that. What does that
 25 line mean?

1 A. That's showing the direction of the wind going
 2 from the coke side to the pusher side.
 3 Q. Do you always have that notation in there?
 4 A. I try to, yes.
 5 Q. What's the point of that?
 6 A. There isn't.
 7 Q. Okay. With respect to your observations here, it
 8 looks like under "lids," that is stricken out. Why is
 9 that?
 10 A. There's no lids leaking.
 11 Q. So you only note the leaks?
 12 A. Correct.
 13 Q. And if there are no leaks, you'd put a line
 14 through that column?
 15 A. I tried to remember to do that, yes, just to show
 16 that I actually did the lid observation and it wasn't
 17 left hanging with a blank.
 18 Q. Okay. And because you are on the topside and it
 19 says push side/coke side, what leaks are you seeing
 20 there? What emissions are you seeing when it just says,
 21 "Push side, A18"? You're on the topside of the battery.
 22 Where are you seeing those emissions coming from?
 23 A. The pusher side of the A18 is what they called a
 24 dampened-off oven. So it comes out of the calculation
 25 but it is not counted as a leak, I believe. So we are

1 noting the ~~dampered-off~~ ovens, we are noting any of the
2 leaks from any of the ovens, along with any of the lid
3 leaks on that topside inspection.

4 Q. So you're just looking for emissions here? You
5 are not really determining violations necessarily?

6 A. I'm looking for anything that's leaking on the
7 topside inspection, not a violation, just a leak.

8 Q. Okay. A20 and A22, same thing?

9 A. Correct.

10 Q. And what about on the coke side, what are you
11 looking at when it says "A20" and there is a D there?
12 Is that the damper for coke side?

13 A. Correct.

14 Q. Could you explain the other letters that go
15 across that row: D, C, F, S, B, P, O?

16 A. The D is for ~~dampered-off~~ ovens. The C is for
17 the cap. The F is for the flange. The S is for the
18 slip joint. The B is for the base. The P is for the
19 piping. And "other" is for the O.

20 Q. Okay. I'm going to look -- moving to -- this
21 will be a little difficult to see, but it is page 3153.
22 It is in small type. What do we have here?

23 A. 3153?

24 Q. Yes.

25 A. Okay.

1 see a flame at the standpipe?

2 A. I don't know the reasoning why the flame and the
3 no flame, but that was something that we were just
4 trained to observe.

5 Q. Okay. So you're not making any assessment as to
6 what you are seeing, you are just noting what you are
7 observing?

8 A. Correct.

9 Q. Okay. Have you ever been instructed as to how to
10 do your -- well, let me rephrase that.

11 Not how to do your inspection, but what order or
12 what batteries to inspect in any particular order?

13 A. We were just asked to at least get one inspection
14 type off of each of the batteries per month, and then
15 everything else was more or less left up to the
16 inspectors.

17 Q. Do you understand the reasoning as to why that
18 request was made?

19 A. My understanding was that there is a question
20 asked about a particular place and time on a particular
21 month and there was no information, there was no answer.
22 So we were asked to at least get that.

23 Q. Do you do an inspection of every battery every
24 day?

25 A. No.

1 Q. Okay, what are we looking at here?

2 A. This looks like the Allegheny County Health
3 Department, Air Quality Program's soaking emissions
4 observation for U.S.S. Clairton plant on March 12th,
5 2018, with the inspector as Gary Downard. Plant
6 personnel would be Veolia on 2 Battery soaking
7 observations.

8 Q. Okay. Right below where it says, "Method 9
9 readings," there are a number of letters, for lack of a
10 better term. Could you explain what we are looking at
11 where it says 0:00 F or NF?

12 A. Yeah. The time would be the starting time of the
13 observation, and then the F was representing flame, and
14 the NF was representing no flame. Is that what you're
15 asking?

16 Q. Yes.

17 A. Okay.

18 Q. What does flame or no flame mean?

19 A. They were determining if you see a flame or if
20 you didn't see a flame. So no flame can also be clear
21 or no flame can have an emissions value. The flame, you
22 can clearly see a flame or a flame with emissions.

23 Q. Where is the flame coming from?

24 A. From the standpipe.

25 Q. Do you have any understanding as to why you would

1 Q. Would it be feasible to do that in an eight-hour
2 shift?

3 A. No.

4 Q. There are only two inspectors for the county.
5 Would it be feasible for the two inspectors to cover
6 that territory in that period of time?

7 A. No.

8 Q. Prior to being asked to take -- to make those
9 inspections in that fashion, what was the protocol for
10 inspections in terms of the number of batteries and the
11 batteries particularly to observe?

12 A. There wasn't any.

13 Q. When did that change?

14 A. I believe when Dean DeLuca came on for our
15 manager.

16 Q. So it was within the past 10 years?

17 A. Yes.

18 Q. Okay. Did you have any interactions, when you
19 were with Veolia, did you have any interactions with the
20 then-ACHD inspectors?

21 A. Yes.

22 Q. Did you understand what they were doing, why you
23 were doing your Method 303 inspections?

24 A. Yes, 'cause I was also doing Method 9 inspections
25 also.

1 Q. For Veolia?
 2 A. Correct.
 3 MR. WILLIS: I have no more questions.
 4 HEARING OFFICER SLATER: This seems like a good
 5 time to take our ~~mid-morning~~ break.
 6 (The hearing recessed at 10:25 a.m. and
 7 reconvened at 10:35 a.m.)
 8 HEARING OFFICER SLATER: Are we ready to pick
 9 back up?
 10 MR. WILLIS: Max, I failed to note at the
 11 beginning of the break that I wanted to get that
 12 document admitted.
 13 HEARING OFFICER SLATER: Yeah.
 14 MR. WILLIS: So I would move to have that -- the
 15 inspection reports admitted as Exhibit 25.
 16 HEARING OFFICER SLATER: Any objection, Mr.
 17 Dausch?
 18 MR. DAUSCH: No objection.
 19 HEARING OFFICER SLATER: All right, ACHD 25 is
 20 admitted.
 21 MR. WILLIS: Thank you.
 22 HEARING OFFICER SLATER: As with separate other
 23 exhibits, we can take care of the double-sided issue at
 24 the conclusion of the hearing or whenever there's a
 25 convenient point to do that.

1 Mr. Dausch, did you have some questions for Ms.
 2 Crowley?
 3 MR. DAUSCH: I do.
 4 CROSS-EXAMINATION
 5 BY MR. DAUSCH:
 6 Q. Ms. Crowley, when you are doing your inspections
 7 every day, one of the things you are looking for is
 8 visible emissions that you can see with your naked eye,
 9 correct?
 10 A. Correct.
 11 Q. And you are also occasionally estimating opacity,
 12 correct?
 13 A. I'm doing the opacity rating, correct.
 14 Q. Right. And you are estimating the percentage of
 15 opacity based on the reading?
 16 A. Yeah, certified opacity reading.
 17 Q. In very general terms, opacity is how dark a
 18 plume is?
 19 A. Correct.
 20 Q. And when you're out doing your opacity and your
 21 inspections for visible emissions, you are not using any
 22 kind of measurement devices or other recording
 23 equipment, correct?
 24 A. No, nothing at all.
 25 Q. Yeah, you're just using your eyes?

1 A. Correct.
 2 Q. And every day, you fill out handwritten
 3 inspection sheets; is that right?
 4 A. Yes.
 5 Q. And then at the end of the day, you take your
 6 handwritten inspection sheets and you keep them in the
 7 trunk of your car?
 8 A. Correct.
 9 Q. And then on some basis, either you or your
 10 colleague, Gary, the other inspector, come down to this
 11 building and hand enter that data into an Excel file, in
 12 a computer?
 13 A. Correct.
 14 Q. The visible emissions inspections you do on the
 15 batteries are for charging ports, offtakes, doors and
 16 pushing; is that correct?
 17 A. Correct.
 18 Q. Anything else?
 19 A. Soaking.
 20 Q. Is soaking for visible emissions or for opacity?
 21 A. Both.
 22 Q. Okay. Anything else you do visible emission
 23 inspections for?
 24 A. I believe that's it.
 25 Q. You do opacity inspections for doors and soaking?

1 A. Correct.
 2 Q. Anything else?
 3 A. Pushing.
 4 Q. Anything else?
 5 A. Traveling.
 6 Q. Anything else?
 7 A. If I'm required to do a stack and any other
 8 assignments, but pretty much those are it.
 9 Q. Okay. And you have discretion each day as to
 10 where you are going to inspect, correct?
 11 A. Correct.
 12 Q. And you have the discretion as to the number of
 13 inspections you are going to do?
 14 A. Correct.
 15 Q. You have discretion as to the type of inspection
 16 you are going to do?
 17 A. Correct.
 18 Q. Inspection methods exist for compliance
 19 demonstrations; is that correct?
 20 A. I'm assuming.
 21 Q. Do you know?
 22 A. I don't know.
 23 Q. Can we agree that inspection methods exist so
 24 there's a standard way that inspections are done?
 25 A. Correct.

- 1 Q. And that's to make sure inspections are done
2 reliably?
- 3 A. Correct.
- 4 Q. Consistently?
- 5 A. Correct.
- 6 Q. Properly?
- 7 A. Correct.
- 8 Q. You're certified under two different methods; is
9 that correct?
- 10 A. Yes.
- 11 Q. One of those methods is EPA's Method 303?
- 12 A. Correct.
- 13 Q. Can you look at the binder in front of you that
14 is U.S. Steel's first binder, Exhibit 35. Is that
15 Binder 1 with Tab 35? They are numbered tabs on the
16 side.
- 17 A. And you want one, 35?
- 18 Q. Correct.
- 19 A. Okay, 35.
- 20 Q. And I assume you've read Method 303 before?
- 21 A. It's been a while, yes.
- 22 Q. And does Exhibit 35 show Method 303?
- 23 A. It says "Method 303."
- 24 Q. Is this the method that you are certified under?
- 25 A. Yes.

- 1 Q. And Method 303 is not for observing opacity; is
2 that correct?
- 3 A. Correct.
- 4 Q. That would be a different method?
- 5 A. Correct.
- 6 Q. Method 9?
- 7 A. Correct.
- 8 Q. Can you look at Exhibit 36? Ms. Crowley, you've
9 read Method 9 before?
- 10 A. Yes.
- 11 Q. And Exhibit 36 is EPA's Method 9?
- 12 A. Yes.
- 13 Q. Okay. For both of those methods, you had to
14 become certified, correct?
- 15 A. Correct.
- 16 Q. And certification included, at the beginning,
17 some type of test that you had to pass; is that fair?
- 18 A. Correct.
- 19 Q. You have to be recertified for those methods on
20 some basis?
- 21 A. Yes.
- 22 Q. Other than the certification that you do for
23 Method 303 and Method 9, you haven't had any other
24 emissions observations training since you've been a
25 county inspector, correct?

- 1 A. Correct.
- 2 Q. You do inspections for Article 21 requirements?
- 3 A. Yes.
- 4 Q. And you don't know what the NESHAP requirements
5 are; is that correct?
- 6 A. I do but I don't. I -- I remember them sometimes
7 and sometimes I don't. But I'm aware of them, correct.
- 8 Q. Do you do inspections for NESHAP requirements?
- 9 A. I do not.
- 10 Q. The inspections you do for Article 21
11 requirements, you don't follow Method 303?
- 12 A. Correct.
- 13 Q. You follow the source testing manual?
- 14 A. I use the manual, yes.
- 15 Q. Okay. And you use the manual and not 303 because
16 that's how you were trained as an inspector, correct?
- 17 A. Correct.
- 18 Q. Method 303 and the source testing manual differ
19 for all procedures?
- 20 A. Yes.
- 21 Q. You've reviewed the source testing manual when
22 you were initially hired in the 2008 timeframe, correct?
- 23 A. Yes.
- 24 Q. And you didn't have to take any test on the
25 source testing manual?

- 1 A. None.
- 2 Q. And there is no certification on the source
3 testing manual, correct?
- 4 A. None.
- 5 Q. You didn't have any formal training on the source
6 testing manual since you were hired in approximately
7 2008?
- 8 A. Informal training.
- 9 Q. And you don't review the source testing manual on
10 a regular basis; is that fair?
- 11 A. I glance at it periodically, correct.
- 12 Q. Not on a regular basis?
- 13 A. I'm not sure what you mean by "regular," but I
14 view it periodically.
- 15 Q. Just on occasion?
- 16 A. Periodically.
- 17 Q. There's no procedures that are done by the
18 Department to make sure that you are following the
19 source testing manual, correct?
- 20 A. There's no procedures?
- 21 Q. Yes.
- 22 A. I don't think so, not that I'm aware of.
- 23 Q. And there's no type of audit done on your
24 inspections to make sure they're being done consistent
25 with the source testing manual, correct?

1 A. Not that I'm aware of.

2 Q. Can you look at Exhibit 22, which is the source
3 testing manual? Ms. Crowley, if you could please look
4 at Chapter 109 in Exhibit 22? And this is U.S. Steel's
5 22.

6 HEARING OFFICER SLATER: About what, two-thirds
7 of the way in?

8 MR. DAUSCH: Yeah.

9 HEARING OFFICER SLATER: We looked at that
10 yesterday.

11 MR. DAUSCH: We have. I would say a little bit
12 more, probably three-fourths of the way towards the back
13 of the document. It starts and says, "Chapter 109."
14 BY MR. DAUSCH:

15 Q. Have you read Chapter 109 in the source testing
16 manual before?

17 A. This whole Chapter 109, yes.

18 Q. Okay. And I want to start on the first page. Is
19 this the chapter that you follow for your inspections at
20 the Clairton plant?

21 A. Correct.

22 Q. All right. Let's look at the very first page
23 where it says, "Chapter 109." Do you see the reference
24 to Environmental Protection Agency, Method 109?
25 A. Yes.

1 each door. Do you see that?

2 A. Yes.

3 Q. Do you follow that procedure?

4 A. I do.

5 Q. Okay. And do you see on the next page, there's
6 also a requirement under the source testing manual for
7 door inspections; that the observer walks along both
8 sides of the battery. Do you see that?

9 A. Correct.

10 Q. And you don't do that for the B Battery, correct?

11 A. I do not.

12 Q. So for the B Battery, you don't follow the terms
13 of the source testing manual?

14 A. I do not do B Battery shed, correct.

15 Q. Right. So for the B Battery shed, you don't
16 follow the terms of the source testing manual?

17 A. Correct.

18 Q. Do you see at Chapter 109, Section A there are
19 requirements for charging?

20 A. Yes.

21 Q. The very last sentence says, "Compliance shall be
22 determined by summing the seconds of charging emissions
23 observed during each of the four charges." Did I read
24 that correctly?
25 A. Correct.

1 Q. You've never seen that method before; is that
2 fair?

3 A. I have not.

4 Q. And you've never had any training on EPA Method
5 109, correct?

6 A. Not that I'm aware of, 'cause I don't know what
7 it is.

8 Q. Okay. Can you look at the next page? The source
9 testing manual includes requirements related to doors,
10 both door opacity and door visible emissions
11 inspections; is that correct?

12 A. Yes.

13 Q. And if you look at Chapter C -- or Section C of
14 Chapter 109, that relates to visible emissions from door
15 areas, correct?

16 A. Chapter 109B?

17 Q. C.

18 A. C is related to what?

19 Q. Doors.

20 A. Okay.

21 Q. Is that correct?

22 A. Yes.

23 Q. Okay. And the source testing manual has a
24 requirement that observation of door area emissions
25 shall be made from a minimum distance of 25 feet from

1 Q. There are situations where you do charging
2 inspections and you observe more than four charges,
3 correct?

4 A. Yes.

5 Q. And for those, you don't follow the terms of the
6 source testing manual; is that fair?

7 A. I don't do compliance; I do inspections. So I
8 inspect four or five charges.

9 Q. Okay. So there are times you do more than four
10 inspections?

11 A. Four charges, correct.

12 Q. And then you don't make any compliance
13 determinations?

14 A. I total them up. I'll total up four. I'll total
15 up five. So I do do that. And if it is over an
16 allowable for five consecutive charges, I'll give them
17 that number; and if it's over for the four, I will give
18 them that number.

19 Q. So you make a decision on compliance based on
20 five charges on occasion?

21 A. From the information I was given, yes.

22 Q. Okay. And using five charges would be different
23 than four charges as stated in the source testing
24 manual; is that fair?
25 A. It is.

1 Q. I want to talk a little bit about the door
2 inspections. You don't follow any timing requirements
3 when you do your inspections of doors, correct?
4 A. I do not.
5 Q. You do record the start and stop time of each of
6 your door inspections, correct?
7 A. Yes.
8 Q. And sometimes an inspection of one side of the
9 battery is also called a traverse?
10 A. That's what they term it, yes.
11 Q. Okay. And if you wanted to see how long it took
12 you to do any inspection or traverse, you could look at
13 your inspection sheet from that day?
14 A. Yes.
15 Q. And there are times when equipment blocks your
16 view and you have to wait for it to move, correct?
17 A. Yes.
18 Q. And you have discretion to do this?
19 A. Yes.
20 Q. And if you decide to wait, you don't record
21 anywhere on any of your sheets how long it takes for
22 that equipment to move, correct?
23 A. It wasn't a requirement.
24 Q. Right. So you don't do it?
25 A. I do not.

1 Q. Are there times when -- let me back up. You are
2 familiar with Batteries 1, 2, and 3?
3 A. I am.
4 Q. And you're familiar with where they are located
5 at the Clairton plant?
6 A. Yes.
7 Q. Are there situations where you -- scratch that.
8 Do you start with the push side or the coke side
9 of those batteries when you do door inspections or does
10 it vary?
11 A. It varies.
12 Q. Okay. If you started with coke side on Batteries
13 1, 2 and 3, would you do door inspections of the coke
14 side of Battery 1, then Battery 2, then Battery 3 before
15 moving to the push side of those batteries?
16 A. I can, yes.
17 Q. And you do that on occasion?
18 A. I do.
19 Q. If you see a door leak, do you also do an opacity
20 reading?
21 A. I do.
22 Q. And for that, you would be using Method 9?
23 A. Correct.
24 Q. And that's the EPA Method 9 we looked at earlier?
25 A. Correct.

1 Q. Can you please look at Exhibit 67, which would be
2 in the second binder, page 2?
3 A. Am I done with this binder or no?
4 Q. Yes, for now. And I want to look at page 2 of
5 Exhibit 67. Are you familiar with page 2, Ms. Crowley?
6 A. Okay, so if I flip the page over, this is page 1
7 and this is page 2?
8 Q. They are numbered.
9 A. Oh, it is? Okay.
10 Q. It also says "ACHD 8385" on it.
11 A. 8385, okay, I'm with you.
12 Q. Do you see that page?
13 A. I do.
14 Q. Are you familiar with this document?
15 A. Yes.
16 Q. And this is the standard door inspection form
17 that you use for door inspections, correct?
18 A. Correct, correct.
19 Q. And every time you do a door inspection, you fill
20 out one of these sheets, correct?
21 A. Correct.
22 Q. Do you do both door visible emissions inspections
23 and opacity at the same time?
24 A. Not the exact same time, but at the time that I
25 see the leak and then the time that I see the opacity.

1 Q. Okay. So during the same traverse or the same
2 inspection, you would be looking for both visible
3 emissions and opacity?
4 A. Correct.
5 Q. And you would be noting both when you see visible
6 emissions and then also doing an opacity reading?
7 A. Correct.
8 Q. And so you would be following the method in the
9 source testing manual looking for visible emissions and
10 then using Method 9 to do the opacity reading?
11 A. Correct.
12 Q. Is it fair to say that if you were not doing
13 Method 9 opacity readings, it would take less time to do
14 the traverse or door inspection?
15 A. It would take less time if I wasn't doing
16 opacity?
17 Q. Correct.
18 A. I don't think it takes any more time.
19 Q. It doesn't take you any time to do opacity
20 readings?
21 A. It doesn't take more or less time. I mean, it's
22 about simultaneously. You see a door leak, then you do
23 an opacity.
24 Q. Okay. When you do an opacity reading, how long
25 does that take to do?

1 A. A blink. Within a --
 2 Q. Within a second?
 3 A. Within a second.
 4 Q. Okay. And when you do an opacity reading that
 5 takes about a second, do you then record it at that
 6 time?
 7 A. I do.
 8 Q. Okay. When you are doing opacity readings, is
 9 there a certain spot that you are looking at on the coke
 10 battery?
 11 A. Above the door area but below the top of the
 12 battery.
 13 Q. And why is it that you look there?
 14 A. That was per the source testing manual.
 15 Q. Okay. When you look at the inspection sheet that
 16 you filled out, if we focus on the sheet that is Exhibit
 17 67, page 2, you have information recorded for both the
 18 push side and the coke side, correct?
 19 A. Correct.
 20 Q. And we can tell from the sheet that you did
 21 inspections of the push side and you did inspections of
 22 the coke side, correct?
 23 A. Correct.
 24 Q. Let's focus on the coke side. On the far left
 25 column, there's a title "charge time." Can you explain

1 to us what that is?
 2 A. The leak that was recorded, that's what time that
 3 oven was charged.
 4 Q. And so you would only write down a charge time if
 5 you also observed a leak?
 6 A. On the high opacity.
 7 Q. Okay. And so how would we know if you observed a
 8 leak and there was no high opacity?
 9 A. If you go a little further down, there's one that
 10 does not have a charge time, that's not a high opacity.
 11 Q. And which one are you referring to? Is that B3?
 12 A. Correct.
 13 Q. And B2 would be the same situation?
 14 A. Correct.
 15 Q. And the other ones you would have read as a high-
 16 opacity door, which is why there's a charge time?
 17 A. Correct.
 18 Q. And for every leak or high-opacity reading you
 19 do, you write down the oven number; is that correct?
 20 A. Correct.
 21 Q. And every oven in a coke battery has a specific
 22 number?
 23 A. Correct.
 24 Q. And how wide approximately is an oven on a coke
 25 battery?

1 A. About 18 inches.
 2 Q. About 18 inches wide?
 3 A. Correct.
 4 Q. And so when you do your inspections, you are at
 5 least 25 feet away; is that correct?
 6 A. Correct.
 7 Q. And so when you are doing your inspections, you
 8 can see more than one coke oven at a time; is that fair?
 9 A. When I'm doing my inspection?
 10 Q. Yeah.
 11 A. I'm not looking for more than one at a time. I'm
 12 looking at each one.
 13 Q. Okay. And when you are doing your inspection for
 14 a particular coke oven that's 18 inches wide and you are
 15 standing 25 feet or more away, can you also see other
 16 coke ovens?
 17 A. If I'm looking at them, but I'm not looking at
 18 them. When I'm doing an inspection, I'm looking at a
 19 certain oven. Does that make sense?
 20 Q. Okay. So you are able to look solely at one
 21 18-inch coke oven from more than 25 feet away and not
 22 see the other ovens during your inspections?
 23 A. I'm not looking at the other ovens.
 24 Q. Are you able to not see them when you are doing
 25 your inspections?

1 A. Correct.
 2 Q. You have noted on this inspection form that we
 3 are looking at, it looks to be how many leaks were noted
 4 at 8:07?
 5 A. Eight.
 6 Q. And how many high-opacity readings did you find
 7 at 8:07?
 8 A. Eight.
 9 Q. And so in one minute --
 10 A. I'm sorry, one, two, three, four, five, six.
 11 Q. And so based on this form, you found eight high-
 12 opacity door exceedances in a minute?
 13 A. Yes.
 14 Q. And also eight door leaks in the same minute?
 15 A. Yes.
 16 Q. Is that because it takes just the blink of an eye
 17 to do an opacity reading?
 18 A. Yes.
 19 Q. The entire inspection on the coke side took you
 20 four minutes, correct?
 21 A. Yes.
 22 Q. And how many violations?
 23 A. Five minutes.
 24 Q. What's that?
 25 A. Five minutes.

1 Q. How many exceedances did you find in that five
2 minutes?
3 A. One if you are talking about the percentage of
4 leaking doors. Or are you talking about the opacity?
5 Q. Let's start with percentage of leaking doors. In
6 your entire five-minute inspection of the coke side, how
7 many exceedances did you find?
8 A. The opacity readings?
9 Q. Door leaks.
10 A. Fourteen.
11 Q. How many high-opacity exceedances did you find?
12 A. Twelve.
13 Q. And so in a five-minute inspection, you found a
14 total of 26 exceedances?
15 A. I don't understand where you are coming up with
16 26.
17 Q. Well, you said 14 door leaks, correct?
18 A. Correct.
19 Q. And then 12 high-opacity doors, correct?
20 A. Correct.
21 Q. And that's a total of 26 exceedances?
22 A. That's not total exceedances.
23 Q. What are those?
24 A. The high opacity would be over the allowable.
25 But the -- counting the door leaks is not counted as a

1 total number of exceedances.
2 Q. So that would be the total number of -- you found
3 14 total door leaks?
4 A. Correct.
5 Q. And 12 exceedances of the high-opacity door
6 standard?
7 A. Correct.
8 Q. The bottom right-hand corner, there is -- do you
9 see where it says "D equals door; C equals chuck door; M
10 equals miscellaneous"?
11 A. Correct.
12 Q. What are those referring to?
13 A. It's an area of the door, the door area.
14 Q. Okay. And what's the door referred to, which
15 part of the --
16 A. The vertical face.
17 Q. Okay. And what's the chuck door?
18 A. It's the area they put the leveling bar through
19 to level the oven on the pusher side.
20 Q. Is there any other piece of a coke oven door
21 other than the door and the chuck door?
22 A. Yeah, there's all kinds: the top of the door,
23 above the door, and the buckstays for the adjacent ovens
24 and then down to the bottom underneath the door.
25 Q. And what are all of those other parts of the

1 door, the coke oven door, that don't include the door
2 and chuck door? You mentioned a buckstay.
3 A. Yeah, brick work, buckstays, lentils, anything
4 other than the actual vertical face of the oven, I
5 believe.
6 Q. Okay. So other than buckstays, brick work and
7 lentils, are there anything else?
8 A. Nothing is coming to my mind right now.
9 Q. And would buckstays, brick work, and lentils be
10 considered miscellaneous on this form?
11 A. They can be.
12 Q. If you saw emissions from a door, a chuck door, a
13 buckstay, brick work or lentils, would you consider that
14 an emission that you would record on your sheet?
15 A. Yes.
16 Q. And how do you know to do that?
17 A. It's part of the procedure.
18 Q. Is that in the source testing manual?
19 A. Yes.
20 Q. Where is it in the source testing manual?
21 A. It might be in Article 21.
22 Q. We can look at the source --
23 A. I'm not remembering right now.
24 Q. Okay. You can refer back to the source testing
25 manual if it will help you.

1 A. Okay.
2 Q. That's Exhibit 22.
3 A. It's Article 21.
4 Q. So it is not in the source testing manual?
5 A. I do not see it.
6 Q. So the source testing manual doesn't tell you
7 that you can count visible emissions from doors, chuck
8 doors, buckstays, brick works, and lentils as part of
9 your inspection, correct?
10 A. That's just a guideline, that's not the rule. I
11 follow the regulation also.
12 Q. Okay. My question was, the source testing manual
13 doesn't say that you can count visible emissions from
14 doors, chuck doors, buckstays, brick works, and lentils
15 as visible emissions, correct?
16 A. It doesn't say that I can't either.
17 Q. And so who makes that decision?
18 A. The regulations.
19 Q. Your testimony is that Article 21 specifically
20 tells you that you can count visible emissions from
21 chuck doors, buckstays, brick work and lentils?
22 A. I believe that's what it says.
23 Q. Okay. Where is that?
24 A. In Article 21.
25 Q. Yeah, do you know what section?

1 A. I do not.
 2 Q. Okay. But you are sure it's in there?
 3 A. I can't answer for sure. So if I'm going to put
 4 that on record, the way I'm recollecting it right now,
 5 yes.
 6 Q. And you believe that's how you learned that these
 7 count as visible emissions for your inspections?
 8 A. The way I'm remembering it, yes.
 9 Q. And who trained you on that?
 10 A. I'm going to say a senior colleague that is no
 11 longer with us.
 12 Q. That was Mr. Denne?
 13 A. Yes.
 14 Q. That would have been around the 2008 timeframe?
 15 A. Correct.
 16 Q. So about 10 years ago?
 17 A. Yes.
 18 Q. The inspection sheet that we see for Exhibit 67,
 19 page 2, is that the whole inspection sheet you would do
 20 for a high-opacity door inspection?
 21 A. Yes.
 22 Q. Okay. So there's not some other sheet that you
 23 would also fill out for high-opacity doors?
 24 A. No.
 25 Q. And so you don't record anywhere when you are

1 doing the opacity reading that would show where you were
 2 standing?
 3 A. Twenty-five feet away in a coke yard, there is
 4 not really much room to move other than those.
 5 Q. But you don't record that anywhere in the form?
 6 A. I do not.
 7 Q. And you don't record where the sun position is at
 8 the time you are doing a reading, correct?
 9 A. Most of the time, the opacity reading is in a
 10 shadow anyway. The sun really didn't matter.
 11 Q. That's not what I was asking. You don't record
 12 the sun position in your inspection, correct?
 13 A. Correct.
 14 Q. And you don't record your distance from any plume
 15 that you observed, correct?
 16 A. Correct.
 17 Q. You don't observe -- or you don't record wind
 18 direction anywhere, correct?
 19 A. Correct.
 20 Q. You don't record wind speed?
 21 A. Correct.
 22 Q. You don't record a description of the sky
 23 condition?
 24 A. Correct.
 25 Q. You don't record what was in the background

1 behind any given plume?
 2 A. Correct.
 3 Q. You had mentioned observing Stage 2 alerts from
 4 the hill. Do you remember that testimony?
 5 A. I do.
 6 Q. That was about 10 years ago?
 7 A. Roughly, yes, yes.
 8 Q. Okay. And that would have been EM10 inspections?
 9 A. I don't know if they changed it over to 2.5 by
 10 then. I know when I was doing hillside observation, it
 11 was always they called them Stage 2 alerts.
 12 Q. And when these Stage 2 alert inspections were
 13 occurring about 10 years ago, were you working for
 14 Veolia or for the county?
 15 A. I was working for Veolia.
 16 Q. Okay. So it would have had to have been 10 years
 17 ago because you've been with the county for 10 years?
 18 A. Yeah, a little over 10 years ago now.
 19 Q. I wanted to -- actually, during your direct
 20 testimony, you had some discussion about pushing,
 21 correct?
 22 A. Yes.
 23 Q. And pushing is not an alleged violation of the
 24 enforcement order that is the subject of this appeal; is
 25 that right?

1 A. I'm not really sure what's all in the enforcement
 2 order.
 3 Q. Okay. I want to ask you about charging now. Can
 4 you look at Exhibit 63, page 68?
 5 MR. WILLIS: Which exhibit?
 6 MR. DAUSCH: 63, page 68.
 7 MR. WILLIS: Thank you.
 8 BY MR. DAUSCH:
 9 Q. Are you there?
 10 A. I am.
 11 Q. Are you familiar with this document?
 12 A. I am.
 13 Q. Is this a document that you would have completed
 14 for a charging inspection?
 15 A. Yes.
 16 Q. And this is the standard form that the county
 17 uses for charging inspections, correct?
 18 A. This is what we use, correct.
 19 Q. This is a charging inspection you did on Battery
 20 B for October 23rd, 2017?
 21 A. Correct.
 22 Q. You don't record anywhere on your charging
 23 inspection how far away you are standing during any
 24 given charge, correct?
 25 A. Correct.

1 Q. What are all of the points where you can observe
2 visible emission from a charge?

3 A. There's the ports. There's the actual larry
4 cars, hoppers, drop sleeves, anything from, I guess, the
5 machine, the lids. That's about it.

6 Q. Okay. And so if you saw visible emissions from
7 the ports, the hopper, the larry car, drop sleeve,
8 anything from the machine, from the lids, that would be
9 something that you would record during a charging
10 inspection?

11 A. Correct.

12 Q. And where did you learn that, that those specific
13 things count for a charging inspection?

14 A. That was from my training with the previous
15 inspector.

16 Q. Okay. That would have been Mr. Denne who taught
17 you that?

18 A. Correct.

19 Q. That information is not contained anywhere in the
20 source testing manual; is that fair?

21 A. That's fair.

22 Q. Okay. And that information wouldn't be contained
23 in Article 21 anywhere?

24 A. I believe it is, but I'm not 100 percent sure.

25 Q. Okay. Are you 100 percent sure that that

1 it was relayed somewhere along the line. And he would
2 note the time with the two-minute exemption. And they
3 came up with the flame or no flame meaning combusted or
4 non-combusted. It was saying it on that line.

5 And it was stated it didn't matter how long or
6 the duration, just the fact that if there was an
7 emissions or not.

8 And somebody, I believe it might have been the
9 environmental engineer, stated, I guess, to do a three
10 to five minute for diagnostics to see how long it was
11 going on maybe. And they were stating that typically
12 soaking doesn't last any longer than two to five minutes
13 because the ovens usually push before then.

14 Q. And so your recollection was that the reason the
15 form goes from zero to five minutes was for diagnostic
16 purposes?

17 A. I thought that's what was said.

18 Q. Okay. And you believe that that was Ed Peresie
19 who said that?

20 A. I thought it was Coleen that said that because
21 she is the one that would do the diagnostics with it to
22 see how long it was going on.

23 Q. What is her last name?

24 A. Davis.

25 Q. And who does she work for?

1 information is in any document?

2 A. I'm not 100 percent sure.

3 Q. You also do soaking inspections, correct?

4 A. I do.

5 Q. And can you look at Exhibit 64 on page 3?

6 A. I'm there.

7 Q. Exhibit 64 on page 3 is a soaking emissions
8 observation form that you filled out, correct?

9 A. Correct.

10 Q. And this is a standard form that the county uses
11 for observing soaking, correct?

12 A. Correct.

13 Q. Do you know who created this form?

14 A. I don't remember who actually created it, but I
15 remember it being spoken about and why it looks like --
16 and why it's done the way it is now.

17 Q. And who spoke about it?

18 A. I know there was a previous environmental
19 engineer, and I want to say from our office. I don't
20 recall who actually it was. It might have been Ed
21 Peresie, who is no longer here also.

22 Q. And what do you remember the discussions being
23 about this form?

24 A. I remember we were talking about soaking and the
25 two-minute exemption, or they were talking about it and

1 A. United States Steel.

2 Q. At the top of this document, there's a battery
3 that is identified, correct?

4 A. Correct.

5 Q. And this inspection would have occurred on
6 Battery B; is that correct?

7 A. Yes.

8 Q. And every time you would do a soaking emissions
9 observation, you would record the oven number; is that
10 correct?

11 A. Yes.

12 Q. And so we can see on this form that there were
13 three oven numbers that were identified: A22, A24 and
14 A26; is that correct?

15 A. Yes.

16 Q. And PS and CS underneath those would refer to
17 either the push side or the coke side, correct?

18 A. Correct.

19 Q. There is underneath that a cap opening time and
20 then also an observation start time. Do you see that?

21 A. Yes.

22 Q. And what is your understanding of the purpose for
23 those two rows?

24 A. There was a two-minute exemption to allow for any
25 kind of corrective action before the actual reading,

1 that was my understanding.

2 Q. Okay. And so you wait two minutes before you do
3 your reading of soaking?

4 A. Yes.

5 Q. And underneath that, there's a non-combusted
6 emissions max opacity. Can you tell us what that's for?

7 A. If there was a no flame, they were considering
8 that as non-combusted. And then the opacity would be
9 written for the max on that line.

10 Q. Okay. And if there was a flame, would there be
11 any opacity recorded on that line?

12 A. I'm going to say sometimes I did put it there
13 just so it would clarify and put everything in that same
14 area so somebody wouldn't have to look all over the
15 paper for it if it was on there.

16 Q. Okay. And is there any written guidance document
17 that you're aware of that tells you how to fill out that
18 part of the form with the flame or no flame?

19 A. I don't recall any.

20 Q. And was this something that you learned from your
21 training from Mr. Denne about 10 years ago?

22 A. No. Actually, prior to this being an actual reg,
23 I did a lot of test piloting for U.S. Steel when I was
24 with the contractor gathering information. And all the
25 information that was gathered and relayed, that is kind

1 of how they came up with everything.

2 Q. When you read opacity and you see opacity during
3 soaking and there's a flame, do you record it?

4 A. I do.

5 Q. And if you see opacity and there's no flame, do
6 you record it?

7 A. I do.

8 Q. And why do you do that?

9 A. That was part of the procedure with the -- with
10 filling out the document here.

11 Q. Okay. And do you know if anywhere in the source
12 testing manual it tells you whether or not flame or no
13 flame count as opacity?

14 A. No.

15 Q. Do you know if that's stated anywhere in Article
16 21?

17 A. I don't recall seeing that.

18 Q. And why is it that you do that?

19 A. I really don't know, honestly.

20 Q. Underneath the non-combusted emissions max
21 opacity, there's a row that says, "Method 9 readings."
22 Do you see that?

23 A. Yes.

24 Q. And that is EPA Method 9?

25 A. Yes.

1 Q. How do you know how many readings using EPA's
2 Method 9 you take on any given inspection?

3 A. I was trying to fill out the whole paperwork that
4 was, you know, showing the five minutes or unless I got
5 caught up into another part of the inspection. If it
6 was consistent with staying the same, that was what we
7 were discussing, was that it was allowable because it
8 was stated a long time ago with the other engineer that
9 they really wouldn't be soaking for any longer than
10 three minutes.

11 Q. Okay. So is it fair to say that your soaking
12 observations are never the same amount of time?

13 A. That's fair.

14 Q. Okay. And we can see on this form that one of
15 your soaking observations, it looks like you did
16 readings up until a minute and 30 seconds on the A24
17 oven?

18 A. Yes.

19 Q. And then on your reading for the A26 oven, you
20 only did readings for a minute; is that correct?

21 A. The recorded readings, yes.

22 Q. Okay. So the number of recorded readings varies,
23 depending on the particular soaking emissions
24 observation?

25 A. Well, it was more once there was an opacity over

1 the allowable, it's technically done and over with
2 anyways.

3 Q. Okay. So once you see an opacity over the
4 allowable limit, do you sometimes choose to stop your
5 inspection?

6 A. I can, or continue on. I mean, I don't mind
7 watching zeros all day. I mean, it's a good condition
8 seeing nothing coming out of the standpipe.

9 Q. Okay, and so it varies. Sometimes you will see
10 an exceedance and you will decide that that's enough and
11 you can stop your observation, or sometimes you will
12 continue even with zeros?

13 A. Correct.

14 Q. Okay. And how do you know when to make that
15 decision? Is that in the source testing manual?

16 A. No, it is not.

17 Q. Okay. Is that just something you do on your own?

18 A. It's just random, yes.

19 Q. Okay. This is the only sheet you use for soaking
20 emissions observations; is that correct?

21 A. Correct.

22 Q. And you don't record where you're standing
23 specifically for any different soaking observation?

24 A. No.

25 Q. You don't record the distance that you are from

1 any plume, correct?
 2 A. I do not.
 3 Q. You don't record wind speed anywhere?
 4 A. No.
 5 Q. You don't record a description of the sky
 6 condition?
 7 A. None.
 8 Q. You don't record what the background is behind
 9 the plume?
 10 A. Huh-uh (negative.)
 11 Q. No?
 12 A. Huh-uh (negative.)
 13 Q. I want to move to topside to talk about the
 14 inspections you do for topside. Can you look at Exhibit
 15 66 on page 1, please? Is this a topside inspection form
 16 that you filled out?
 17 A. Yes.
 18 Q. And is this a standard form?
 19 A. Yes.
 20 Q. This is a form that you would have filled out on
 21 January 17th, 2018?
 22 A. Yes.
 23 Q. And a topside inspection form, this includes an
 24 inspection of both lids and oftakes?
 25 A. Yes.

1 Q. Do you do those at the same time?
 2 A. Yes.
 3 Q. And why is that?
 4 A. It was a double-main system, and you are looking
 5 at the coke side with the coke side lids and the pusher
 6 side with the pusher side lids. That was accepted by
 7 U.S. Steel a long time ago before I was even an
 8 inspector.
 9 Q. And so you'd be observing lids that would be in
 10 the middle section of the battery and oftakes that are
 11 on both the coke side and the push side?
 12 A. No.
 13 Q. Okay, explain that to me.
 14 A. If I'm looking at the pusher side, I'm looking at
 15 the 1 and 2 lid. If I'm looking at the coke side, I'm
 16 looking at the 3 and 4 lid from the center of the
 17 battery.
 18 Q. Okay. And during one traverse down the entire
 19 battery, do you do both the push side and the coke side
 20 at the same time?
 21 A. No.
 22 Q. Okay. How does that work?
 23 A. If I'm walking from one end to the other, I'm
 24 looking at either the coke side or the pusher side.
 25 Q. Okay. And this form, does it show the entire

1 inspection that you did for both the push side and the
 2 coke side?
 3 A. Yes.
 4 Q. And so when you are doing a push-side inspection
 5 of oftakes, you are also doing half of a lid
 6 inspection?
 7 A. Correct.
 8 Q. And when you are doing an oftake inspection for
 9 the coke side, you are doing the other half of the lid
 10 inspection?
 11 A. Correct.
 12 Q. And who is it that taught you to do it that way?
 13 A. My previous senior inspector.
 14 Q. Mr. Denne?
 15 A. Correct.
 16 Q. Do you know if the source testing manual has any
 17 language that says that it's proper to do one side of
 18 oftakes and half of a lid inspection at the same time?
 19 A. I don't remember reading that anywhere.
 20 Q. Okay. Do you know of any written document
 21 anywhere that says that you can do that?
 22 A. I want to say 303 might, but I don't want to
 23 swear to that.
 24 Q. Okay. When you are doing a lid inspection, what
 25 is it that you're looking for?

1 A. For a leak.
 2 Q. And what areas are you looking at for a lid
 3 inspection?
 4 A. Just the lid area.
 5 Q. Just the circle where the lid sits?
 6 A. Correct.
 7 Q. And so you're only looking for visible emissions
 8 that would come out of that circle where the lid sits?
 9 A. Correct.
 10 Q. What about with respect to oftakes, what is it
 11 that you are looking for?
 12 A. Any leaks.
 13 Q. And where do you look on the oftakes?
 14 A. There's quite a few areas. There is the base.
 15 There is the piping. There is the flange. There is the
 16 slip joint, goosenecks, caps, various other areas.
 17 That's kind of what I'm remembering right now.
 18 Q. Okay, so I have written down that for oftakes,
 19 you look at: the base, the piping, the flange, the slip
 20 joints, the goosenecks and the caps. Anything else that
 21 you look at for oftake inspections?
 22 A. The piping.
 23 Q. Okay. Yeah, I had that. Anything else?
 24 A. I think that was it, but I'm not sure.
 25 Q. And where is it that you learn that those are

1 appropriate places to look for an offtake inspection?
 2 A. From my trainer.
 3 Q. Oh, from Mr. Denne?
 4 A. Correct.
 5 Q. About 10 years ago?
 6 A. Correct.
 7 Q. And do you know of any written document including
 8 the source testing manual that says you should be
 9 looking at the base, piping, slip joint, flange,
 10 goosenecks, and caps on an offtake inspection?
 11 A. I do not.
 12 Q. Do you know where Mr. Denne learned that?
 13 A. I would not know that.
 14 Q. Okay. The D on this form that says
 15 decarbonizing, is that for standpipe caps that are
 16 opened for decarbonizing?
 17 A. Correct.
 18 Q. And just like Mr. Denne taught you all of your
 19 inspection procedures about 10 years ago, did you in
 20 turn teach Mr. Downard his inspection procedures?
 21 A. I was one of the persons, yes.
 22 Q. Okay. And do you expect that he does what you
 23 taught him?
 24 A. I would think.
 25 Q. Okay. And during his training, did you watch and

1 observe Mr. Downard to make sure he was doing
 2 inspections similar to how you do them?
 3 A. Yes.
 4 Q. And did you make him work with you consistently
 5 until you were comfortable that he was doing inspections
 6 just like you were doing them?
 7 A. I did them until I was told to stop doing it.
 8 Q. Okay. Who told you to stop training Mr. Downard?
 9 A. He is no longer here either.
 10 Q. What's his name?
 11 A. Jim Thompson or Ed Peresie, one of the two.
 12 Q. Okay. At the time you were told to stop training
 13 Mr. Downard, were you comfortable that Mr. Downard knew
 14 how to do inspections the way you do them?
 15 A. I don't recall.
 16 Q. Okay. You aren't sure if your --
 17 A. I don't remember, honestly.
 18 Q. And if you were uncomfortable with Mr. Downard's
 19 level of training, would you have said that to somebody?
 20 A. I would think I would.
 21 Q. Yeah. Do you remember saying that to anybody?
 22 A. I don't recall.
 23 MR. DAUSCH: That's all I have.
 24 HEARING OFFICER SLATER: Any redirect, Mr.
 25 Willis?

1 MR. WILLIS: Yes, sir.
 2 REDIRECT EXAMINATION
 3 BY MR. WILLIS:
 4 Q. Ms. Crowley, words are very important in this
 5 litigation, so I want to make sure we are working with
 6 the same words and your understanding as to what those
 7 words mean.
 8 You mentioned earlier that you determined
 9 compliance under Chapter 109 of the source testing
 10 manual. Is it in your job description to determine the
 11 compliance of a facility with respect to any violations?
 12 A. No.
 13 Q. Okay. Are you just simply doing inspections or
 14 are you doing any calculations to determine whether or
 15 not an exceedance violates Article 21?
 16 A. No.
 17 Q. Okay. And correct me if I'm wrong, but with
 18 respect to opacity readings, you are not looking to see
 19 how dark a plume is; is that correct? You are looking
 20 to see what?
 21 A. The opacity reading.
 22 Q. Now, opacity, is that the ability to see through
 23 a plume?
 24 A. Correct.
 25 Q. So you're not really looking to see if it's a

1 dark plume necessarily; you are trying to see what's on
 2 the other side and measure the opacity based on that?
 3 A. Correct.
 4 Q. Okay. What is a backstay?
 5 A. Say that again.
 6 Q. A backstay, you mentioned a backstay. What is
 7 that?
 8 A. Buckstay.
 9 Q. I'm sorry, buckstay.
 10 A. Okay. You have a vertical face and then you have
 11 the adjacent buckstay. It's part of the door area.
 12 Q. And a lentil?
 13 A. Yeah, the lentils are the top, I believe, above
 14 the door area before it goes up into the top of the
 15 battery, if I remember right.
 16 Q. Would that be considered part of the door area?
 17 A. Correct.
 18 Q. And you mentioned some recollection as to Article
 19 21 and its requirements for inspection or observations
 20 around the door area?
 21 A. Correct.
 22 Q. I'm just going to show you this for -- to refresh
 23 your recollection. This would be Article 21, Section
 24 2105.21. Could you read this to yourself, Section B --
 25 or Subsection B?

1 HEARING OFFICER SLATER: I'm sorry, can you say
2 what the citation for that is?

3 MR. WILLIS: 2105.21, Subsection B.

4 HEARING OFFICER SLATER: Oh, okay.

5 BY MR. WILLIS:

6 Q. Did you read that?

7 A. Uh-huh (affirmative.)

8 Q. And I'm sorry, I'm going to hang over your
9 shoulder for a second because I want to be able to see
10 what you're looking at.

11 Now, is this your recollection as to the
12 requirements for visible emission standards with respect
13 to the door areas?

14 A. Yes.

15 Q. Is there a limitation for door area emissions?

16 A. No.

17 Q. Look to B3.

18 A. The percentage of leaking doors?

19 Q. Yes, ma'am.

20 A. Okay.

21 Q. Could you read that out loud?

22 A. For any of the following batteries at the top,
23 "At any time the visible emissions from more than eight
24 percent of the door area of the operating coke ovens in
25 such battery excluding the two-door area of the last

1 sequence which is not obstructed. The observer shall
2 continue this procedure along the entire length of the
3 battery for both sides and shall record the battery
4 identification, the battery side and oven door
5 identification number of each door area exhibiting
6 visible emissions. Before completing the traverse or
7 immediately thereafter, he shall attempt to re-observe
8 the obstructed doors. Compliance with this section
9 shall be calculated by application of the following
10 formula which excludes two door areas representing the
11 last oven charged from the numerator and obstructed door
12 area from the denominator."

13 Q. Okay, thank you. Do you adhere to that
14 section --

15 A. Yes.

16 Q. -- of the source testing manual?

17 A. Yes.

18 Q. And you mentioned that you did some test piloting
19 for U.S. Steel?

20 A. Yes.

21 Q. Can you explain what that means?

22 A. Prior to the soaking standards, I went out and I
23 observed people doing that procedure.

24 Q. What procedure?

25 A. Dampening off ovens and to see what the soaking

1 oven charged and any door area obstructed from view."

2 Q. Thank you. And with respect to Exhibit 22, if
3 you could go back to Chapter 109, it's in Volume 1.

4 A. Okay.

5 Q. If you could look to Section C?

6 A. Okay.

7 Q. And do you see the first standalone paragraph
8 under section C that says "doors"?

9 A. Yes.

10 Q. And that paragraph begins with the words,
11 "Observation of door area emissions..."

12 A. Yes.

13 Q. Could you read that second sentence, please?

14 A. "Each door area shall be observed and sequenced
15 for only that period necessary to determine whether or
16 not at the time there is visible emissions from any
17 point of the door area while..." and it continues on.

18 Q. Could you read the continued portion?

19 A. "...while the observer walks along the side of
20 the battery. If the observer's view of a door area is
21 more than momentarily obstructed as, for example, by
22 door machinery, pushing machinery, coke guide, Luther
23 truck or opaque steam plumes, he shall record the door
24 area obstructed and the nature of the obstruction and
25 continue on the observations with the next door area in

1 was or was not, to try to come up with a procedure. And
2 I wasn't coming up with the procedure, U.S. Steel was.
3 I was just collecting information.

4 Q. This is with your time with Veolia?

5 A. Correct.

6 Q. So you were doing this for Veolia who was doing
7 this for U.S. Steel?

8 A. Correct.

9 Q. Okay. You mentioned the soaking process taking
10 about three minutes; is that correct?

11 A. That's what I was told when they started this
12 procedure, and it would vary. But quite a few years
13 ago, that was pretty much how long it took. It took
14 roughly about three minutes from the time they dampened
15 it off, the two-minute exemption, until the time they
16 pushed. It was roughly about that.

17 Q. Is that still the case?

18 A. No.

19 Q. What's the difference now?

20 A. A lot of times, it is a lot longer.

21 Q. And you mentioned variability. The terms of
22 variability, are we talking hours or minutes?

23 A. It could be hours and it could be minutes.

24 Q. Okay. But that's based on their activity, not
25 with respect to your inspection?

1 A. Not me, it's their activity.
 2 Q. Okay. Have you heard in the past 10 years, while
 3 you were at the Allegheny County Health Department, have
 4 you heard of any complaints from U.S. Steel with respect
 5 to your particular inspections?
 6 A. None that I'm aware of, no.
 7 Q. Has anybody challenged your inspections from U.S.
 8 Steel?
 9 A. None that I know of, no.
 10 Q. And in the 10 years prior to that when you were
 11 with Veolia, did you hear of any discrepancies with
 12 respect to your inspections?
 13 A. None that I'm aware of.
 14 Q. Did any complaints come your way with respect to
 15 any inspections?
 16 A. No.
 17 Q. And you mentioned there was a period of time in
 18 which you were escorted by U.S. Steel employees and you
 19 indicate certain emissions that you saw with respect to
 20 the door areas?
 21 A. Yes.
 22 Q. Did they -- was there any dispute with respect to
 23 your observations at the time that you presented them to
 24 U.S. Steel?
 25 A. None that I'm aware of, no.

1 inspection forms and tell whether or not you did that?
 2 A. Yes.
 3 Q. The U tube on the C Battery, are you familiar
 4 with that?
 5 A. I know the term, yes.
 6 Q. Okay. Are you familiar with the actual U tube?
 7 A. Yes.
 8 Q. When you do a charging inspection, do you read
 9 emissions from the U tube?
 10 A. Yes.
 11 Q. And why is it that you do that?
 12 A. It's a point of emissions coming off of the
 13 charging.
 14 Q. Okay. And where -- go ahead.
 15 A. That's the assist oven.
 16 MR. DAUSCH: That's all I have.
 17 HEARING OFFICER SLATER: Any further questions,
 18 Mr. Willis?
 19 MR. WILLIS: Yes.
 20 REDIRECT EXAMINATION
 21 BY MR. WILLIS:
 22 Q. To your understanding, is the source testing
 23 manual a regulation?
 24 A. It is not.
 25 Q. To your understanding, Article 21 is a

1 MR. WILLIS: I have no further questions.
 2 HEARING OFFICER SLATER: Any recross, Mr. Dausch?
 3 MR. DAUSCH: Yes.
 4 RECROSS-EXAMINATION
 5 BY MR. DAUSCH:
 6 Q. Is it fair to say you don't always record the sun
 7 position on your forms when you are doing an opacity
 8 reading, correct?
 9 A. Correct.
 10 Q. Are you familiar with the U tube on the C
 11 Battery?
 12 A. I am. But can I back up to that sun position not
 13 being recorded?
 14 Q. Correct, yeah.
 15 A. I do write "sun" and "no sun." When I write
 16 "sun," I make a little picture with an arrow pointing
 17 away from that sun, meaning it is representative of the
 18 sun is behind me when I'm doing my readings. That's
 19 what that little indication on that picture, on that
 20 drawing means.
 21 Q. And do you do that on all the opacity readings
 22 that you take?
 23 A. I believe I do that for all my pushing and I
 24 believe I do that for my soaking also.
 25 Q. And we'd be able to look at any of your

1 regulation?
 2 A. It is.
 3 Q. And to your understanding, is Allegheny County
 4 bound to adhere to the source testing manual or to the
 5 regulation?
 6 A. To the regulation.
 7 Q. If there was a conflict between the source
 8 testing manual and Article 21, which would you defer to?
 9 A. Article 21.
 10 MR. WILLIS: I have no further questions
 11 HEARING OFFICER SLATER: Mr. Dausch, did you have
 12 any more questions?
 13 MR. DAUSCH: I think just maybe one more
 14 question.
 15 RECROSS-EXAMINATION
 16 BY MR. DAUSCH:
 17 Q. You mentioned in your testimony in response to
 18 Mr. Willis's question that your job description doesn't
 19 include determining compliance. Do you recall that
 20 testimony?
 21 A. I do inspections, yes. Is that what you're
 22 asking?
 23 Q. Did you testify that your job description doesn't
 24 include determining compliance?
 25 A. I'm going to say yes, but I don't know 100

1 percent if I can answer that.

2 Q. Do you have a written job description somewhere?

3 A. I do.

4 Q. Okay. And you're not sure what it says?

5 A. I can't recall at this second right now.

6 MR. DAUSCH: Okay, that's all I have.

7 HEARING OFFICER SLATER: Anything further?

8 MR. WILLIS: Nothing further.

9 HEARING OFFICER SLATER: Ms. Crowley, you may
10 step down.

11 MS. CROWLEY: Did you still want me to read
12 through these?

13 MR. WILLIS: Oh, yes, yeah. I know we have a
14 little time right here before lunch. I don't want to
15 just jump into the next witness before lunch, and she
16 has not finished her review.

17 Could we take that time just to have her finish
18 her review, indicate that what's there is basically the
19 inspection reports that she --

20 MR. DAUSCH: And your next witness is?

21 MR. WILLIS: That's going to be Keramida, Brian
22 Harrington.

23 MR. DAUSCH: So do you want to do our hour lunch
24 now and just come a little bit earlier? That way, Ms.
25 Crowley can finish her review.

1 A. Yes.

2 Q. Okay. Is that a representation of the
3 inspections for the quarter of the -- for the third
4 quarter of 2017, the fourth quarter of 2017, and the
5 first quarter of 2018?

6 A. Yes.

7 MR. WILLIS: Okay, thank you very much.

8 HEARING OFFICER SLATER: Anything else?

9 MR. DAUSCH: No objection to that exhibit.

10 HEARING OFFICER SLATER: All right. I want to
11 note for the record again that Exhibit ACHD 25 is
12 admitted.

13 MR. WILLIS: Can we go off the record for one
14 minute?

15 HEARING OFFICER SLATER: Yes, let's go off the
16 record.

17 (An off-the-record discussion was held.)

18 HEARING OFFICER SLATER: Let's go back on the
19 record then.

20 MR. WILLIS: Okay. The County would call Brian
21 Harrington to testify, please.

22 BRIAN HARRINGTON, called as a witness, being duly
23 sworn by the court reporter, testified as follows:

24 DIRECT EXAMINATION

25 BY MR. WILLIS:

1 HEARING OFFICER SLATER: That's fine with me.

2 MR. DAUSCH: Instead of doing 20 minutes of a
3 witness.

4 MR. WILLIS: Okay.

5 MR. DAUSCH: Does that work?

6 MR. WILLIS: That works.

7 HEARING OFFICER SLATER: So let's take lunch and
8 come back at about 12:40.

9 MR. WILLIS: Okay.

10 (The hearing recessed at 11:38 a.m. and
11 reconvened at 12:43 p.m.)

12 HEARING OFFICER SLATER: Mr. Willis, did you need
13 to call Ms. Crowley back up?

14 MR. WILLIS: Yes, just for a moment.

15 HEARING OFFICER SLATER: Okay.

16 ANGELA CROWLEY, recalled as a witness, being
17 previously sworn, testified as follows:

18 REDIRECT EXAMINATION (continued)

19 BY MR. WILLIS:

20 Q. Okay, Ms. Crowley, you've had ample opportunity
21 to review what we've described as Exhibit 25, haven't
22 you?

23 A. Yes.

24 Q. And you managed to look at basically every sheet
25 of paper?

1 Q. Good morning -- or good afternoon, Mr.
2 Harrington. How are you doing?

3 A. Good. How about you?

4 Q. Pretty good. Could you spell your last name for
5 the record, please?

6 A. H-A-R-R-I-N-G-T-O-N.

7 Q. Could you tell me what your current occupation
8 is?

9 A. I'm the Vice President at Keramida, the Program
10 Manager for the 303 Program.

11 Q. I'm sorry, could you repeat that?

12 A. Program Manager for the 303 Program.

13 Q. I want to get a little bit of background
14 information from you, if you don't mind.

15 Where do you live currently?

16 A. Indianapolis.

17 Q. Indiana?

18 A. Yeah.

19 Q. Is that where your company is located?

20 A. Our headquarters are there, yes.

21 Q. Did you go to high school?

22 A. I went to high school, yes.

23 Q. Did you graduate?

24 A. Yes.

25 Q. Where did you graduate from high school?

1 A. Decatur Central High School.
 2 Q. Where is that located?
 3 A. Indianapolis.
 4 Q. Did you do any formal education after that?
 5 A. Yeah.
 6 Q. Where did you go?
 7 A. Indiana State University.
 8 Q. What did you major in?
 9 A. Environmental science.
 10 Q. Did you graduate with that?
 11 A. Yes.
 12 Q. Any formal education after that?
 13 A. Just -- no formal education besides training
 14 sessions here and there for whatever services we were
 15 offering, whether it would be the 303 Program or Method
 16 9.
 17 Q. I see. Are you certified as a Method 9
 18 inspector?
 19 A. Not currently.
 20 Q. Have you ever been?
 21 A. I have.
 22 Q. When was the last time you were certified?
 23 A. This is purely a guess, but about 15 years ago.
 24 Q. Okay. How long were you certified?
 25 A. About five.

1 Q. With respect to 303, are you currently certified?
 2 A. I am.
 3 Q. How long have you been certified for 303?
 4 A. Since 1995.
 5 Q. Okay. And in your current role with Keramida,
 6 what is your job description, if you will?
 7 A. For the company generally or for this project?
 8 Q. For the company generally and then I will ask you
 9 with respect to this.
 10 A. Okay. So I'm the vice president of the land
 11 services division which focuses on due diligence,
 12 investigation, remediation, any kind of asbestos/lead
 13 issues. That's a good summary. But I'm more or less
 14 the operations of the group.
 15 Q. Okay. And with respect to your contract with the
 16 county, what is your role?
 17 A. I am the principal Program Manager.
 18 Q. Okay. Are you the principal point of contact
 19 with Keramida and the county?
 20 A. From a contractual standpoint, probably, yes.
 21 But from a day-to-day operation, my project manager
 22 below me is.
 23 Q. And who is your project manager?
 24 A. Chuck Swallow.
 25 Q. And with respect to the county's contract with

1 Keramida, what is the object of that contractual
 2 arrangement? What is your job duty with respect to that
 3 contract?
 4 A. Conduct 303 inspections at the Clairton Works
 5 facility for the 10 batteries for a period of five
 6 years.
 7 Q. Five years beginning when?
 8 A. We started November 1st of '16, but we had a few
 9 days before that that we started early. So the contract
 10 is, let's say, October of 28th, I think, of '16.
 11 Q. Okay. Had you had any sort of contract for
 12 Method 303 observations prior to the contract with the
 13 county?
 14 A. Yes, yep.
 15 Q. Could you tell me who you had those contracts
 16 with?
 17 A. We had in '95, which is the reason I got trained
 18 initially, we had a contract that we were pursuing for
 19 Indianapolis at the Citizens Gas and Coke Utility. So
 20 we were the contractor for the City of Indianapolis.
 21 And then when the State of Indiana took over the
 22 program, they took that site over from the City of
 23 Indianapolis, and there are two facilities up north
 24 which used to be the coke plants of U.S. Steel Gary
 25 Works and then ArcelorMittal Steel up in Burns Harbor,

1 Indiana.
 2 Q. So Keramida has extensive --
 3 A. I have one to add, sorry.
 4 Q. I'm sorry.
 5 A. Ashland, Kentucky, AK Steel, we inspected there
 6 for about a year.
 7 Q. The AK Steel, was that a coke facility as well?
 8 A. Yes.
 9 Q. So you've done inspections for three coke
 10 facilities prior to Clairton Works?
 11 A. Yes. And then after Clairton Works -- I
 12 apologize, I failed to mention -- we got a contract with
 13 the State of Pennsylvania for Monessen which was, I
 14 think, May of this year it started.
 15 Q. Now, the Monessen facility, is that the
 16 ArcelorMittal?
 17 A. Yes.
 18 Q. I see. You have employees who are Method 303
 19 inspectors; is that correct?
 20 A. That's correct.
 21 Q. And they do the inspections at Clairton Coke
 22 Works, correct?
 23 A. Yes.
 24 Q. Could you explain what those individuals do for
 25 you in terms of their inspections?

1 A. Generally, or...

2 Q. Generally, please.

3 A. Okay. So generally, they are doing the coke
4 303 -- Method 303 inspections as the method and as they
5 were trained. And they were reporting -- they are using
6 an electronic tablet, and we got a web-based portal that
7 they enter the data during their inspections. So they
8 are inspecting the topside, the lids and offtakes, they
9 are inspecting the doors, and they are doing the
10 charging observations.

11 Q. Okay. And you, as their employer, ensure that
12 they are certified under Method 303?

13 A. Yes.

14 Q. And you mentioned something about a tablet.
15 Could you explain how their observations are recorded?

16 A. Yeah. So with having 10 batteries at the
17 facility, we try to eliminate any manual entries of data
18 as best as we could, and we felt, like, managing 10
19 batteries would be best on an electronic perspective.

20 So we had a custom-built web portal, which we
21 call K-Port, that's, in some senses, general. It covers
22 more batteries. And in some sense, it's specific to
23 batteries.

24 But they, you know -- the start -- there's
25 automatic things in the system. But from an inspector's

1 position, every midnight, all 10 batteries show up in
2 our system.

3 So all 10 batteries show up. They inspect, when
4 they are using the program, the battery, the date, and
5 all of that populates. They have to enter a start and
6 stop time of the traverses, and that's an auto picker.
7 Basically, you hit the button and it puts the actual
8 time it's recording.

9 When they are entering data, it's going to the
10 cloud, the portal. It's not on the tablet.

11 So they do use their stopwatch for the manual
12 entry of the traverse time, of the actual traverse time.
13 The allowable traverse time is automatically populated
14 based on whatever leaks they have and their actual time
15 and the amount of leaks they have, and their actual time
16 is compared.

17 Q. Are your inspectors inspecting all 10 batteries
18 every day?

19 A. My group of inspectors are, but not one person,
20 no.

21 Q. I understand.

22 A. Okay.

23 Q. But the entire group, as a collection, will
24 inspect all 10 batteries in a 24-hour period?

25 A. That's correct.

1 Q. Okay. And once that data is sent back to -- is
2 it going to headquarters?

3 A. The data goes into the -- there's no paperwork
4 that -- they are not writing anything on paperwork
5 during the inspection, unless the system is down, which
6 it has occurred occasionally, not often, not very often
7 at all. But it goes to the cloud, and then they don't
8 see the data after that.

9 But the QAC process for them is after they do
10 their inspection, they go back to our trailer and they
11 do a review of what they have entered, 'cause we have
12 the K-Ports in kind of three different buckets.
13 It's in process, meaning it either hasn't been
14 started or they are -- it's in process, actual in
15 process.

16 And when they get done with their inspection and
17 when they go to the trailer, they will do a cursory
18 review of that in-process data; and then if they are
19 comfortable and if they felt like -- if all the data is
20 entered, they don't see anything that's not correct,
21 then they will send it to end review, and then that's
22 when Chuck Swallow, as the IM, he reviews them daily,
23 does a spot-check review, and makes sure all of the data
24 is entered correctly.

25 There's some -- a lot of safeguards, but there

1 are a few things that you really -- we have to pay
2 attention to. It's on a timing perspective. There's a
3 -- you can put a letter in there, stuff like that.
4 That's the stuff that he finds.

5 And then if there are issues, he will send it
6 back to -- we can -- K-Port will send back in to end
7 process, and he contacts the inspector and they can --
8 they don't have to use the tablet, they can also be at
9 their home. They can also get on their computer and get
10 onto the portal and correct that. And then whoever
11 changed it last, their name is what populates onto the
12 report.

13 So that's how we -- it is a QC thing and quality
14 thing because we don't want others changing the data.
15 So whoever has made the final entry is who is on the
16 report

17 Q. Okay, I see. Is the entry of that data
18 transmitted to the cloud at the end of a shift?

19 A. And I'm not an IT person, but I believe it's
20 communicating with the cloud as they're entering data.
21 I think there's -- when they hit the save, I think there
22 is a save button, when that is saved, it communicates
23 with the portal and it's downloading up there.

24 It's nothing that we have to plug into a computer
25 to download and it's -- I believe as a course of the

1 inspection, as we are hitting the save button, that data
2 is going to the portal.

3 Q. So at the conclusion of any particular inspection
4 where they see an exceedance that they record, they put
5 it into the tablet and then that is automatically sent
6 to the cloud; is that correct?

7 A. Well, I'm not sure what you mean by "exceedance."

8 Q. Whenever there's a visible emission observation
9 that's noted on their report, once it's noted in the
10 report, is it automatically sent to the cloud?

11 A. After they hit the save button, yes.

12 Q. Okay. Is there an occasion which, to your
13 understanding, they would not hit that save button until
14 the end of a shift, or...

15 A. There are times, I believe, that -- we have
16 different cell service, because it's used by the LTE
17 service -- that there are certain areas of the plant
18 where we couldn't hit save. I know for a fact that in
19 Burns Harbor, Indiana, that was the case, that we
20 couldn't -- if we hit save, you could lose the data. So
21 we know the areas of the plant that don't save it until
22 you get to where the communication is better.

23 Q. Okay. Do you have any loss data with respect to
24 any of the inspection reports for U.S. Steel Clairton;
25 have you?

1 A. He approves it and it goes into the last bucket,
2 which is "valid." When it hits the valid stage, it
3 populates into some downloadable, viewable daily forms,
4 and that is generally in almost all cases done by the
5 end of the day.

6 There has been occasion, specifically initially,
7 that may have been done the next day, but he generally
8 stays on top of it and approves them and validates them
9 the same day we do the inspection.

10 So when they are valid, they are -- I provided
11 the county representatives, U.S. Steel representatives
12 the ability to go and view, download and print the daily
13 forms, the official daily forms from our K-Port. So
14 there's access to do that within 24 hours.

15 Then the data is also put into the spreadsheets
16 that we don't manage on a daily basis or a weekly basis.
17 It's a monthly basis.

18 Q. Okay. So Mr. Swallow is tasked with reviewing
19 the inspection reports on a daily basis and approving
20 them?

21 A. That's correct.

22 Q. And he does this every day?

23 A. He does it every day.

24 Q. And how many -- I know that ACHD inspectors are
25 there five days a week. Are your inspectors there also

1 A. We have not. I believe some of the inspectors,
2 if not all of the inspectors, are taking notes too in
3 case there are issues. So I think there have been some.

4 I should correct that. I think there have been
5 issues that there was data that didn't save, so that's
6 why they take some notes.

7 Q. Okay. And you mentioned that the tablets are
8 serviced by LTE?

9 A. Yes.

10 Q. That is a cellular service?

11 A. That's a cellular service.

12 Q. So they don't need to be connected to a Wi-Fi
13 network?

14 A. No.

15 Q. They don't need to be plugged into any sort of
16 cord in the trailer?

17 A. Nope, nope.

18 Q. Okay. Once that data makes its way to the cloud,
19 what happens to it then?

20 A. So when it goes into the cloud, and they actually
21 hit the end review, and then that's when Chuck Swallow
22 does the Q&QC that he does like I briefly described
23 earlier. And once he's fine with that, he will hit save
24 or he will hit the --

25 Q. Does --

1 five days a week?

2 A. Yes. Or no, seven days, sorry.

3 Q. Seven days a week?

4 A. Yep, seven days a week, 365.

5 Q. 365?

6 A. Uh-huh (affirmative.)

7 Q. No holidays, or you are still there for the
8 holidays?

9 A. Still there.

10 Q. Okay. You mentioned that this data is also sent
11 to U.S. Steel. Could you explain how that information
12 is conveyed to U.S. Steel?

13 A. So the county and U.S. Steel has access to view,
14 download, print. They also have a system that they were
15 using prior to Karamida coming on that our system didn't
16 communicate with.

17 So when we changed, they had trouble. You know,
18 it was a lot of work for them. So we communicated, and
19 they were interested in upgrading our system so they can
20 get data quicker and -- maybe -- I don't know if
21 "quicker" would be accurate, but at least get the data
22 that can be downloaded into their system so there were
23 no manual entries.

24 I don't know how they were managing their data,
25 but the system was modified. So every time that we --

1 my inspectors send them to end review, they get text
2 messages or e-mails -- sorry, they get e-mails of the
3 data. It is not for the whole day. It's every time a
4 battery gets to -- sent to end review, which are
5 technically preliminary because they haven't been
6 reviewed, but they get that data. My understanding on
7 how their system works, they get the data as soon as my
8 inspector sends it into review.

9 Q. And you are referring to U.S. Steel as the "they"
10 who receives this information?

11 A. Yes. I think the county gets the e-mail as well.
12 I don't think the county uses it.

13 Q. Now, you were here earlier to hear Ms. Crowley's
14 testimony, that she presents the escort with her
15 inspection data.

16 A. Yes.

17 Q. Does Keramida do the same thing?

18 A. Keramida does -- we don't have an escort.
19 Mostly, generally, we do not have an escort. But they
20 do provide the snapshot results to the battery foreman.

21 Q. On a daily basis?

22 A. On a daily basis.

23 Q. So it's fair to say that at the end of any day,
24 U.S. Steel has an idea of how many visible emissions,
25 observations there were?

1 A. Yes.

2 Q. And that any potential leaks that were caught by
3 Keramida, they would know that?

4 A. That's correct.

5 Q. And with respect to Battery B on the coke side,
6 you do inspections on that side?

7 A. We do.

8 Q. Okay. And so at the end of any particular day,
9 they would have a number of leaks with respect to
10 Battery B on the coke side?

11 A. That's correct.

12 Q. Okay. Now, I don't know if you were here
13 yesterday. Were you here yesterday?

14 A. I was here for part of the day.

15 Q. Part of the day?

16 A. Yep.

17 Q. You may recall that Dean DeLuca had testified
18 with respect to certain errors that occurred over the
19 past year with respect to the inspections.

20 A. Uh-huh (affirmative.)

21 Q. Could you provide your insight as to what
22 happened with those errors, how they occurred?

23 A. So we went back and forth on how we were
24 presenting the SIP calculations. Once we came to the
25 final decision on how we were going to present it,

1 because some of the confusion was the Article 21, how I
2 read the Article 21 wasn't -- I don't believe it was
3 from how the county and/or U.S. Steel either normally
4 historically saw it.

5 So we went back and forth, and finally, we were
6 told to delete or subtract the two leaks -- two leaks
7 from each battery and the two doors observed on each
8 battery with the exception of Battery B.

9 Q. So the --

10 A. Sorry.

11 Q. Go ahead.

12 A. So the error occurred -- after that was decided,
13 Battery 15 and 20, there were -- we take our data from
14 K-Port to portal and that spreadsheet I talked about and
15 we down -- at the end of the month, we will download
16 that into our master -- we call it a master spreadsheet
17 that we use to generate the report, and it's just an
18 Excel sheet that's got a lot of formulas.

19 So the error on 15 and 20 occurred when two of
20 those formulas -- one formula on each of the sheets did
21 not get changed. So once we identified that, we
22 notified Mr. DeLuca and he had me reissue the reports.

23 Q. Okay, just --

24 A. And then --

25 Q. Sorry. Just to be clear, the errors that you saw

1 were not errors in actual observations?

2 A. No, no. It's specifically errors of -- data
3 management errors at our office on the presentation of
4 the monthly reports.

5 I've never been notified that we've had an error
6 on our daily entries. No one has questioned our data
7 that goes to the cloud on a daily basis in our daily
8 forms.

9 Q. I see. And just to be clear, your company was
10 retained to do observations, correct?

11 A. Yes.

12 Q. Your company was not retained to determine
13 compliance?

14 A. We're not -- we weren't contacted to do
15 compliance. We are contracted to present a report that
16 evaluates the percentages to the standards, and that's
17 what we do.

18 Q. Okay. I'm going to show you a document here.
19 This is going to be ACHD 26. Do you recognize this
20 document? And I would note that there's an e-mail and
21 an attachment to that.

22 A. This is -- the whole document refers to the 26?

23 Q. Yes.

24 A. Exhibit 26, okay. Yep, there's an e-mail.

25 Q. And what does this e-mail and the attached

1 document refer to, please?

2 A. Oh, it's an e-mail to the county from me when we
3 were -- I had developed a QAAP, quality assurance auto
4 program, and we were missing the most recent
5 certifications covering the period for two of my
6 inspectors. So I had reached out to get a copy of
7 those.

8 Q. And you managed to get copies of those
9 certifications?

10 A. Yep.

11 Q. Are we talking about 303 certifications?

12 A. 303 certifications.

13 Q. And the attached document which is titled the
14 "quality assurance audit program," --

15 A. Uh-huh (affirmative.)

16 Q. -- could you describe this document and its
17 purpose?

18 A. This is basically how it sounds. It's a program
19 and -- a plan program that provides a system for quality
20 assurance and quality control of our inspections.

21 Q. I'm sorry. You would agree that the purpose of
22 this document is to demonstrate that there is some
23 quality assurance with respect to your inspections and
24 the results from those inspections?

25 A. Yes.

1 third-party auditor, which was Mr. Denne. We contracted
2 with him to do audits on all of our inspectors, roughly
3 two audits per inspector per year. So it was, you know,
4 roughly 10 audits a year on our inspectors.

5 So they are getting certified once a year by --
6 whether it's an initial or third year or interim of just
7 taking tests, but they are also getting audited a couple
8 times a year from a -- you know, a panel member, Beryl
9 Denne.

10 Q. Okay. And correct me if I'm wrong, but this is
11 all to ensure the quality of the data that's being
12 presented to U.S. Steel and to the Allegheny County
13 Health Department?

14 A. Yeah, for the county, U.S. Steel, and for me.

15 Q. For you as well?

16 A. Yeah.

17 Q. And why for you?

18 A. 'Cause the company is responsible for what we are
19 generating from a data perspective and I just want to --
20 I try to do what I can to the best of my ability to
21 eliminate mistakes, and I feel like having an audit in
22 place of our inspectors by a third party at that time
23 -- now he's one of our employees at a different
24 facility, he doesn't do U.S. Steel's facility -- it just
25 added a layer that's not required that we've had it

1 Q. Okay. Could you describe that process?

2 A. So from -- I talked about a little bit of the
3 recording QAQC about the system -- which is not in
4 here -- but the system has the safeguards to eliminate
5 mistakes. Then the inspector does their review before
6 they send it to final, and then we have the project
7 manager doing another set of reviews, and then it's
8 finalized.

9 And also from a method, the procedure of
10 collecting the data in the field, we have -- you know,
11 it talks about what training they need. Any new
12 inspector that we bring on is required to have the 303
13 prerequisites, and they are listed in the 303.

14 We also -- and part of that training is a 12-hour
15 battery experience. We don't put anybody on a battery
16 to do an inspection with nearly 12 hours and the
17 training of 303 class. We -- they go through with our
18 inspectors for multiple days.

19 I mean, I don't know how many. I'm sure it
20 varies, but it's until we have a comfort level that they
21 know what they are doing and they know our K-Port
22 system. That's when we approve them to do inspections
23 on their own.

24 And then lastly, from a field perspective, we
25 have a -- until we got the Monessen contract, it was a

1 included in all of our programs.

2 Q. I see. And now that this QAAP program has been
3 implemented, have you seen any success in terms of the
4 quality of the data that is being output to the
5 interested parties?

6 A. Well, I can't specifically state that I've seen
7 any changes, but we've started it from day one. So I
8 don't have any knowledge of how the previous inspectors
9 or two of my -- three of my inspectors worked for the
10 previous consultant. So I don't know what their
11 operation was during that time.

12 But we've started this from the onset. So I'm
13 comfortable that it provides a system to get the best
14 quality inspections in a day.

15 Q. I see. And you mentioned you had a couple of
16 inspectors who worked for the previous contractor?

17 A. Yeah.

18 Q. Would that be Veolia?

19 A. Veolia, yes.

20 Q. Okay. Do you know how long those two inspectors
21 had been doing inspections at Clairton Coke Works?

22 A. Between four and five years for all -- there were
23 three of them, so all three of them.

24 Q. Who are those inspectors?

25 A. Walt Greenswald, Ed Cherepko, and Donnie Haines.

1 Q. Okay. If you could turn to Exhibit 15 in U.S.

2 Steel's Volume 1?

3 A. All right.

4 Q. Do you see that e-mail at the bottom?

5 A. Yes.

6 Q. Is that your e-mail?

7 A. Yes.

8 Q. Now, again, I think you had testified earlier,
9 just a moment ago, that your firm does not determine
10 compliance; is that correct?

11 A. We -- I think that's correct on how you've stated
12 it. We do compare it on our monthly reports to the
13 standards, but we just report it.

14 Q. You just report it?

15 A. Yeah.

16 Q. Which basically, you do the inspections and
17 report the results of those inspections?

18 A. Correct.

19 Q. Okay. You're not making any determinations as to
20 whether or not any particular penalty is appropriate?

21 A. No, we do not.

22 Q. Okay.

23 MR. WILLIS: Any objection to ACHD 26?

24 MR. DAUSCH: 26 is the e-mail that includes the
25 quality insurance and audit program?

1 communicate -- or to send data via the e-mails that
2 would be compatible with their system, with U.S. Steel's
3 system. It's talking about some testing that we were
4 doing.

5 Q. And what would the system allow in terms of data
6 transmission to U.S. Steel? What was the goal?

7 A. The goal was to get data that is -- that U.S.
8 Steel can manage into their system. Basically, I don't
9 know what the process is, but it made a more clean way
10 of taking our data and getting it into their system,
11 that they use to manage their -- I guess their internal
12 complaint status and whatever they refer to that as.

13 So it's more of a -- more real time and more -- probably
14 a lot less work for them.

15 Q. Okay, that's kind of what I was trying to
16 understand. This process that you've developed for U.S.
17 Steel would allow a more real-time access to inspection
18 data?

19 A. Yeah. So as soon as it's -- my inspector
20 approves his work and sends it in to end review, they
21 get an e-mail, I believe it's e-mail, that they are --
22 that is usable for -- that they can use in their
23 internal system.

24 Q. Okay. And the point of transmission is the
25 simultaneous transmission to Chuck Swallow for his

1 MR. WILLIS: Correct.

2 MR. DAUSCH: No objection.

3 HEARING OFFICER SLATER: A26 is admitted.

4 BY MR. WILLIS:

5 Q. The next document is going to be ACHD 27. And in
6 particular, if you would look to the Bates label 14591?

7 A. Yes.

8 Q. In the middle of that page, it looks like there
9 is an e-mail from you; is that correct?

10 A. Yes.

11 Q. Who is it sent to?

12 A. To Jonelle Scheetz, Dean DeLuca and our software
13 company, LaVon Johnson.

14 Q. Who is Jonelle Scheetz?

15 A. She's our contact at U.S. Steel.

16 Q. Okay. And what is this e-mail about? What are
17 we discussing here?

18 A. Let me read it real quick.

19 Q. Sure.

20 A. Are you talking about -- is it the top one and/or
21 both of them, because it looks like there are two?

22 Q. There are two. If you could read both of them
23 from you.

24 A. They are both covering the upgrades to our
25 custom-built software to allow our software to

1 review?

2 A. Yeah. So it's a different format. Chuck, when
3 he sends the end review, it's in that portal still.
4 When data goes to U.S. Steel, it's in an e-mail format,
5 maybe Excel. I don't know if it is -- what program is
6 used, but it's something they can -- they are able to
7 download into their system.

8 Q. If you were to send this data to the county,
9 would it be in PDF format?

10 A. No. Actually, the county does -- I think Mr.
11 DeLuca gets an e-mail, I think it's only him, but it
12 might be others, gets an e-mail of the same, I believe,
13 the same file that goes to U.S. Steel, just so our
14 system is giving both parties the same data.

15 Q. So basically, both parties are getting
16 fundamentally real-time data as to any visible emission
17 observations that are made by Keramida?

18 A. That's correct.

19 Q. Okay.

20 MR. WILLIS: That's all I have.

21 HEARING OFFICER SLATER: Mr. Dausch?

22 Oh, any objection to the admission of A27?

23 MR. DAUSCH: 27?

24 HEARING OFFICER SLATER: ACHD 27.

25 MR. DAUSCH: No objection.

1 HEARING OFFICER SLATER: Did you want to move for
2 the admission of it?

3 MR. WILLIS: Well, I would move for the admission
4 of it, yes.

5 HEARING OFFICER SLATER: Okay, A27 is admitted.

6 MR. WILLIS: Thank you.

7 CROSS-EXAMINATION

8 BY MR. DAUSCH:

9 Q. Mr. Harrington, Keramida is a private company?

10 A. Keramida is a private company.

11 Q. And all of the inspectors that you employ are
12 Method 303 certified?

13 A. No, just the ones that work at -- for the --
14 doing the 303 inspections are 303 certified, yes.

15 Q. Okay. So all of the inspectors that you employ
16 at Clairton to do the 303 inspections are certified?

17 A. That's correct.

18 Q. And you make sure they are certified before you
19 do any inspections?

20 A. That's correct.

21 Q. And because they are following Method 303, they
22 have to follow the procedures of Method 303?

23 A. That's correct.

24 Q. It is mandatory?

25 A. Yes.

1 Q. Okay. And so it's not Keramida's intent, as a
2 private company, to make any compliance or violation
3 determinations that would affect U.S. Steel?

4 A. That's fair to say, yes.

5 Q. You would expect that the county would be doing
6 that work?

7 A. Yes.

8 Q. The county didn't provide Keramida with any
9 training on determining compliance and following the
10 source testing manual; is that fair?

11 A. I haven't seen the source testing manual.

12 Q. Right. And so there was no training provided by
13 the county on the source testing manual?

14 A. That's correct.

15 Q. Can you look at Exhibit 26, please?

16 A. Okay.

17 Q. And this is an audit program document that was
18 sent to Mr. Dean DeLuca at the Allegheny County Health
19 Department?

20 A. Yes.

21 Q. Can you look, sir, at page ACHD14078?

22 A. Yes.

23 Q. And do you see at the top of the page, there's a
24 paragraph?

25 A. Uh-huh (affirmative.)

1 Q. Your inspectors can't deviate from Method 303?

2 A. That's correct.

3 Q. They can't pick and choose which sections of
4 Method 303 they want to follow on any given day?

5 A. That's correct.

6 Q. They are audited to make sure they are following
7 Method 303?

8 A. That's correct.

9 Q. You had mentioned that Keramida was not
10 contracted for compliance; is that correct?

11 A. That's correct.

12 Q. And it wasn't contracted to determine whether or
13 not there were violations on any given day?

14 A. That's correct.

15 Q. Your understanding is it would be inappropriate
16 for a private company to make those kind of
17 determinations?

18 A. From a -- again, we compare the data in our
19 spreadsheets to the standards, so there is that
20 information in our final reports, but it's just a -- you
21 know, we do have a sheet that says, "SIP exceedance
22 summary."

23 So we compare it and provide that information on
24 that sheet. But beyond that point, we -- that's where
25 our responsibility stops, right there.

1 Q. It starts, "This monthly summary report...?"

2 A. Yes.

3 Q. The last sentence says, "It will evaluate the
4 data for compliance with the specific NESHAP and SIP
5 leakage standards." Do you see that?

6 A. Yes.

7 Q. And so this report that Keramida provided to the
8 county says that Keramida will evaluate data for
9 compliance with SIP leakage standards?

10 A. Yeah.

11 Q. Was that a mistake?

12 A. We compare it. So, I mean, that's -- the intent
13 of that sentence is we are going to provide it in a
14 spreadsheet comparing it to the standards.

15 Q. But not determine compliance?

16 A. Yeah, I'm not contracted -- Keramida is not
17 contracted to determine compliance.

18 Q. Okay. And so the statement that Keramida would
19 evaluate data for compliance, was that a mistake?

20 A. No, we are evaluating the data. I think you can
21 fairly say, comparing it in a spreadsheet, we are
22 evaluating it but we are not -- we are not -- it's not a
23 final determination of compliance.

24 Q. And is it Keramida's expectation that the county
25 will also do its own independent evaluation of

1 Keramida's data to determine compliance?
 2 A. I think that's fair to say.
 3 Q. Okay. And that's your expectation with providing
 4 the data, is that the county would be the one to make
 5 determinations about compliance and violations, not a
 6 private company like Keramida?
 7 A. Yes. But I don't know their systems. But I
 8 would think that would be fair to say.
 9 Q. All right.
 10 MR. DAUSCH: That's all I have. Thank you, sir.
 11 HEARING OFFICER SLATER: Mr. Willis, any
 12 redirect?
 13 MR. WILLIS: Yes.
 14 REDIRECT EXAMINATION
 15 BY MR. WILLIS:
 16 Q. Again, on the compliance issue, you transmit this
 17 data to U.S. -- to Allegheny County Health Department,
 18 correct?
 19 A. Correct.
 20 Q. They have not asked you -- or the Department has
 21 not asked you to determine whether or not there is an
 22 actual violation for purposes of an enforcement action,
 23 have they?
 24 A. No.
 25 Q. But you are capable of reading the standard and

1 measuring the standard against what you see in your
 2 inspections?
 3 A. Yes.
 4 Q. And that's part of the auditing process, to
 5 ensure the quality of the inspections?
 6 A. Yes.
 7 Q. But you don't turn around and say, "We noticed
 8 that there are 27 violations with respect to the Battery
 9 B coke side," under 303?
 10 A. To the degree we put it in our spreadsheet on the
 11 SIP exceedance summary, that's to -- that's what we
 12 provide.
 13 So repeat your question so I can understand it if
 14 I'm answering it properly.
 15 Q. You are not telling the county that there are
 16 actual violations, you are looking at leaks?
 17 A. Yeah, we are not telling -- we are not saying
 18 there is a violation. We are saying the data that we
 19 are evaluating against the SIP standards, here is how
 20 they compare.
 21 Q. Right. But you are not directing the county as
 22 to what to do with that information?
 23 A. No, Keramida does not.
 24 Q. Okay.
 25 MR. WILLIS: That's all I have.

1 HEARING OFFICER SLATER: Mr. Dausch?
 2 MR. DAUSCH: Nothing further.
 3 HEARING OFFICER SLATER: All right. Mr.
 4 Harrington, you may step down.
 5 MR. HARRINGTON: Thank you.
 6 HEARING OFFICER SLATER: Mr. Willis, you may call
 7 your next witness.
 8 MR. WILLIS: We call our final witness, Mr.
 9 Greenewald.
 10 WALTER GREENEWALD, called as a witness, being
 11 duly sworn by the court reporter, testified as
 12 follows:
 13 DIRECT EXAMINATION
 14 BY MR. WILLIS:
 15 Q. Good afternoon. How are you doing?
 16 A. Good. How are you doing?
 17 Q. Pretty good. Could you state your name for the
 18 record?
 19 A. First name is Walter, middle name is John, last
 20 name is Greenewald.
 21 Q. Could you spell your last name?
 22 A. G-R-E-E-N-E-W-A-L-D.
 23 Q. Okay. Mr. Greenewald, where are you employed?
 24 A. At the Clairton Works facility.
 25 Q. Who is your employer?

1 A. Keramida Environmental.
 2 Q. I want to do a little background with you. Where
 3 did you go to high school?
 4 A. South Allegheny, which is in McKeesport,
 5 Pennsylvania.
 6 Q. Okay. What county would that be?
 7 A. Allegheny.
 8 Q. Okay. After high school, did you have any formal
 9 education?
 10 A. Yeah, I went to electronic school back in '90.
 11 Q. What did you focus on when you were in electronic
 12 school?
 13 A. To be an electronic technician.
 14 Q. Okay. Did you graduate?
 15 A. No, I just got some credits now, so...
 16 Q. Okay. Have you had any formal training after you
 17 got out of that?
 18 A. Yeah, a state certified fireman, EMT, Hazmat
 19 technician certified in confined space, advance rope
 20 rescue, a couple other ones that I can't think of,
 21 but...
 22 Q. Are you Method 303 certified?
 23 A. Yes, I am.
 24 Q. How long have you been Method 303 certified?
 25 A. Since May of 2014.

- 1 Q. Have you ever been Method 9 certified?
- 2 A. Yes.
- 3 Q. For how long?
- 4 A. Probably around February of 2014.
- 5 Q. Okay. How long have you worked for Keramida?
- 6 A. Two years.
- 7 Q. And what have you done in that capacity with
- 8 Keramida?
- 9 A. Method 303 inspections at the Clairton Works
- 10 facility and AnselonMittal in Monessen, in Monessen,
- 11 Pennsylvania.
- 12 Q. You do both facilities?
- 13 A. Yes, sir.
- 14 Q. The same inspection type?
- 15 A. Yes.
- 16 Q. Okay. Prior to working for Keramida, where did
- 17 you work?
- 18 A. I worked for Veolia North America.
- 19 Q. How long did you work for them?
- 20 A. A little over two years.
- 21 Q. Okay. And what did you do for them?
- 22 A. I did Method 9, Method 303, and water sampling.
- 23 Q. Did you do that at Clairton Coke Works?
- 24 A. Yes.
- 25 Q. Okay. All three methods, all three inspection

- 1 types?
- 2 A. Yes, that's correct.
- 3 Q. Okay. And prior to working for Veolia, where did
- 4 you work?
- 5 A. I did landscaping.
- 6 Q. Okay. For an employer?
- 7 A. Yes.
- 8 Q. Who was your employer then?
- 9 A. Four Seasons Landscaping.
- 10 Q. How long did you do that?
- 11 A. Approximately 10 years.
- 12 Q. Okay. I'm curious, why did you move from Veolia
- 13 to Keramida?
- 14 A. Oh, the work was in Apollo. So I worked at
- 15 Clairton Works, prior to doing landscaping, for seven
- 16 years for plant protection.
- 17 I did EMS, fire and rescue, and Hazmat. And a
- 18 friend of mine asked me if I was interested in, you
- 19 know, a new job at Clairton Works. They needed an
- 20 inspector.
- 21 Q. Was that person also an inspector at Clairton?
- 22 A. Yes.
- 23 Q. Who is that individual?
- 24 A. John Lewis.
- 25 Q. Is that person still an inspector?

- 1 A. No.
- 2 Q. They've moved on?
- 3 A. He had some health problems.
- 4 Q. Is he well now currently?
- 5 A. No, huh-uh (negative.)
- 6 Q. Okay. Sorry to hear that.
- 7 A. Thank you.
- 8 Q. Could you describe to me what your typical day is
- 9 in terms of your inspection from the time you get to
- 10 Clairton Coke Works until you leave your shift?
- 11 A. I get to the work trailer, and I put on my
- 12 personal protective equipment.
- 13 Q. What time?
- 14 A. My --
- 15 Q. I'm sorry, what time do you get there?
- 16 A. Oh, it varies. It could be like two o'clock,
- 17 four.
- 18 Q. In the afternoon?
- 19 A. In the afternoon.
- 20 Q. What is your shift? If you are coming in at two
- 21 o'clock, when did your shift end?
- 22 A. Whenever we are done with the inspections.
- 23 Usually, we have three batteries. Sometimes one day a
- 24 week, we get four batteries. So however long it takes.
- 25 Q. Okay. Now, feel free to continue on with your

- 1 typical day.
- 2 A. Typical day is I get my PPE on, grab the Keyport
- 3 log in.
- 4 Q. Is that the tablet?
- 5 A. That's the tablet.
- 6 Q. Okay.
- 7 A. And then I drive off to the battery that's on the
- 8 work schedule.
- 9 Q. Okay. And once you get to the battery, what do
- 10 you do?
- 11 A. Go into the foreman's office. I will give him a
- 12 work permit and he'll sign it. And then I'll get all
- 13 the out-of-service ovens and ask him is it safe on the
- 14 topside to inspect. And then he will let the crew know
- 15 that I'm on my way up. Sometimes I'll do doors first.
- 16 You know, I will mix it up sometimes, you know?
- 17 Q. Oh, you'll mix it up, won't do it the same way
- 18 every time?
- 19 A. No, huh-uh (negative.)
- 20 Q. Any particular reason why?
- 21 A. No, just personal preference. Like, I'll walk
- 22 the doors or I'll just go up on the topside and inspect
- 23 on the topside.
- 24 Q. To your understanding, does Method 303 require
- 25 you to do the inspection in any particular order?

- 1 A. No.
- 2 Q. Okay. To your understanding, how many inspectors
3 are there for Veolia at U.S. Steel Clairton?
- 4 A. That, I don't know right now. Maybe six or
5 seven.
- 6 Q. Okay. Do you work with all six at the same time?
- 7 A. No, huh-uh (negative.)
- 8 Q. Are there shifts in which there are other
9 inspectors working?
- 10 A. You mean in Veolia, or...
- 11 Q. No, for Keramida, I'm sorry.
- 12 A. No, there's usually just one per shift.
- 13 Q. One inspector per shift?
- 14 A. Yes.
- 15 Q. How many shifts are there?
- 16 A. There are three shifts.
- 17 Q. What are the shifts time-wise?
- 18 A. Like eight to four, sometimes two to ten or four
19 to twelve, and then we got the midnight shift from
20 twelve to eight.
- 21 Q. So you have an overnight shift --
- 22 A. Yes.
- 23 Q. -- doing inspections on each of the batteries?
- 24 A. Yes, that's correct, uh-huh (affirmative.)
- 25 Q. Okay. And you do this seven days a week?

- 1 A. No, five days a week.
- 2 Q. Okay. But to your understanding, Keramida does
3 inspections seven days a week?
- 4 A. Seven days a week, yep.
- 5 Q. Are you always working Monday through Friday?
- 6 A. Yes.
- 7 Q. Okay. So there's somebody else who would work on
8 the weekends?
- 9 A. Yes, that's correct, uh-huh (affirmative.)
- 10 Q. Do you know who that individual is?
- 11 A. Yeah, that would be inspector Mark Dvorzky and Ed
12 Cherepko.
- 13 Q. Okay. When you were with Veolia, what type of
14 inspections were you doing?
- 15 A. I was doing the Method 9, observing the pushing
16 of coke into hot cars and observing them going to the
17 quench tower.
- 18 I was doing the Method 303. I was doing one to
19 three soaking emissions and its water sampling.
- 20 Q. Okay. And then back to Keramida, you're doing
21 solely 303 inspections now?
- 22 A. Yes.
- 23 Q. Okay. To your understanding, Method 303, that's
24 a federal method?
- 25 A. Yes, that's correct, yep.

- 1 Q. And it's not required by the ACHD specifically?
- 2 A. (No response.)
- 3 Q. It's not an ACHD inspection?
- 4 A. No, huh-uh (negative,) just Method 303.
- 5 Q. I'm sorry. If you could continue with your
6 typical day. You've now gotten to the battery, you've
7 picked your starting point. What happens after you
8 begin your inspection day?
- 9 A. Oh, I'll get a schedule on what they're pushing,
10 what ovens are going to be pushing, and then -- so say I
11 head on the topside and I'll do a traverse. Like, I'll
12 walk, like, the pusher side and look at offtakes and
13 then walk the coke side, look at offtakes and caps. And
14 then I'll do a third traverse where I look at lids, make
15 sure, you know, there ain't no visible emissions.
- 16 Q. When you were certified by -- for Method 9, were
17 there panel members who certified you?
- 18 A. No. We went, like, to, like, a Smoke School
19 where we observed different plumes of smoke, like a
20 black plume and a white plume of smoke. And we would
21 give an opacity, a percentage, and then we would get
22 graded on it.
- 23 Q. And you do that twice a year?
- 24 A. I think -- I believe it was every six months, I
25 think so.

- 1 Q. Okay. But for 303, is that a similar pattern
2 where you go to Smoke School? How do you get certified
3 for 303?
- 4 A. We -- it's every three years, and we go in front
5 of a panel of three panel members and then -- well,
6 there's classroom first.
- 7 And then once we get done with the classroom, it
8 is, like, a three-day class. And then the last day, we
9 demonstrate our inspections, you know, doing charging,
10 you know, doing the offtakes.
- 11 Q. I'm sorry, I didn't mean to interrupt. Who were
12 the panel members when you were certified? Do you
13 remember who any of the panel members were?
- 14 A. Jerry Crowder, it's Jerry Crowder Environmental,
15 and then there was Beryl Denne. I think Gino was at the
16 last class, and I forget his last name.
- 17 Q. Have you ever known Angela Crowley to be a panel
18 member of any of the method certifications?
- 19 A. I don't think I've ever had her in class, huh-uh
20 (negative.)
- 21 Q. Okay. I'm going to shift to Battery B. You do
22 inspections on Battery B, correct?
- 23 A. That's correct.
- 24 Q. And you do inspections with respect to the doors
25 on Battery B?

1 A. Yes.

2 Q. And you do those inspections on the coke side of
3 Battery B?

4 A. That's correct, yes.

5 Q. To your knowledge, do you know if ACHD does those
6 inspections on the coke side of Battery B?

7 A. That, I don't know.

8 Q. Okay. Could you tell me what -- how you conduct
9 those inspections on the coke side of Battery B?

10 A. I get ahold of the -- it's just kind of
11 dangerous, because there's a door machine that they
12 actually have to move out of the way down at the end of
13 the battery so we can walk the coke side.

14 And once I get ahold of someone to move it, you
15 know, then I'll start walking and observing, you know,
16 the coke side of B Battery.

17 Q. Okay. You mentioned it's kind of dangerous.
18 Could you explain why that is particularly dangerous,
19 what makes that dangerous?

20 A. Just because of the door machine and you are
21 walking along the bench; where the other batteries, we
22 don't walk the bench.

23 Q. What's the bench? How would you describe the
24 bench?

25 A. The bench is the bench level right where the

1 doors are at. So you got like a long bench going down
2 and you walk underneath, you know, this shed that
3 captures the emissions. And then you really got to
4 watch because sometimes it's hard to see back there.

5 Q. But that is --

6 A. I'm sorry. But we got lighting and all that. We
7 use our lights now. But it is kind of dangerous because
8 the door machine could actually run you over if you
9 don't watch yourself, you know?

10 So we have to communicate with them to move the
11 door machine out of the way so we can walk it.

12 Q. You said it's dark and you need to use a light?

13 A. Yeah. Well, some areas, like -- I mean, it's lit
14 up on the top. But, like, where you are walking at, you
15 really got to watch.

16 Q. Why is it dark where you are? I mean, you have
17 lights above you. You can't see with the lights?

18 A. Well, some of them -- some areas, it's dark, you
19 know, back there.

20 Q. Okay. Are you recording any of the emissions
21 that you are seeing on the coke side of Battery B?

22 A. Yes.

23 Q. Are you required to do that?

24 A. Yes.

25 Q. Have you seen emissions from the doors on the

1 coke side of Battery B?

2 A. Yes, I have.

3 Q. Now, you know how to do opacity readings. Have
4 you ever attempted to determine an opacity of the
5 particulates coming out of those doors?

6 A. No, sir. I'm just Method 303.

7 Q. I understand. So you're just looking for leaks?

8 A. Just looking for leaks.

9 Q. And you see the leaks regularly?

10 A. Yeah, oh, yeah, yep.

11 Q. Every inspection?

12 A. I'd say yes.

13 Q. If you were to compare the leaks that you see on
14 the coke side of Battery B with the coke side of the
15 rest of the facility, is there a difference? Do you see
16 more or less?

17 A. I'd say there's more.

18 Q. A lot more?

19 A. No, but there's definitely more.

20 Q. Okay. Have you ever seen combustion from a door
21 being opened on the coke side, flames when the door is
22 opened?

23 A. Yeah, yeah, a little bit, yep.

24 Q. Have you ever seen black smoke when the doors are
25 being opened on the coke side?

1 A. Yeah, yep.

2 Q. And thinking back on the emissions that you've
3 seen, could you ever say that there was something -- and
4 I know you are not measuring for it -- but could you
5 qualify anything for 100 percent opacity?

6 A. I can't really give an opinion on that since I'm
7 not certified in that, in Method 9.

8 Q. That's fair. Do you do anything beyond actually
9 counting the leaks on the coke side? Are you making any
10 determination as to the -- you're aware of what the yard
11 equivalent standard is. Are you aware of that, the
12 coke-side yard equivalent for Battery B? It's okay if
13 you don't.

14 A. I don't know.

15 Q. Okay. So you are strictly counting leaks?

16 A. Yes.

17 Q. Okay, that's fair.

18 MR. WILLIS: Actually, that's all I have. Thank
19 you. I appreciate it.

20 MR. GREENEWALD: Thank you.

21 CROSS-EXAMINATION

22 BY MR. DAUSCH:

23 Q. Hi, Mr. Greenewald.

24 A. How are you doing?

25 Q. When you read from the bench on the B Battery

1 coke side, you're within a couple feet of the coke
 2 battery doors; is that right?
 3 A. Yes, that's correct.
 4 Q. About five feet?
 5 A. Like, maybe eight to ten, but it varies.
 6 Q. All of your inspections, you are using Method
 7 303, correct?
 8 A. Correct.
 9 Q. And you don't deviate from that method?
 10 A. No, I don't.
 11 Q. You just follow that Method 303?
 12 A. Follow Method 303, yep.
 13 Q. And do you remember coming down to my office in
 14 Pittsburgh on October 30th of 2018 and I got to ask you
 15 questions under oath about your day?
 16 A. Yes.
 17 Q. As of that time, you had never heard of the
 18 source testing manual, correct?
 19 A. Correct.
 20 Q. And you had never seen the source testing manual?
 21 A. No.
 22 Q. And you had never had any training on EPA's
 23 Method 109?
 24 A. No.
 25 MR. DAUSCH: That's all I have, sir. Thanks for

1 coming down.
 2 MR. GREENEWALD: Okay, thank you.
 3 MR. WILLIS: That's all I have.
 4 MR. GREENEWALD: Okay, sir, thank you.
 5 HEARING OFFICER SLATER: Thank you, Mr.
 6 Greenewald.
 7 Mr. Willis, do you have any other witnesses who
 8 you want to call?
 9 MR. WILLIS: No, sir. The Department rests its
 10 case.
 11 HEARING OFFICER SLATER: All right. Mr. Dausch,
 12 did you want to present your first witness?
 13 MR. DAUSCH: Sure.
 14 MR. WILLIS: Before you start, I just wanted to
 15 ask your order of witnesses. Is that consistent with
 16 what you had in the --
 17 MR. DAUSCH: Can we take a few minutes if we see
 18 if we need to --
 19 HEARING OFFICER SLATER: Yeah, let's go off the
 20 record.
 21 (The hearing recessed at 1:49 p.m. and
 22 reconvened at 2:04 p.m.)
 23 HEARING OFFICER SLATER: All right, let's go back
 24 on the record. Mr. Dausch, you may call your first
 25 witness.

1 MR. DAUSCH: We are going to call Ed Cherepko.
 2 HEARING OFFICER SLATER: Okay.
 3 EDWARD CHEREPKO, called as a witness, being duly
 4 sworn by the court reporter, testified as follows:
 5 DIRECT EXAMINATION
 6 BY MR. DAUSCH:
 7 Q. Good afternoon, sir. Can you please state your
 8 full name for the record?
 9 A. Edward Richard Cherepko, Jr.
 10 Q. And can you tell us what your job is?
 11 A. I am a 303 inspector for Keramida.
 12 Q. How long have you had that position?
 13 A. With Keramida? For about two years.
 14 Q. And before you started working for Keramida, what
 15 position did you have?
 16 A. I was with Veolia. I was a 303 and Method 9
 17 inspector.
 18 Q. Okay. And when did you first start with Veolia?
 19 A. About three years prior.
 20 Q. How long have you been with Keramida, two years?
 21 A. Two years.
 22 Q. And so when you started working with Veolia, was
 23 that the first time you became Method 303 certified?
 24 A. Yes.
 25 Q. And so you've had a Method 303 certification for

1 about five years now?
 2 A. Yes, between four and five years.
 3 Q. And where physically do you work, what location?
 4 A. At the Clairton plant.
 5 Q. Has that been the same for the last five years?
 6 A. It has.
 7 Q. Okay. And for the last five years, you've been
 8 doing Method 303 observations at the Clairton plant?
 9 A. Yes.
 10 Q. And you do observations on coke batteries?
 11 A. Yes.
 12 Q. The method that you use, has it always been
 13 Method 303?
 14 A. Yes.
 15 Q. And is it fair to say you don't deviate from that
 16 method?
 17 A. Correct.
 18 Q. You don't pick and choose which parts of the
 19 method you follow?
 20 A. Correct.
 21 Q. The types of inspections do you do at Clairton,
 22 what are they?
 23 A. Battery inspections, which would include the
 24 topside, doors, and the charges.
 25 Q. Okay. And would topside include both lids and

1 offtakes?

2 A. Yes.

3 Q. Okay. How often do you work at the plant?

4 A. I am there four days a week.

5 Q. And do you have a typical shift?

6 A. I work midnights.

7 Q. Okay. And generally, what do you accomplish on a
8 typical shift?

9 A. I do the inspection that I'm scheduled to do.

10 Q. And do you have any say in which inspection you
11 do on which day?

12 A. I don't.

13 Q. Who makes that determination?

14 A. Our manager, Chuck Swallow.

15 Q. Okay. And when your manager tells you which
16 inspections to do on which day, you have to follow that?

17 A. Yes.

18 Q. You don't have any discretion to change what you
19 are going to do on a given day?

20 A. No.

21 Q. Okay. When you do your inspections, do you
22 record your data in a tablet?

23 A. Yes.

24 Q. Okay. Do your recall on October 30th, 2018 of
25 this year that you had your deposition taken under oath

1 MELISSA HALLAS, called as a witness, being duly
2 sworn by the court reporter, testified as follows:

3 DIRECT EXAMINATION

4 BY MR. DAUSCH:

5 Q. Hi.

6 A. Hi.

7 Q. Can you state your full name for the record?

8 A. Melissa Ann Hallas.

9 Q. And what do you do for employment?

10 A. I am a 303 inspector.

11 Q. And what company do you work for?

12 A. Keramida.

13 Q. And as a Method 303 inspector for Keramida, you
14 do inspections at coke batteries?

15 A. Correct.

16 Q. At what locations do you do those inspections?

17 A. U.S. Steel Clairton Works and ArcelorMittal in
18 Monessen.

19 Q. How long have you been a Method 303 inspector for
20 Keramida?

21 A. Thirteen months.

22 Q. What did you do before that?

23 A. I ran an OSHA project for Eastman Chemical and I
24 also sold heavy equipment, generators, things like that.

25 Q. Before you started doing inspections for

1 about what you do on a daily basis?

2 A. I do.

3 Q. And do you remember at that time, you had never
4 seen the county source testing manual?

5 A. Yes.

6 Q. Have you seen it since?

7 A. No.

8 Q. Have you ever had any training on the source
9 testing manual?

10 A. No.

11 Q. Is it fair to say that you are not following the
12 source testing manual to do your inspections?

13 A. Yes, that's a fair statement.

14 Q. And you've never seen Method 109; is that fair?

15 A. Correct.

16 Q. Never had any training on Method 109?

17 A. No.

18 MR. DAUSCH: That's all I have. Thank you.

19 MR. WILLIS: I have no questions.

20 HEARING OFFICER SLATER: All right. Mr.

21 Cherepko, you may step down.

22 MR. CHEREPKO: Thank you.

23 HEARING OFFICER SLATER: Mr. Dausch, do you want

24 to call your next witness?

25 MR. DAUSCH: We will call Melissa Hallas.

1 Keramida, did you have to have training on Method 303?

2 A. Yes.

3 Q. And did you take that training?

4 A. Yes.

5 Q. Are you a Method 303 certified observer?

6 A. Yes.

7 Q. And how long have you been a Method 303 certified
8 observer?

9 A. Since November of 2017.

10 Q. And do you have to do things on a regular basis
11 to maintain that certification?

12 A. Yes.

13 Q. What is it that you have to do?

14 A. I did my — renewed my — did my test, my yearly
15 test, November of 2018.

16 Q. Okay. And so since you started working at
17 Keramida, you have been a Method 303 certified observer?

18 A. Yes.

19 Q. What types of inspections do you do at Clairton?

20 A. I do the topside inspections, which is the lids,
21 offtakes, and charging and doors.

22 Q. Okay. And how many days do you work at Clairton
23 in a given week?

24 A. One day.

25 Q. And has that always been the case?

1 A. Yes. I fill in when -- for vacations and things
 2 like that, but primarily one day a week.
 3 Q. Okay. And is that typically the same day?
 4 A. Yes, Wednesday.
 5 Q. Okay. When you show up at Clairton to do your
 6 inspections on Wednesdays, do you get to pick and choose
 7 which inspections you do?
 8 A. No.
 9 Q. Do you get to pick and choose which batteries you
 10 inspect on a given day?
 11 A. No.
 12 Q. How is that decision made?
 13 A. It's already determined for me.
 14 Q. Okay. Is there a schedule that's made?
 15 A. Yes.
 16 Q. Okay. And you have to follow that schedule?
 17 A. Correct.
 18 Q. When you do your inspections, do you record your
 19 information on a tablet?
 20 A. Yes.
 21 Q. And then at the end of the day, do you also fill
 22 out a handwritten sheet for Keramida?
 23 A. Yes.
 24 Q. Okay. The entire time you've been a Method 303
 25 inspector for Keramida, you have followed Method 303; is

1 A. Yes.
 2 Q. How much time do you spend at Monessen?
 3 A. Four days a week.
 4 Q. To give an idea of the scale between the two
 5 facilities, how big is Monessen? How many batteries?
 6 Let's say, how many batteries are there at Monessen?
 7 A. Two.
 8 Q. And how many ovens per battery?
 9 A. I think total, there are 67 between the two.
 10 Q. Sixty-seven batteries?
 11 A. Yeah, I think. That's an estimate.
 12 Q. How many batteries are at Clairton?
 13 A. Ten.
 14 Q. Do you know how many batteries -- or ovens there
 15 are?
 16 A. Total?
 17 Q. Yes.
 18 A. I don't know the total.
 19 Q. For any given battery -- let's say Battery B, are
 20 you familiar with Battery B?
 21 A. Yes.
 22 Q. How many ovens are there for Battery B?
 23 A. Offhand, I want to 60, roughly a little more than
 24 60 some.
 25 Q. Okay. And you are doing 303 readings for leaks

1 that fair?
 2 A. Yes.
 3 Q. You don't deviate from that method?
 4 A. No.
 5 Q. You don't use any other inspection methods?
 6 A. No.
 7 Q. You were also -- had your deposition taken on
 8 October 30th of this year, correct?
 9 A. Correct.
 10 Q. And at that time, you had never seen the source
 11 testing manual?
 12 A. I have not.
 13 Q. And you've never had any training on the source
 14 testing manual?
 15 A. No, I have not.
 16 Q. You've never seen Method 109?
 17 A. No.
 18 Q. You've never had any training on Method 109?
 19 A. No.
 20 MR. DAUSCH: That's all I have. Thank you.
 21 MS. HALLAS: Okay.
 22 CROSS-EXAMINATION
 23 BY MR. WILLIS:
 24 Q. You mentioned that you split your time between
 25 Clairton Coke Works and Monessen?

1 at both facilities?
 2 A. Correct.
 3 Q. Are you checking for door leaks at both
 4 facilities?
 5 A. Yes.
 6 Q. Have you ever done a comparison between the
 7 amount of door leaks between the facilities?
 8 A. No.
 9 Q. Would you have any idea as to the difference?
 10 A. No.
 11 Q. Okay.
 12 MR. WILLIS: I have no further questions.
 13 HEARING OFFICER SLATER: Any redirect, Mr.
 14 Dausch?
 15 MR. DAUSCH: No. Thanks for coming down.
 16 HEARING OFFICER SLATER: Ms. Hallas, you may step
 17 down.
 18 Mr. Dausch, you may call your next witness.
 19 MR. DAUSCH: For our next witness, we will call
 20 Mark Dvorsky.
 21 MARK DVORSKY, called as a witness, being duly
 22 sworn by the court reporter, testified as follows:
 23 DIRECT EXAMINATION
 24 BY MR. DAUSCH:
 25 Q. Good afternoon, sir. Can you state and spell

1 your name for the record, please?

2 A. Yes, Mark Dvorksy, spelled D as in David, V as in
3 Victor, O-R-S-K-Y.

4 Q. And, sir, what do you do for employment?

5 A. I work for Keramida Incorporated Environmental
6 Company. I'm a Method 303 inspector.

7 Q. How long have you had that position?

8 A. A year and a half.

9 Q. And what did you do prior to becoming a Method
10 303 inspector for Keramida?

11 A. I worked at Cameron Valves and Measurements as a
12 first article inspector.

13 Q. Okay. And generally, what did that involve?

14 A. Inspecting parts that came in raw and finished
15 for dimensionals, pressure testing, hydrostatic testing,
16 and final inspection according to the blueprints and GD
17 and T tolerances.

18 Q. Before you started working as a Method 303
19 inspector for Keramida, can we assume you had to go
20 through Method 303 training?

21 A. Yes.

22 Q. Okay. And you had to become a Method 303
23 certified observer?

24 A. Yes.

25 Q. When do you recall receiving your Method 303

1 criteria by the three panel members.

2 Q. And then once you finished all those steps, you
3 became certified?

4 A. Yes.

5 Q. And you have to take certain steps to make sure
6 you maintain your certification; is that right?

7 A. Yes.

8 Q. And have you done that?

9 A. Yes, I was -- I had my recertification in June of
10 2018.

11 Q. And did you explain in your testimony that before
12 you did your Method 303 certification, you had some
13 training on coke batteries?

14 A. It was more or less a safety walkthrough
15 orientation, familiarization, and just watching
16 certified Method 303 inspectors do their job and
17 observing them.

18 Q. Was the purpose to make sure that you were able
19 to do your inspections at Clairton in a safe manner?

20 A. Correct.

21 Q. Okay. Who was it that taught you how to do that?

22 A. Walt Greenswald.

23 Q. Okay. The inspections you do at the Clairton
24 plant, do you work on a specific day?

25 A. I have a specific schedule, yes. I work four

1 certification?

2 A. May of 2017.

3 Q. Okay. Sir, just to confirm, there is a binder in
4 front of you that's U.S. Steel Volume 1. Can you look
5 at -- can you look at Tab 35, please?

6 And, sir, the document in Tab 35 says, "Method
7 303 determination of visible emissions from byproduct
8 coke oven batteries." Do you see that?

9 A. Yes.

10 Q. And this would be the Method 303 that you're
11 certified under; is that fair? And you can take a
12 second to look at the document.

13 A. Yes, Method 303 is the method -- or the procedure
14 that I follow.

15 Q. This identifies Method 303, correct, Exhibit 35?

16 A. Correct.

17 Q. And to become a Method 303 certified observer,
18 you had to go through classroom training and field
19 training?

20 A. Yes.

21 Q. Can you explain what was involved?

22 A. I was on the coke batteries for two weeks prior
23 to going to Method 303 training. And then once I was at
24 Method 303 training and received the in-class classroom
25 training and the on-battery testing, I had to meet the

1 days a week.

2 Q. Okay. And do you have a specific shift that you
3 work?

4 A. I primarily work midnight shifts.

5 Q. Okay. And what does that shift involve? What's
6 the time period for a midnight shift?

7 A. Midnight to eight.

8 Q. Do you know what the other shifts are that other
9 Keramida inspectors work?

10 A. It's usually eight to four or twelve to eight
11 or -- I'm sorry, yeah, twelve or eight or four 'til
12 whenever the shift is done.

13 Q. Okay. And so there are shifts that cover the
14 full 24-hour period?

15 A. Correct, there are three shifts.

16 Q. Understood. And on a typical shift, how many
17 different batteries are you doing observations on?

18 A. Anywhere from three to four normally. On the
19 weekends, it's five.

20 Q. Okay. Is your shift longer on the weekends?

21 A. Yes.

22 Q. The inspections that you do, how do you know
23 where to go and what to inspect on any given day?

24 A. Oh, we have a schedule posted on a monthly basis
25 that we follow.

1 Q. Okay. And do you have any say in what you
2 inspect or where you inspect on a given day?

3 A. No, I follow the schedule.

4 Q. Okay. And when you do your inspections at
5 Clairton, what different things do you do inspections
6 for?

7 A. I inspect the charging operations, the topside
8 and lid traverse, and the door inspections.

9 Q. Okay. And when you do all of those inspections,
10 you're following Method 303?

11 A. Yes.

12 Q. And using the training you've received with
13 Method 303?

14 A. Yes.

15 Q. You don't deviate from Method 303 on your
16 inspections?

17 A. No.

18 Q. And you're not allowed to pick and choose what
19 methods you use on a given day; is that fair?

20 A. No, I follow 303.

21 Q. Okay. When you do your inspections, how is it
22 that you record the information that you see?

23 A. We record it on an electronic tablet.

24 Q. Okay. And there are occasions when you do
25 inspections of the B Battery coke-side doors?

1 A. Yes.

2 Q. And when you do those, do you do those from the
3 bench?

4 A. We do.

5 Q. Okay. And when you are inspecting on the bench,
6 approximately how far away are you from the doors? Is
7 it a couple of feet?

8 A. Six to eight feet away, just to be safe.

9 Q. Yeah, so you're pretty close to the doors?

10 A. We're very close to the doors.

11 Q. Do you recall -- let me back up.
12 At the end of the day after you've -- or at the
13 end of your shift after you finished all of your
14 inspections, is there also a paper document that you
15 fill out?

16 A. Yes.

17 Q. And what information do you put on that document?

18 A. I record the particular batteries that I was
19 assigned with the number of door leaks, offtake leaks,
20 or lid leaks found at any particular battery.

21 Q. Can you look at Exhibit 62? It would be in the
22 second binder on page 12.

23 A. Could you repeat that page?

24 Q. Yeah, sorry. It's Exhibit 62, page 12.

25 A. Yes.

1 Q. Are you familiar with this document?

2 A. Yes.

3 Q. What is this document?

4 A. This is the sheet that I was just mentioning that
5 we fill out on recording the number of leaks.

6 Q. Okay.

7 A. Or any particular leaks.

8 Q. Would this be a standard form that you fill out
9 at the end of your shift?

10 A. Yes.

11 Q. Where is this form kept?

12 A. It's kept in our trailer at all times.

13 Q. Where's the trailer? Is that at the Clairton
14 plant?

15 A. Yes.

16 Q. Okay. And what's in the trailer?

17 A. We are provided a shower, a place to keep our
18 work uniforms. We keep our tablets charged. We have a
19 tabletop workbench area where we can do paperwork or
20 review, and it's also -- there's a restroom provided and
21 lockers provided for us.

22 Q. This form that's on Tab 62 at page 12, one of
23 these forms are filled out every day?

24 A. Yes.

25 Q. Is it a form that you fill out by yourself or do

1 all of the Keramida inspectors fill out this one form?

2 A. Yeah, we fill -- like, since -- in particular,
3 this particular day, I worked midnight shift. So I
4 would be the one filling it out first, and then I take
5 it back to the trailer. It would be blank in the other
6 spots. Then as the other inspectors finish their day,
7 they fill in theirs, their information.

8 Q. Do you fill out this form on the same date that
9 you do the inspections?

10 A. Yes.

11 Q. This form, does it include every inspection that
12 Keramida does on every battery at the Clairton plant?

13 A. Yes.

14 Q. Okay. And so if you look at the top row, is
15 that -- in the grayed-out row, does that say "charging"?

16 A. Yes.

17 Q. And then the batteries are all listed on the
18 column on the far left; is that correct?

19 A. Yes.

20 Q. And so would this row have the results of the
21 charging inspections at the 10 batteries that Keramida
22 did on October 18th, 2017?

23 A. Yes.

24 Q. And for the charging observations you did that
25 day, how would we know which ones you did?

1 A. Under the observer name, it's my initials.
 2 Q. Okay. And so when you're filling out your
 3 portion of this form, you use your initials under the
 4 observer column?
 5 A. Correct.
 6 Q. And so any that say "MD" would be you?
 7 A. Correct.
 8 Q. And what does the time column represent?
 9 A. That's the time we start our traverse to the time
 10 we end our traverse, and the time we start the charge
 11 until the charge has ended on the charging section.
 12 Q. And where do you get the information on the time?
 13 A. We use a stopwatch for start and stop times.
 14 Q. Okay. The next column over it says,
 15 "SIP/NESHAP." Is that where you record the results of
 16 your inspections?
 17 A. Yes.
 18 Q. Okay. And underneath the charging row, is that
 19 the door inspections?
 20 A. No, that's the — that's charging.
 21 Q. Right. So there's a charging row on the top
 22 which has all the batteries, correct?
 23 A. Right.
 24 Q. Underneath that, what's next?
 25 A. Oh, it says "doors."

1 Q. Okay. And this would include all of the results
 2 for the door inspections for that day?
 3 A. Yes.
 4 Q. And this would identify all of the Keramida
 5 inspectors who did these observations?
 6 A. Yes.
 7 Q. Okay. Underneath doors is oftakes?
 8 A. Yes.
 9 Q. And this row would include all of the oftake
 10 inspections that the Keramida inspectors did on this
 11 date?
 12 A. That is correct.
 13 Q. Okay. And then the final row is lids, correct?
 14 A. Yes.
 15 Q. And this would include all of the lid inspections
 16 that the Keramida inspectors did that day?
 17 A. Yes.
 18 Q. And those are the four types of inspections that
 19 Keramida does on a given day, correct?
 20 A. Yes.
 21 Q. Charging, doors, oftakes and lids, correct?
 22 A. Yes.
 23 Q. These inspections are all pursuant to Method 303?
 24 A. Yes.
 25 Q. You're not doing any Method 9 opacity

1 observations; is that correct?
 2 A. That's correct, no Method 9.
 3 Q. Okay. You've never seen the source testing
 4 manual?
 5 A. No.
 6 Q. You've never had any training on the source
 7 testing manual?
 8 A. No.
 9 Q. You don't follow the methods in the source
 10 testing manual?
 11 A. No.
 12 Q. You've never received any training on EPA Method
 13 109?
 14 A. No.
 15 Q. You don't follow Method 109 with your
 16 inspections?
 17 A. No.
 18 MR. DAUSCH: That's all I have. Thank you, sir.
 19 HEARING OFFICER SLATER: Mr. Willis, did you have
 20 some questions for Mr. Dvorsky?
 21 MR. WILLIS: Sure.
 22 CROSS-EXAMINATION
 23 BY MR. WILLIS:
 24 Q. Have you ever heard of Method 109?
 25 A. I've heard of it.

1 Q. But you've never seen it?
 2 A. Never seen it.
 3 Q. Okay. When you are on the topside of any
 4 particular battery, can you see other batteries from
 5 your vantage point?
 6 A. You can see some of them in a distance, yes.
 7 Q. Have you ever seen emissions from a distance?
 8 A. I've seen a door fire, but I'm not really paying
 9 attention to the other battery per se when I'm
 10 concentrating on my battery that I am doing right there.
 11 But, you know, I'm not looking for emissions from afar.
 12 Q. Well, I'm just wondering if you've seen them.
 13 A. No.
 14 Q. Okay. Now, you say you've done Method 303 with
 15 respect to the coke side of Battery B?
 16 A. Yes.
 17 Q. Are the emissions greater on the coke side of
 18 that battery as opposed to the push side of that
 19 battery?
 20 A. Yes.
 21 Q. Okay.
 22 MR. WILLIS: That's all I have.
 23 HEARING OFFICER SLATER: Any redirect?
 24 MR. DAUSCH: No, nothing else.
 25 HEARING OFFICER SLATER: Mr. Dvorsky, you may

1 step down.

2 MR. DVORSKY: Thank you.

3 MR. DAUSCH: Mr. Slater, all of the Keramida came
4 as third parties with their attorney. So they might
5 want to -- I'm not sure if they are planning to leave,
6 but we can give them time if they want to step out.

7 HEARING OFFICER SLATER: Okay.

8 (The hearing recessed at 2:29 p.m. and reconvened
9 at 2:43 p.m.)

10 HEARING OFFICER SLATER: Let's go back on the
11 record.

12 Mr. Dausch, you may call your next witness.

13 MR. DAUSCH: Yeah, we are going to call Gary
14 Downard, please.

15 GARY DOWNARD, called as a witness, being duly
16 sworn by the court reporter, testified as follows:

17 DIRECT EXAMINATION

18 BY MR. DAUSCH:

19 Q. Sir, can you state and spell your full name for
20 the record, please?

21 A. Gary Downard, D-O-W-N-A-R-D.

22 Q. And, Mr. Downard, you are an employee of the
23 Allegheny County Health Department?

24 A. Yes.

25 Q. You are a coke oven process technician?

1 A. Correct.

2 Q. You started working at the county in 2013?

3 A. That's correct.

4 Q. And you have been a coke oven process technician
5 the entire time you've worked at the county?

6 A. Yes.

7 Q. And you're one of two coke oven process
8 technicians that works full time at the Clairton plant?

9 A. Yes.

10 Q. You work with Angela Crowley, who is the other
11 inspector; is that correct?

12 A. Correct.

13 Q. And has Ms. Crowley worked at the Clairton plant
14 the entire time you have also worked at the Clairton
15 plant?

16 A. Yes.

17 Q. What you do on a daily basis is you do visual for
18 visual emissions at the batteries; is that fair?

19 A. Yes.

20 Q. You do inspections for visible emissions at
21 different fugitive emission points at the batteries?

22 A. Yes.

23 Q. You also do opacity estimations using Method 9?

24 A. Yes.

25 Q. Can you explain what opacity is in general terms?

1 A. The transmission of light through a smoke plume.

2 Q. Okay. When you do an opacity reading pursuant to
3 Method 9, what are you doing?

4 A. I am looking through a smoke plume to see how
5 much of the background light comes through that plume.

6 Q. Okay. When you do a reading, do you record some
7 type of percentage, or what's the scale?

8 A. Zero to 100 percent in five percent increments.

9 Q. And what's the difference between a zero percent
10 reading and a 100 percent reading of opacity?

11 A. A zero percent reading, there would be no
12 obstruction to the background; a 100 percent reading,
13 you would not be able to see any of the background.

14 Q. Okay. And so zero percent, you could see
15 completely through a plume?

16 A. Well, zero percent would -- there wouldn't be a
17 plume.

18 Q. Okay. And a hundred percent, there would be a
19 plume that you couldn't see through?

20 A. Correct.

21 Q. When you do your readings at Clairton for either
22 visible emissions at the fugitive battery points or for
23 opacity, you are not using any scientific equipment that
24 measures emissions; is that right?

25 A. That's correct.

1 Q. You are using your eyes?

2 A. Yes.

3 Q. The inspections that you do at Clairton that
4 don't involve opacity readings, what are those?

5 A. That would be topside inspection, inspecting the
6 leaks from the standpipes and lid inspection, inspecting
7 leaks from the charging port lids. That would be pretty
8 much it.

9 Q. What about charging itself, do you do charging
10 observations for visible emissions?

11 A. Yes.

12 Q. Okay. That's not an opacity reading, correct?

13 A. No.

14 Q. I'm right?

15 A. It's not an opacity reading.

16 Q. Okay. Do you do inspections for door leaks that
17 aren't opacity readings?

18 A. No.

19 Q. Okay. So all of your door leak inspections are
20 just for opacity?

21 A. Well, they -- no. Well, they -- there's an
22 inspection where the number of door leaks is added up,
23 but we do assign an opacity to all of our leaks.

24 Q. Okay. And so there's two types of door
25 inspections; one is for visible emissions seen through

1 leaks and the other is for opacity?

2 A. Well, the other is for what we call a high-
3 opacity door leak. That's another category.

4 Q. Okay. And so one would be an inspection of doors
5 where you count leaks that you see as visible emissions,
6 and the other is an opacity reading of a door leak?

7 A. That exceeds a particular standard, yes.

8 Q. Okay. You have the discretion to decide each day
9 where you go and do your inspections, correct?

10 A. Correct.

11 Q. And you have the discretion to decide what
12 inspections you are going to do on a given day?

13 A. Yes.

14 Q. Okay. The inspections you do each day you do on
15 paper forms, correct?

16 A. Yes.

17 Q. And these are standard forms that are provided by
18 the Allegheny County Health Department?

19 A. Correct.

20 Q. They are not forms that you made up?

21 A. They are not forms that I made up.

22 Q. Okay. Have they been standard forms since you
23 started doing inspections at Clairton?

24 A. They have been in general. There may have been
25 slight modifications; but in general, they are pretty

1 A. Yes.

2 Q. You keep them in your car?

3 A. I do.

4 Q. Okay. And then on some regular basis, every two
5 weeks or so, either you or your colleague, Angela
6 Crowley, will take all of the inspection forms to this
7 office in Lawrenceville?

8 A. Correct.

9 Q. And what you will do is you will take turns
10 bringing all of those inspection forms to the
11 Lawrenceville office and going through them and entering
12 the data manually into a computer Excel program?

13 A. Correct.

14 Q. And is that a program that you created?

15 A. No, it is not.

16 Q. Okay. Do you know who created it?

17 A. I can't say with a hundred percent certainty who
18 created that or if any of it was -- what do you call it?
19 -- prepackaged. I don't know.

20 Q. Okay. Has that been the procedure as long as
21 you've been a coke oven process technician?

22 A. It has been, yes.

23 Q. Okay. And is it every two weeks either you or
24 Angela Crowley does the entry?

25 A. Correct.

1 much the same forms.

2 Q. And the forms that you use, they aren't forms
3 that you yourself prepared; is that right?

4 A. They are not forms that I have prepared.

5 Q. Okay. And so you use a standard preprinted form
6 and fill out information on a daily basis?

7 A. Yes, correct.

8 Q. And you fill out a form for every type of
9 inspection that you do; is that right?

10 A. Correct.

11 Q. And there are different forms for different types
12 of inspections?

13 A. Correct.

14 Q. And so on a daily basis, you would fill out paper
15 forms for every different type of inspection you did
16 that day?

17 A. Correct.

18 Q. And so we would be able to look at those forms
19 and know what types of inspections you did on a given
20 day?

21 A. Yes.

22 Q. And all of those forms are dated?

23 A. They are.

24 Q. Okay. And at the end of the day, can we assume
25 that you keep those forms in some spot?

1 Q. Okay. And you take turns?

2 A. Yes.

3 Q. So you're doing the data entry approximately once
4 a month?

5 A. Correct.

6 Q. And approximately how long does it take when you
7 do that day of data entry?

8 A. It takes the whole day or pretty much most of the
9 whole day.

10 Q. Okay. And after you enter that data into the
11 computer, do you know if it's checked in any way?

12 A. It -- I don't know if anybody else checks it.

13 Q. What do you do with the inspection forms after
14 you enter the data?

15 A. They are given to document control.

16 Q. Do you know what happens with them after that?

17 A. They are put into some other form. I'm not sure
18 about that.

19 Q. So you're not sure what happens after you give
20 them to document control?

21 A. Well, document control would handle it from
22 there.

23 Q. Okay. And that's the last time you would see the
24 forms, when you would pass them off to document control?

25 A. Generally speaking, yes.

1 Q. Sir, there are inspection methods that exist; is
2 that right?

3 A. Yes.

4 Q. And these methods exist so that inspectors are
5 doing observations in a consistent manner; is that fair?

6 A. Yes.

7 Q. And they exist to make sure inspectors are doing
8 inspections in a reliable manner; is that fair?

9 A. I would say so, yeah.

10 Q. You have a certification for doing an
11 observation, correct?

12 A. Yes.

13 Q. You're a Method 9 certified observer?

14 A. Correct.

15 Q. And that's EPA's Method 9?

16 A. Correct.

17 Q. When did you first become a Method 9 certified
18 observer?

19 A. I believe it was June of 2013.

20 Q. Okay. And Method 9 is a certification for
21 reading opacity, correct?

22 A. Yes.

23 Q. It's not for reading visible emission leaks,
24 right?

25 A. That's correct.

1 observing visual emissions from batteries?

2 A. I'm not certified.

3 Q. Right. And Method 9 is for opacity?

4 A. Correct.

5 Q. You're not certified in any method for observing
6 visible emissions from batteries?

7 A. I'm not 303 certified.

8 Q. Right. Do you have any other certification for
9 observing visible emissions from batteries?

10 A. No.

11 Q. So the only certification you have is Method 9
12 for opacity?

13 A. That's correct.

14 Q. Okay. And the Allegheny County Health Department
15 has never required that you get a certification for
16 reading visible emissions like Method 303?

17 A. No.

18 Q. When you do your inspections, are you inspecting
19 for -- let me back up.

20 Do you know what NESHAP requirements are?

21 A. No.

22 Q. Okay. Do you know what Article 21 requirements
23 are?

24 A. In general, yes.

25 Q. Okay. And do you know what SIP requirements are?

1 Q. Okay. It's just for opacity?

2 A. Correct.

3 Q. And you use Method 9 when you do your door
4 opacity readings, correct?

5 A. Correct.

6 Q. And you use Method 9 when you do soaking
7 observations?

8 A. Correct.

9 Q. Okay. There are other methods that exist for
10 doing visible emissions inspections on battery points,
11 correct?

12 A. Yes.

13 Q. One of those methods is Method 303, correct?

14 A. Correct.

15 Q. Method 303 is a federal inspection method for
16 visible emissions from battery fugitive points?

17 A. It is a method. That's all I know.

18 Q. Okay. Are you a Method 303 certified observer?

19 A. No.

20 Q. Have you ever been?

21 A. No.

22 Q. So you don't use Method 303 to do any of your
23 visible emissions observations?

24 A. I do not.

25 Q. So you're not certified in any method for

1 A. I'm not sure at this point.

2 Q. Okay. When you're doing your observations, what
3 are you doing them for; do you know?

4 A. How do you mean?

5 Q. Are you looking at observations for any
6 regulations that apply to Clairton?

7 A. The inspection would -- it is -- in order to --
8 it would relate back to regulations.

9 Q. Do you know what those regulations are?

10 A. That would be Article 21.

11 Q. Okay. And do you know which sections of Article
12 21 you are inspecting for?

13 A. The coke oven section.

14 Q. Did you ever have any training on Article 21?

15 A. Training, no.

16 Q. Okay. Your inspections have to comply with the
17 Department's source testing manual, right?

18 A. We use that as a guide for our inspections.

19 Q. Okay. And do you have to follow it?

20 A. We follow it as a guide, but there are times when
21 we have to use Article 21 as opposed to the guide
22 because the guide has not been updated in quite while I
23 understand, so...

24 Q. So is it fair to say that for your inspections,
25 sometimes you follow the source testing manual?

1 A. We follow it in general but not in all instances.

2 Q. Okay. So would it be fair to say that sometimes

3 you follow the source testing manual for your

4 inspections?

5 A. Yes.

6 Q. And then sometimes you don't follow the source

7 testing manual for your inspections?

8 A. Correct, correct.

9 Q. Is there any written document that you're aware

10 of that would show the times when you do follow the

11 source testing manual and the times when you don't?

12 A. Well, it makes you refer to Article 21 as far

13 as -- for instance, charging, some batteries require a

14 five-charge inspection with a 55-second cumulative time

15 limit, but the source testing manual specifies four

16 charges for 75 seconds.

17 That would apply to Batteries 1, 2, 3, and 19 and

18 Battery C, Battery B, 13, 14, 15, and 20 would be the

19 five-charge, 55-second time limit. So that would be

20 according to Article 21.

21 Q. Thanks. I think my question is a little bit

22 different. Is there a document that you are aware of

23 that would show the scenarios when you would follow the

24 source testing manual for observations and the scenarios

25 when you would not follow the source testing manual?

1 training was to last when you started; is that fair?

2 A. Correct.

3 Q. And the training ended when your colleagues were

4 comfortable with your skills; is that fair?

5 A. Well, whenever I was informed that I was an

6 independent inspector.

7 Q. Okay. You didn't have to do any tests or

8 certification before you were able to do that, other

9 than Method 9?

10 A. Correct.

11 Q. You've seen the source testing manual before?

12 A. Yeah.

13 Q. Can you look at Exhibit 22?

14 A. Which volume is that?

15 Q. That would be in Volume 1.

16 A. Okay.

17 Q. And I would like you, sir, to please move to

18 Chapter 109 in that document.

19 A. Okay.

20 Q. And if you can back up to the title page that

21 says "Chapter 109," please. Are you there?

22 A. Yes.

23 Q. Okay. Are you familiar with this section?

24 A. I'm familiar with Chapter 109.

25 Q. Okay. And how did you become familiar with it?

1 A. A separate document? Not that I'm aware of. If

2 there is, I'm not aware of it.

3 Q. Okay. The inspections you do, they are not

4 supposed to comply with Method 303; is that fair?

5 A. Say that again.

6 Q. The inspections you do on a daily basis are not

7 supposed to comply with Method 303?

8 A. There's no specification as far as whether it's

9 supposed to apply or not apply.

10 Q. Okay. Has anybody ever told you that your

11 inspections have to follow Method 303?

12 A. No.

13 Q. Has anybody ever told you that your inspections

14 don't have to follow Method 303?

15 A. No.

16 Q. There are differences between the source testing

17 manual and Method 303; is that fair?

18 A. I would say it's fair. But yeah, it's --

19 Q. Okay. Angela Crowley, the other inspector, was

20 one of the individuals who gave you your training for

21 your position, correct?

22 A. Correct.

23 Q. And that was on-the-job training?

24 A. Correct.

25 Q. And there wasn't any specified period that your

1 A. By reading it.

2 Q. And when was that?

3 A. 2013.

4 Q. Okay. Underneath where it says "Chapter 109," it

5 says, "A determination of visible emissions from coke

6 oven batteries, United States Environmental Protection

7 Agency, 40 CFR, Appendix B, Method 109 as modified by

8 the Allegheny County Health Department Air Quality

9 Program." Do you see that?

10 A. Yeah.

11 Q. Are you familiar with Method 109 from the

12 Environmental Protection Agency?

13 A. I'm not.

14 Q. Fair to say that you've never read it then?

15 A. I don't recall reading Method 109.

16 Q. Okay. Fair to say you have no training on EPA

17 Method 109?

18 A. That would be fair to say, yes.

19 Q. And fair to say then that you are not using EPA

20 Method 109 when you are doing your inspections?

21 A. I'm not familiar with it, so I can't say.

22 Q. Okay. The next page, there's a Section A. Do

23 you see that?

24 A. Yes.

25 Q. And Section A relates to charging, correct?

1 A. Correct.

2 Q. The very last sentence of the charging paragraph
3 says, "Compliance shall be determined by summing the
4 seconds of charging emission observed during each of the
5 four charges;" is that right?

6 A. It does.

7 Q. Okay. And your testimony a few minutes ago was
8 that there are times when you observed five charges; is
9 that correct?

10 A. That's correct.

11 Q. And so there are times when you are not following
12 the exact terms of the source testing manual?

13 A. That's correct.

14 Q. And why is it that you're doing five charges?

15 A. That's because of Article 21. That refers to
16 batteries that were installed or modified from January
17 1st, 1978. They have a different standard.

18 Q. And who told you that?

19 A. It's in Article 21.

20 Q. Okay. Nobody told you that?

21 A. Well, I was made aware of it, but I've also read
22 that.

23 Q. Okay. When were you made aware of it?

24 A. 2013.

25 Q. Any other time?

1 A. Yes.

2 Q. And where did you do that?

3 A. At home.

4 Q. Section C, what does that relate to?

5 A. That's the general door inspection.

6 Q. And is this the procedure that you follow when
7 you do door inspections?

8 A. Yes.

9 Q. Okay. Do you do door inspections on both sides
10 of the B Battery?

11 A. I do not.

12 Q. Which side do you inspect?

13 A. I inspect the pusher side.

14 Q. You don't inspect the coke side?

15 A. I do not.

16 Q. And how long has it been in your practice to not
17 inspect the coke side of B Battery?

18 A. The entire time that I've been with the county.

19 Q. Okay. So you've never done B Battery coke-side
20 inspections since you've been a coke oven process
21 technician?

22 A. Correct.

23 Q. Why is that?

24 A. That's the way I've been trained.

25 Q. And was that by Ms. Crowley?

1 A. 2013. And since then, I've known that.

2 Q. Okay. Have you read it, that section of Article
3 21?

4 A. Yes.

5 Q. When is the last time you read it?

6 A. I can't say for certain, because every once in a
7 while, I will review it, but there's no standard — set
8 standard time period for that.

9 Q. Okay. Was it within the last week?

10 A. I haven't read it within the past week, no.

11 Q. Okay. You haven't seen it within the past week?

12 A. No. I may have seen a section or two of it, but
13 I haven't read it in its entirety.

14 Q. Okay. And when did you see a section or two?

15 A. I can't remember exactly what day it was, but it
16 was recently.

17 Q. Okay. And what was the context?

18 A. It was -- I'm trying to think. I believe it was
19 in relation to charging.

20 Q. Right. And what was the purpose of looking at
21 the charging section of Article 21?

22 A. Just to review it.

23 Q. You just looked at it randomly?

24 A. Yes.

25 Q. In the last week?

1 A. And Beryl Denne.

2 Q. And for the record, who is he?

3 A. He was the senior inspector that was working for
4 the county when I started.

5 Q. Okay. Is he still employed by the county?

6 A. He is not.

7 Q. Okay. Do you know when he stopped working for
8 the county?

9 A. I want to say 2015 or thereabouts. 2015 I think
10 it could be. It seems like it would have been 2015; but
11 if not, then maybe 2016, but I think it was 2015.

12 Q. Okay. The end of Section C for doors includes a
13 calculation. Do you see that?

14 A. Yes.

15 Q. Do you know what that's for?

16 A. It's a calculation — it is a calculation that
17 goes into the formula for calculating the overall door
18 percentage and leaks.

19 Q. Okay. And is that the Department's calculation?

20 A. I believe so.

21 Q. And that's the one the Department uses for doors,
22 not door opacity but for door leaks?

23 A. Well, I can't state if they currently use exactly
24 that or not, but that's the calculation that at least
25 had been used for door calculations.

- 1 Q. And how do you know that?
- 2 A. Just from -- that's what I gathered just from
- 3 working there.
- 4 Q. Okay. So your training was that the calculation
- 5 identified in Section C is for door leak compliance?
- 6 A. Well, I don't know about compliance, but it just
- 7 gives -- well, I don't know about the 10 percent. That
- 8 may not be accurate nowadays. But that was the
- 9 calculation that was used when this source testing
- 10 manual was put together.
- 11 Q. Okay. And you're not sure if this calculation is
- 12 used now?
- 13 A. I can't speak to that.
- 14 Q. Do you have to do any calculations when you are
- 15 inspecting doors?
- 16 A. No, other than adding the total door leaks, but
- 17 that's not --
- 18 Q. And when do you do that adding?
- 19 A. After I inspect the doors, tally up the doors.
- 20 Q. Is it fair to say that the county doesn't do
- 21 anything to audit or check your inspections to make sure
- 22 they are done consistently with the source testing
- 23 manual?
- 24 A. That, I can't say. I don't know.
- 25 Q. Okay. You're not aware of anything that happens?

- 1 A. I don't -- I'm not aware of anything, but I don't
- 2 know for sure.
- 3 Q. Okay. For all your inspections that you do, do
- 4 you time them?
- 5 A. Some are timed, not all of them.
- 6 Q. Okay. Which ones are timed?
- 7 A. Charging and pushing and travel are timed, and we
- 8 keep track of soaking on a stopwatch.
- 9 Q. Okay. I want to talk to you about the door
- 10 inspections that you do. You don't follow any timing
- 11 requirements for door inspections; is that fair?
- 12 A. There's not a particular time limit on a door
- 13 inspection.
- 14 Q. Okay. And how do you know that?
- 15 A. That's how I was trained.
- 16 Q. Okay. And a door inspection is also called a
- 17 traverse sometimes; is that correct?
- 18 A. It could be called a traverse.
- 19 Q. Okay. And that means you are walking from one
- 20 end of the battery to the other end of the battery,
- 21 correct?
- 22 A. Correct.
- 23 Q. There are times when you're doing a door
- 24 inspection and the doors would be blocked by machinery
- 25 and you have to wait for the machinery to move?

- 1 A. Correct.
- 2 Q. Okay. And if this happens, there's nowhere that
- 3 you record how long it takes for the machinery to
- 4 actually move; is that fair?
- 5 A. Fair.
- 6 Q. And there's no requirement that you do that, that
- 7 you record how long it takes for a piece of machinery to
- 8 move, correct?
- 9 A. There's no requirement.
- 10 Q. Okay. And are there times when you're inspecting
- 11 the doors on Batteries 1, 2, and 3 when you would do all
- 12 of the coke side of Batteries 1, 2, and 3 before moving
- 13 to the push side of those batteries?
- 14 A. Yes.
- 15 Q. Okay. And why do you do that?
- 16 A. It is a more efficient way to do it.
- 17 Q. Okay. And has anybody told you that that's a
- 18 proper way to do an inspection?
- 19 A. I was told that you can do it that way.
- 20 Q. Okay. Who told you that?
- 21 A. My trainers.
- 22 Q. That would be Angela Crowley and Ms. Denne (sic)?
- 23 A. Correct.
- 24 Q. Or Mr. Denne?
- 25 A. Correct.

- 1 Q. Okay. Can you look please, sir, at Exhibit 67 on
- 2 page 21? And if you could move to 21 of that document,
- 3 please, sir.
- 4 A. Okay.
- 5 Q. Page 21, is this a door inspection form that you
- 6 filled out?
- 7 A. It appears to be, yes.
- 8 Q. You would fill out one of these door inspection
- 9 forms every time you do a door inspection, correct?
- 10 A. That's correct.
- 11 Q. When you do a door inspection, you inspect for
- 12 two things: leaks and opacity?
- 13 A. Yes.
- 14 Q. Okay. And do you record both whether there is a
- 15 leak and then an opacity reading on the same form?
- 16 A. Yes.
- 17 Q. Okay. When you do an opacity reading, how long
- 18 does that take to do?
- 19 A. Almost instantaneous. It's just a glance.
- 20 Q. Okay, just a glance. Like a blink of an eye?
- 21 A. Well, it's a fraction of a second, I would say.
- 22 Q. Okay. And to do an opacity reading, it takes a
- 23 fraction of a second and then you record the reading on
- 24 this form?
- 25 A. Yes.

1 Q. Okay. And do you record the reading right after
2 you do the reading?

3 A. Yes.

4 Q. Okay. On this form, if we look at the coke side,
5 the first two readings are for Ovens C30 and C32; is
6 that correct?

7 A. Correct.

8 Q. And this would be on the C battery?

9 A. Yes.

10 Q. How far away from the doors are you standing when
11 you are doing this inspection?

12 A. I can't give an exact distance, but it's
13 definitely greater than 25 feet.

14 Q. Okay. And how do you know that?

15 A. I can — my estimation is it's greater than 25
16 feet. It's a good distance from the doors.

17 Q. Okay, so you are estimating?

18 A. Yeah. It's quite a distance from the doors.

19 Q. Okay. You've never done actual measurements to
20 see how far away from the doors you are when you are
21 doing door inspections?

22 A. No.

23 Q. All right. How wide are the coke oven doors?

24 A. Generally, I would say about a foot and a half.

25 Q. Okay. And so if you are more than 25 feet away

1 in looking at doors that are a foot-and-a-half wide, can
2 you see more than one door at the same time?

3 A. I'm — when I do my doors, I do them
4 sequentially, so I look at each door individually. I
5 don't look at more than one door at one time.

6 Q. Okay. So you're more than 25 feet away and
7 you're only looking at one door that's a foot-and-a-half
8 wide?

9 A. That's correct.

10 Q. And you don't see anything on either side of that
11 door?

12 A. I look at a single door.

13 Q. Okay. Do you see anything on either side of it
14 when you do that?

15 A. If you are talking about peripheral vision. But
16 when I'm looking, I'm focusing on one door.

17 Q. I understand that, but I'm asking if you can see
18 other doors besides the door you are focusing on when
19 you are looking?

20 A. Only with peripheral vision.

21 Q. Okay. Do you do anything to just block out the
22 one door? Do you use your hands or any other device?

23 A. No, I just focus on the door that I'm inspecting.

24 Q. Okay. And when you are doing your inspection,
25 you have your entire peripheral vision?

1 A. It's there, but my focus is on a single door.

2 Q. Okay. And so if you're observing the oven door
3 that's C30, would oven door C32 be two doors away?

4 A. That it would, yes.

5 Q. Okay. And when you are doing a reading on Oven
6 C30, would you also be able to see Oven C32 in your
7 peripheral vision?

8 A. It is to a lesser extent.

9 Q. Okay. On the far right column, there are times
10 noted. Are those the times when you took the opacity
11 readings?

12 A. Yes.

13 Q. Okay. And the opacity readings column, what does
14 that represent?

15 A. That's an opacity reading on the door leak.

16 Q. And do you use the EPA Method 109 to do those
17 opacity readings?

18 A. I use Method 9 to do those opacity readings.

19 Q. Okay. And that's the Method 9 that you are
20 certified under?

21 A. Correct.

22 Q. Do you ever deviate from Method 9?

23 A. When I'm doing these readings?

24 Q. Yeah.

25 A. No.

1 Q. Okay.

2 A. I mean, not that I'm aware of.

3 Q. Where is it that you're looking at an oven to do
4 a door leak inspection?

5 A. At the top of the door, between there and the top
6 of the battery.

7 Q. Okay. And is that the area where you are looking
8 for both leaks and for opacity?

9 A. That's the area that I'm looking for opacity.

10 Q. Okay. Where do you look for leaks?

11 A. Anywhere in the door area.

12 Q. So you look in different spots for door leaks and
13 for door opacity?

14 A. That's correct.

15 Q. The form that you fill out for door inspections,
16 that doesn't show where you were standing for any given
17 inspection; is that fair?

18 A. For — are you still referring to the door
19 inspections?

20 Q. Yes.

21 A. No, it does not.

22 Q. Okay. So you don't record the location where you
23 are standing when you do a door inspection for opacity?

24 A. It's not logged on the sheet, no.

25 Q. Right. And you don't record it somewhere else

1 outside of the sheet?
 2 A. Correct.
 3 Q. You've noted on this sheet that the sun is
 4 visible; is that right?
 5 A. Correct.
 6 Q. But you didn't record where the sun was
 7 positioned at the time of your reading; is that fair?
 8 A. Correct.
 9 Q. You didn't record wind direction on this form,
 10 correct?
 11 A. Correct.
 12 Q. And you don't record wind speed?
 13 A. Correct.
 14 Q. You don't record a description of the sky
 15 condition at the time you are doing your inspection,
 16 correct?
 17 A. Not on the door inspection.
 18 Q. Okay. You don't record what was behind any plume
 19 where you are reading opacity doing a door inspection?
 20 A. Correct.
 21 Q. The door inspection you did on the push side, how
 22 long did that take on March 26th, 2018?
 23 A. That took seven minutes.
 24 Q. Okay. And how long did the inspection take on
 25 the coke side?

1 A. Six minutes.
 2 Q. Is there a typical time that it takes for you to
 3 do your door inspections?
 4 A. There is not.
 5 Q. Okay. Does it vary?
 6 A. It does.
 7 Q. And can you give us some sense as to, on the
 8 longer end, how long would a door inspection take?
 9 A. I don't have a hard figure for that.
 10 Q. And what's your best estimation?
 11 A. I really don't -- I can't say. I don't know. I
 12 mean, it just takes as long as it takes.
 13 Q. Right. And so we can see that there at least was
 14 a seven-minute door inspection that was recorded; is
 15 that fair?
 16 A. Yes. That was a half of an inspection, though.
 17 Q. Okay. And do you think there are times when it
 18 takes more than seven minutes to do half of an
 19 inspection of doors?
 20 A. It could, yes.
 21 Q. Okay. Is it fair to say that there are times
 22 when it doesn't take seven minutes to do a traverse of
 23 door inspections?
 24 A. Correct.
 25 Q. What's the purpose of recording the start and end

1 time of your inspection?
 2 A. That's part of the procedure.
 3 Q. What procedure?
 4 A. The procedure I use to inspect doors.
 5 Q. Okay. And where do you find that procedure?
 6 A. That would be -- I can't say for sure, but that's
 7 part of the procedure.
 8 Q. Okay. And are you sure 100 percent that there's
 9 a written procedure that you follow that requires you to
 10 record the start and end time of your doors?
 11 A. I believe it's in the source testing manual.
 12 Q. Okay. The bottom right of this form says "D, C,
 13 and M." Do you see that?
 14 A. Yeah.
 15 Q. D is the door?
 16 A. Yes.
 17 Q. That's the coke oven door?
 18 A. Yes.
 19 Q. C is a chuck door on the coke oven?
 20 A. Yes.
 21 Q. What does M represent?
 22 A. That can be anything other than the door and the
 23 chuck door.
 24 Q. And what would those things be?
 25 A. Anything leaking between the top of the battery

1 and the bench and between both buckstays.
 2 Q. And what would those things be?
 3 A. The buckstays divide each oven, and then the top
 4 of the battery is the top and the bench is the platform
 5 at the base of the door that you walk on.
 6 Q. Okay. And so "miscellaneous" would represent any
 7 buckstays, top of the battery, or the bench?
 8 A. It could be from the brick work, the lentil. It
 9 could be anywhere other than the door and the chuck
 10 door. But that whole area is considered to be the door
 11 area. It could be from anywhere in there.
 12 Q. And so that would represent, M, miscellaneous,
 13 would represent buckstays, the top of the battery, the
 14 bench, the brick work and the --
 15 A. No, not the bench, because that's between the
 16 bench and the top of the battery.
 17 Q. Okay. What's that called?
 18 A. That's the door area.
 19 Q. Okay. That would be a D on this form, correct?
 20 A. The door is the door and the area would be M.
 21 Q. Okay. And so the area between the top of the
 22 battery and the bench, is that the door?
 23 A. That's the door area.
 24 Q. Okay. Would that be a D on this form?
 25 A. That would be an M if it's not the door or the

1 **chuck door.**

2 **Q.** And what are the things that aren't the door or
3 the chuck door? That's what I'm trying to understand,
4 what an M would be.

5 **MR. WILLIS:** Didn't he answer that?

6 **MR. DOWNARD:** Yeah. The brick work, the lentil,
7 and the area adjacent to the buckstays, any of that area
8 that's called the door area other than the door and the
9 chuck door.

10 **HEARING OFFICER SLATER:** So the M is the door
11 area?

12 **MR. DOWNARD:** M would be the door area. But if
13 it's the door itself, you put a D. If it's the chuck
14 door, you'd put a C.

15 **HEARING OFFICER SLATER:** Okay.

16 **BY MR. DAUSCH:**

17 **Q.** And just so it's clear on the record, the M then
18 would represent the buckstays, the brickwork, and the
19 lentils?

20 **A.** Well, the brickwork, anything in that door area
21 that's leaking.

22 **Q.** All right. Are there things other than the
23 buckstays, the brickwork, and the lentil that would be
24 part of the miscellaneous?

25 **A.** It could come through the brickwork. It could

1 **Q.** Okay. Can you look at Exhibit 63 on page 3?

2 **A.** What page did you say.

3 **Q.** It might be the wrong page. I'm sorry, sir. Can
4 you look at Exhibit 69 on page 3?

5 **A.** It would be in this one?

6 **HEARING OFFICER SLATER:** Oh, that would be Volume
7 2.

8 **MR. DOWNARD:** Volume 2, okay.

9 **BY MR. DAUSCH:**

10 **Q.** Are you familiar with this form, sir?

11 **A.** It's a charging inspection form that we use.

12 **Q.** And this is a form that you filled out?

13 **A.** It's not a form that I filled out.

14 **Q.** Is that your name on the top right?

15 **A.** Are you referring to page -- what page?

16 **Q.** Page 3 on Exhibit 69.

17 **A.** That would be me, yes.

18 **Q.** Okay. And this is a charge and inspection form
19 that you filled out on January 4th of this year,

20 correct?

21 **A.** Yes.

22 **Q.** Of 2018?

23 **A.** Yes.

24 **Q.** This would be for Battery C?

25 **A.** Yes.

1 **come through anywhere in that area, yes.**

2 **Q.** All right. Sir, I just want to make sure we have
3 a clear answer as to what M represents on this form.
4 Right now, my understanding is that M could represent
5 one of three different things: the buckstays, the
6 brickwork, and the lentil. Does M represent anything
7 else other than those three things?

8 **A.** All I can say is if there's a leak in that area
9 and it's not the door or the chuck door, then it would
10 be an M.

11 **Q.** In that area, would it be called --

12 **A.** The door area; the top of the battery to the
13 bench; the left buckstay to the right buckstay of that
14 particular oven door.

15 **Q.** Okay. And there's nothing else that it's called
16 other than the buckstays, the brickwork, and the
17 lentils?

18 **A.** Well, if there is -- there may be, but that's the
19 thing that I'm the most familiar with.

20 **Q.** And did you have training on this form?

21 **A.** Did I have training?

22 **Q.** On this form and what these different things
23 mean?

24 **A.** Training, I don't know about training; but that's
25 just my understanding of what these represent.

1 **Q.** And the charging inspection form that we are
2 looking at is a standard form that the Allegheny County
3 Health Department uses, correct?

4 **A.** Correct.

5 **Q.** There is a column in the middle that looks like
6 it has a drawing. Do you see the rectangle?

7 **A.** Yes.

8 **Q.** Did you fill that out?

9 **A.** Yeah, the rectangle is part of this form.

10 **Q.** Can you explain to us what the drawing in the
11 rectangle means?

12 **A.** That would be the top view of the battery, in
13 other words, an aerial.

14 **Q.** And the five circles, what do those represent?

15 **A.** That would be the charging ports on that
16 particular oven.

17 **Q.** Okay, so this is Battery C. There would be five
18 charging ports?

19 **A.** Yes.

20 **Q.** And what does the X represent?

21 **A.** That would be my position.

22 **Q.** Okay. And do you record how far away from the
23 charging ports you're standing?

24 **A.** No.

25 **Q.** Okay. What does the -- it looks like a sideways

1 V to the left side of the rectangle. What does that
2 represent?

3 A. That would just be a wind directional arrow.

4 Q. Okay. And what does that tell us?

5 A. For instance, in this one, the one in general
6 would be coming from the north, more or less, and
7 blowing south.

8 Q. Okay. And how do we position ourselves north and
9 south on this drawing? How do we know which way is
10 north and which way is south?

11 A. The push side would be toward the river and so
12 the one direction would be south, and the other
13 direction would be north going to the right as you are
14 looking at the drawing.

15 Q. And the form says to indicate sun position. Do
16 you see that?

17 A. Yes.

18 Q. Why is it that that sun position is indicated on
19 a charging inspection?

20 A. That is just -- it says right at the top,
21 "Indicate sun position, observation position and wind
22 direction on diagram."

23 Q. Okay. And do you know why it is that you fill
24 out all of those things on this form?

25 A. It gives an indication of the conditions.

1 Q. Yes.

2 A. Five.

3 Q. Okay. Do you always do five charging
4 observations?

5 A. On C Battery, yes.

6 Q. What about the other batteries?

7 A. Some I do five charges, and some I do four
8 charges.

9 Q. Okay. And which ones do you do four charges on?

10 A. Battery 1, 2, 3, and 19.

11 Q. Okay. And all of the other batteries, you do
12 five charge inspections?

13 A. Yes.

14 Q. During the charging inspection, you read opacity?

15 A. No.

16 Q. Okay. What does the line on this sheet, that is
17 page 3 of Exhibit 69, that says max opacity mean?

18 A. Well, I'm sorry, what I mean is we have -- we do
19 enter an opacity reading on these, but opacity is not a
20 requirement to the charge.

21 Q. Okay. Why is an opacity reading taken for
22 charging?

23 A. That, I don't know.

24 Q. Okay. Nobody ever explained that to you?

25 A. No.

1 Q. Okay. Is that a requirement of some sort?

2 A. It's right on the form, and then you fill it out
3 as it's indicated above.

4 Q. Okay. And is that requirement from the source
5 testing manual?

6 A. It's a requirement on this form that we use.

7 Q. Right. Do you know where that requirement comes
8 from?

9 A. Well, I didn't create the form, so...

10 Q. So you don't?

11 A. I'm just filling it out as the form indicates. I
12 didn't create the form.

13 Q. I understand you didn't create it. Do you know
14 where the requirement comes from?

15 A. Whoever created the form, I mean, I don't know
16 where they pulled their information from to put that on
17 there.

18 Q. Okay. Did anybody ever train you as to why
19 that's there?

20 A. On this form?

21 Q. Yeah.

22 A. No, not as far as this form goes.

23 Q. Okay. How many different charging observations
24 did you do on January 4th, 2018?

25 A. On C Battery?

1 Q. When you do that opacity reading, are you using
2 Method 9?

3 A. Yes.

4 Q. The charging process, is there a particular place
5 you have to stand to do an observation?

6 A. It is not specified other than if you can get a
7 clear view.

8 Q. Okay. And what things are you looking for in a
9 charging inspection?

10 A. I'm looking for smoke emissions.

11 Q. Okay. And from where, from what equipment?

12 A. In the -- anywhere from the charging port to
13 the -- anywhere from the Larry car to the caps that are
14 being -- you know, on the oven being charged or, in this
15 case, the assist oven.

16 Well, on C Battery, there would be an assist
17 oven, so you would watch the -- not only the oven being
18 charged, but you would also watch the lids on the assist
19 oven and also the caps, as well as that U tube.

20 Q. And how is it that you know what all different
21 equipment you should be observing during a charging
22 inspection?

23 A. Just from the materials that we have as far as
24 like -- as far as materials, the written materials that
25 we have.

1 Q. What are those?

2 A. I think that would be -- that was the -- let me
3 think. Well, for charging in general, we use the source
4 testing manual.

5 Q. Okay. And does that tell you in the source
6 testing manual what equipment you are supposed to
7 observe for a charging observation?

8 A. Well, it does in general. But on -- C is a newer
9 battery and so it's done a little bit differently.

10 Q. All right. I want to back up, sir. I want to
11 understand where it's written down, the written material
12 that you just described, that tells you what equipment
13 you are supposed to look for for a proper charging
14 inspection?

15 A. I don't recall where I read that.

16 Q. Okay. And are you 100 percent sure that such a
17 document exists?

18 A. Yes.

19 Q. Okay. What does it say if you can't remember
20 what it is?

21 A. From the charging ports, the Larry car, the
22 hoppers, the standpipe caps, the lids on the adjacent
23 oven.

24 Q. And with C Battery, you mentioned a U tube?

25 A. Yes.

1 0:00. That would be your first reading line there. And
2 then every 15 seconds after that, you would enter any
3 other readings there.

4 But on this one, there was no event until 9:10,
5 which you can see to the left there. So at 9:10, an
6 event occurred on 8/23, standpipes on the pusher and the
7 coke side.

8 Q. And for the opacity readings that you do for
9 soaking, you are using Method 9?

10 A. Yes, uh-huh (affirmative.)

11 Q. Okay. And when you do those Method 9
12 observations, how long do they take?

13 A. How long do they take?

14 Q. Yeah.

15 A. For each observation?

16 Q. Yeah.

17 A. It's just a momentary look at it.

18 Q. Okay. And on Oven A23 at the time 00, does this
19 form say that you read a zero opacity?

20 A. That'd be correct, yes.

21 Q. Okay. And after you read a zero opacity, is
22 there a reason why you didn't end your observation?

23 A. Yes.

24 Q. Why is that?

25 A. Because I don't end my observation 'til the oven

1 Q. What is that?

2 A. It's a pipe that connects the oven that's being
3 charged with an adjacent oven.

4 Q. Okay. And why is it that you inspect that for a
5 charging inspection?

6 A. It is being -- the assist oven is being used to
7 increase the draw on that battery so as to handle any
8 smoke that may be coming from it. So it's part of that
9 charge.

10 Q. I want to ask you a little bit about a soaking
11 observation. Can you look at Exhibit 64, page 17? Are
12 you there, sir?

13 A. Yes, yes.

14 Q. Is this a soaking emissions observation form that
15 you filled out?

16 A. Yes, yes, it is.

17 Q. And this would be from March 15th, 2018?

18 A. Yes.

19 Q. When you do a soaking emissions observation, can
20 you tell me how that works?

21 A. It -- well, you would fill in like the -- either
22 the cap opening time or when the standpipe was first
23 observed.

24 And then after two minutes, you would start your
25 readings, which would be entered in the line that says

1 is -- until the soaking is over.

2 Q. Okay. And how long is that?

3 A. It's whenever the oven is pushed.

4 Q. Is there a standard time that you wait for doing
5 a soaking observation?

6 A. No, it's whenever the oven is pushed.

7 Q. Okay. And once that happens, do you stop doing
8 soaking observations?

9 A. Yes.

10 Q. At the top of the form, it says "Sun position."
11 Do you see that?

12 A. Yes.

13 Q. Do you record that?

14 A. Yes.

15 Q. How?

16 A. For instance, if you look at the block to the
17 right of that, the rectangular block -- again, this
18 would be like an aerial view of the battery, and you
19 would have the pusher side up at the top and the coke
20 side down below.

21 And if you look off to the right corner, there's
22 a line that goes to -- a diagram that's used for, like,
23 the sun, representing the sun.

24 Q. Okay.

25 A. So that would be the relationship to the battery.

1 Q. And where are you standing during this
2 observation? Is that recorded on the form?
3 A. That's not recorded on the form, no.
4 Q. Okay. And you're not recording the distance
5 you're standing away from any plume during an
6 observation on this form?
7 A. No, no.
8 Q. You're not recording wind speed?
9 A. I'm not.
10 Q. You're not recording a description of the sky
11 condition?
12 A. Well, I'm -- no, I'm recording sun and I'm
13 recording wind.
14 Q. Okay.
15 A. First two, it was calm; and then in the 8:27
16 reading, there was a wind with the arrow indicating
17 that.
18 Q. And you don't record what's in the background
19 behind any given plume that you're reading?
20 A. I don't record that. I just use a contrasting
21 background.
22 Q. Do you know why it is that you record the sun
23 position on this form?
24 A. No. That's how I was trained.
25 Q. Okay. You're not sure why it is a requirement on

1 A. During one traverse, I observed standpipes and
2 two rows of lids, which would be the one and two rows.
3 Q. Okay.
4 A. And on the second traverse, I would observe lids
5 3, 4, and 5.
6 Q. Okay. So when you do one traverse, you'll
7 observe both the oftakes and half of the lids on a
8 battery?
9 A. Well, I wouldn't say half because it would be 40
10 percent.
11 Q. Okay. And so you'll do -- on one traverse,
12 you'll do the oftakes and certain lids on the battery?
13 A. Two rows, and then on the second traverse, three
14 rows of lids.
15 Q. Okay. Is it fair to say you don't do a lid -- a
16 complete lid inspection for a battery in one single
17 traverse?
18 A. That's correct.
19 Q. Why is it that you do it that way?
20 A. That's the -- that's the procedure that I was
21 taught.
22 Q. By who?
23 A. By my trainers.
24 Q. Okay. And do you know if that procedure is
25 written down anywhere?

1 this form?
2 A. Yeah, I don't -- I was trained on that and that's
3 how I do it.
4 Q. Okay. And you're not sure where that requirement
5 comes from?
6 A. No.
7 Q. Okay. Do you know why it is you'd record a wind
8 direction on this form?
9 A. That's just how I was trained to do it.
10 Q. Okay. You're not sure where that wind direction
11 requirement came from?
12 A. No.
13 Q. There's a large exhibit in front of you that is a
14 stack of papers that's ACHD 25, and I would like you to
15 find the document that's Bates labeled ACHD009430.
16 A. What is that, 9430?
17 Q. That's correct, sir. Do you have that form?
18 A. Yes.
19 Q. Is this a topside inspection form that you filled
20 out?
21 A. Yes.
22 Q. Okay. What's included in a topside inspection?
23 A. It would be the standpipes and the lids.
24 Q. Okay. And do you observe the standpipes and the
25 lids during the same traverse?

1 A. That would be in the source testing manual.
2 Q. Okay. And the source testing manual would tell
3 you that it's okay to do an oftake inspection and
4 certain lid inspections at the same time?
5 A. Yes, you can do that.
6 Q. Okay. What is it that you're recording for your
7 lid inspection?
8 A. On this particular one? That's the -- that would
9 indicate that those lids have been removed because that
10 is a -- those are decarbonizing ovens.
11 Q. Okay. At the bottom of this form, there's a box
12 that says 0, 1, 2, 3, 4 and clear, ignited, black, gray,
13 brown. Do you see that?
14 A. Right.
15 Q. What's the purpose of this box?
16 A. Those are descriptors for the -- when you are
17 doing your inspection and you come across the ovens that
18 are decarbonizing and the capsule will be open and there
19 will either be a flame or not; and if there is smoke,
20 then the descriptors are black, gray, and brown.
21 Q. So those numbers and those descriptors are only
22 for decarbonizing ovens?
23 A. Yes.
24 Q. All right. So the only time you would use those
25 is if you also identified a "D" on this form for

1 decarbonizing?

2 A. Yes.

3 Q. Do you know the purpose of recording that
4 information?

5 A. I do not, other than my department was looking
6 for that information. But other than that, I don't
7 know.

8 Q. Okay. And on the top of this form, you indicate
9 sun position, observation, traverse and wind direction.
10 Do you see that?

11 A. Yep.

12 Q. Do you know the purpose of recording that
13 information?

14 A. Yes, it's asked for on this form.

15 Q. Okay. And other than that, you're not sure?

16 A. I do the form according to what it's asking for.

17 Q. Right. And you're not sure where that
18 requirement came from?

19 A. I didn't make the form, so you'd have to ask
20 whoever made the form.

21 Q. Okay. In that same exhibit, there is a document
22 Bates labeled ACHD1170. Can you find that document,
23 please?

24 A. Okay.

25 Q. Are you on document ACHD1170?

1 anywhere in the source testing manual that requires this
2 type of one-hour inspection?

3 A. No, I do not.

4 Q. There's a drawing on this document. Do you see
5 that?

6 A. Yes.

7 Q. Did you do that drawing?

8 A. Yes.

9 Q. Do you understand the purpose of this drawing?

10 A. It just gives the general layout of the emission
11 point and the observer's position.

12 Q. And do you know why it says "140 degrees" on this
13 drawing?

14 A. Oh, yes.

15 Q. Why is that?

16 A. It's the requirement of Method 9 to have the sun
17 at your back within that 140-degree angle.

18 Q. Okay. And did you make sure that you did that
19 with respect to this inspection?

20 A. Well, being that there was no sun, it was
21 actually not necessary.

22 Q. Okay.

23 MR. DAUSCH: Thank you, sir. That's all I have.

24 MR. DOWNARD: Okay.

25 CROSS-EXAMINATION

1 A. Yes.

2 Q. And this is a document you filled out?

3 A. Yes.

4 Q. What is this document?

5 A. It is a — actually related to a PEC test that
6 was occurring on C Battery, and it was an observation of
7 the bag house for a one-hour period.

8 Q. What was the purpose of doing this observation?

9 A. Just to observe if there were any smoke emissions
10 from the bag house.

11 Q. And were you using any particular method for this
12 observation?

13 A. Method 9.

14 Q. And why was it that you did a one-hour reading?

15 A. That's just a representative sample.

16 Q. Do you know where that hour requirement came
17 from?

18 A. It was generally — it's — one of our
19 enforcement engineers likes us to get this information
20 when they are running a test.

21 Q. Okay. And so one of your enforcement engineers
22 told you to do an inspection for an hour?

23 A. It was a — yeah, it was a request with these
24 sort of things, and we will get the information.

25 Q. And do you know if there is any regulation or

1 BY MR. WILLIS:

2 Q. Gary?

3 A. Oh, yes.

4 Q. How are you doing? Are you okay?

5 A. I'm okay.

6 Q. Okay. It looks like you were getting a little
7 drowsy there. Are you all right to go on?

8 A. It's a long day, but I'm good.

9 HEARING OFFICER SLATER: Mr. Willis, you may
10 proceed.

11 MR. WILLIS: Okay, thank you.

12 BY MR. WILLIS:

13 Q. Gary, how long have you been working at Clairton
14 Works doing observations?

15 A. Doing observations, approximately five years.

16 Q. And in those five years, have you received a
17 complaint about any of your observations? Has anybody
18 from Veolia, in terms of your escort, complained about
19 the observations you were making?

20 A. Complained about the observations I was making?

21 Q. Yeah. Did anybody say, "Hey, Gary, you are doing
22 your observation wrong"?

23 A. Once someone questioned, you know, what I was
24 looking at. That person evidently thought I was — from
25 where that person was standing thought I was looking

1 somewhere else but, you know, I wasn't.

2 Q. But they weren't looking at your actual sheet and
3 saying that that information is wrong?

4 A. No.

5 Q. You work there approximately 52 weeks a year?

6 A. Except for vacation time, yes.

7 Q. Okay. With the exception of the vacation time,
8 have you presented the inspections that you make to your
9 escort at the end of a shift?

10 A. Yes.

11 Q. You do that at the end of every shift?

12 A. I do.

13 Q. Have you gotten any feedback regarding any of
14 those inspections?

15 A. Feedback?

16 Q. Well, has anybody said --

17 A. You mean like a critique, or...

18 Q. Yes.

19 A. No feedback other than if maybe there was --
20 like, for instance, if I had put, like, the wrong date
21 on something, like that, and I didn't catch it and
22 somebody would get it back to me, I would make that
23 correction.

24 But other than that, there's occasions when,
25 like, I would do a door inspection and I would get some

1 face of a coke oven between the bench and the top of the
2 battery and between two adjacent buckstays, including
3 but not limited to, the door, chuck door, door seal,
4 jamb and refractory."

5 Q. Is that your understanding of what the door area
6 is?

7 A. Yes, anything within that area.

8 Q. And this is coming from Article 21?

9 A. Yes.

10 Q. You also indicated that you do inspections for
11 leaks; is that correct?

12 A. Yes.

13 Q. Around the doors?

14 A. Yes.

15 Q. Of a battery?

16 A. Yes.

17 Q. Of each of the ovens?

18 A. Uh-huh (affirmative.)

19 Q. Are you doing inspections for door leaks around
20 each of the ovens?

21 A. Yes.

22 Q. But you do not use Method 303?

23 A. No.

24 Q. How do you know that there was a door leak if you
25 are not using Method 303?

1 high-opacity door readings and then I would get the
2 charge time from my escort. And the next morning, a
3 copy of my inspection would be on the desk with
4 different charge times.

5 Q. What do you mean "different charge times"?

6 A. Revised charge times.

7 Q. You changed the charge times?

8 A. I didn't, no, no. The person at Veolia would
9 come up with different charge times. A person in
10 charge, I should say, a person in charge.

11 Q. That's fine. You said you've reviewed Article 21
12 in the past with respect to how you do your inspections.
13 Have you -- well, let me just ask you, have you reviewed
14 Article 21 in the past?

15 A. Yes.

16 Q. I'm going to hand you a copy of Article 21.

17 Could you read aloud -- this is going to be 2101.20
18 (sic) definitions. Could you read the definition there?

19 HEARING OFFICER SLATER: 2101.20?

20 MR. WILLIS: .10.

21 HEARING OFFICER SLATER: .10?

22 MR. WILLIS: Yes.

23 BY MR. WILLIS:

24 Q. This definition right here, please.

25 A. "The definition for door area means the vertical

1 A. By observing emissions and smoke.

2 Q. So you're seeing something coming out of the
3 door?

4 A. At the door area, yes.

5 Q. And you noted that is a leak?

6 A. Yes.

7 Q. You don't need to follow a method to figure out
8 that that's a leak?

9 A. Correct.

10 Q. The source testing manual, to your understanding,
11 is that a regulation?

12 A. It is not, to my understanding.

13 Q. Have you ever seen emissions on Battery B on the
14 coke side exit the top of the shed?

15 A. Yes.

16 Q. Frequently?

17 A. By the top of the -- I have seen emissions from
18 the shed while being on top of the battery, if that's
19 what you are asking me?

20 Q. Yes.

21 A. Yes.

22 Q. And in terms of the location of those emissions,
23 is it coming from the top of the shed or the sides of
24 the shed?

25 A. It can come from the top of the shed, but many

1 emissions come from what would be considered the side of
2 the shed.

3 Q. Okay. Have you seen access doors on the top of
4 the shed?

5 A. Yes, I have.

6 Q. Have you ever seen the doors open at the top of
7 the shed?

8 A. On occasion, yes.

9 Q. Have you ever seen emissions come out of the open
10 doors?

11 A. Yes, I have.

12 Q. I want to draw your attention back to Exhibit 22,
13 Chapter 109, and in particular, if you look to -- I'm
14 sorry, go ahead and find that.

15 Again, this is three-quarters of the way back.
16 It's going to say "Chapter 109, coke oven inspection
17 procedure."

18 A. Yes.

19 Q. I want to direct your attention to the formula
20 that's under C doors at the end of that.

21 A. Okay.

22 Q. Do you use that formula?

23 A. I don't. I don't use that formula as far as my
24 inspection sheet.

25 Q. Okay. Look at Section B there. There's another

1 Q. But is it safe to -- is it fair to say that you
2 must nonetheless do a complete set of inspections? You
3 have to do soaking. You have to do a soaking
4 inspection?

5 A. Generally, when you do a full inspection, you
6 would do all of the inspections on the forms that we
7 have.

8 Q. So you do one of each of the inspection types?

9 A. Yes.

10 Q. Okay. But it's up to you to determine which one
11 of those types you do on which battery?

12 A. Yes.

13 Q. Okay. Let's say you are on Battery 1 and you see
14 a high-opacity emission coming from further down on a
15 separate battery. Would you have discretion to go and
16 investigate that emission?

17 A. Yes.

18 Q. And would you do an opacity reading or a leak
19 reading based on that emission?

20 A. If I had the opportunity to, I could, yes, uh-huh
21 (affirmative.)

22 Q. If you had the -- if you were set to a schedule
23 and couldn't deviate from that schedule, would you be
24 able to make use of -- would you be able to do an
25 inspection on another battery if you saw an emission

1 formula. Do you use that formula in your inspections?

2 A. Not on my inspection sheet, no.

3 Q. Look at the Section E, next page, top. There's a
4 formula there. Do you use that formula?

5 A. No, not on my inspection sheet.

6 Q. Is it fair to say you are just looking for leaks
7 and opacity?

8 A. That would be fair to say, yes.

9 Q. And with the high-opacity door leaks, are you
10 checking for opacity?

11 A. Yeah.

12 Q. Are you using Method 9 for that?

13 A. Yes.

14 Q. Okay. So there are some occasions where you use
15 Method 9 for opacity and sometimes you are just looking
16 for leaks?

17 A. That is correct, yes.

18 Q. With respect to your ability to use your
19 discretion to pick a battery or pick a location to do
20 your inspection, is there any requirements, even within
21 that discretion, as to what you are supposed to do --
22 let me break this down.

23 You can look at any battery that you want; is
24 that correct?

25 A. That's correct, yes.

1 event?

2 A. Yes.

3 Q. You would be able to?

4 A. Yes.

5 Q. Okay. At any time during your inspection period
6 at Clairton Coke Works, have you ever had an escort that
7 was an employee of U.S. Steel?

8 A. Yes.

9 Q. Do you know when that occurred?

10 A. 2013, possibly 2014.

11 Q. Has it happened recently?

12 A. No.

13 Q. In the past year?

14 A. No.

15 Q. In the past two years?

16 A. Not that I can recall, no.

17 Q. So all of your communication is with the escort
18 who would be an employee of Veolia?

19 A. Yes.

20 Q. With respect to your understanding between the
21 differences between Article 21 and the source testing
22 manual, which do you -- let me formulate the question.

23 If there's a conflict between the provisions of
24 the source testing manual and Article 21, which do you
25 defer to?

1 A. Article 21.
 2 Q. Why is that?
 3 A. Because it's a regulation and the source testing
 4 manual is just a guide.
 5 Q. Okay. Thank you.
 6 HEARING OFFICER SLATER: Mr. Dausch?
 7 MR. DAUSCH: No other questions for this witness.
 8 HEARING OFFICER SLATER: All right, sir, you may
 9 step down.
 10 I think that is a good place to conclude for
 11 today. We will continue with Mr. Dausch's next witness
 12 tomorrow.

(The hearing recessed at 4:14 p.m.)

CERTIFICATE OF REPORTER

1
 2
 3 COMMONWEALTH OF PENNSYLVANIA :
 4 :
 5 COUNTY OF ALLEGHENY :

6 I, Heidi R. Hawk, a Notary Public duly
 7 commissioned and qualified in and for the said
 8 Commonwealth and County, do hereby certify that pursuant
 9 to the notice, the within named persons were sworn by me
 10 to testify to the truth and nothing but the truth; that
 11 the testimony was reduced to writing under my
 12 supervision; that this transcript is a true record of
 13 the testimony given by the witnesses.

14 I further certify that I am neither attorney nor
 15 counsel for, nor related to or employed by any of the
 16 parties to the action in which this hearing was taken;
 17 and further, that I am not a relative or employee of any
 18 attorney or counsel employed by the parties or
 19 financially interested in this action.

20 In testimony whereof, I have hereunto subscribed
 21 my hand and affixed my seal of office this December 26,
 22 2018.

23 My Commission Expires:
 24 March 7, 2019

25 *Heidi Hawk*

NOTARY PUBLIC
 COMMONWEALTH OF PENNSYLVANIA
 NOTARIAL SEAL
 Heidi Hawk, Notary Public
 Cheswick Boro, Allegheny County
 My Commission Expires March 7, 2019
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

	726:18, 739:13, 739:15, 739:24, 755:18, 755:21, 755:24, 756:4, 756:7, 756:11, 756:15, 756:17, 756:20, 767:16, 797:13, 797:16	763:11, 763:12, 775:7, 775:8, 779:10, 788:12 2.5 ^[1] - 643:9 20 ^[6] - 585:22, 585:24, 670:2, 687:13, 687:19, 753:18 2008 ^[7] - 565:3, 565:4, 565:6, 584:23, 623:22, 624:7, 641:14 2009 ^[2] - 588:5, 588:16 2013 ^[6] - 742:2, 749:19, 756:3, 757:24, 758:1, 800:10 2014 ^[3] - 704:25, 705:4, 800:10 2015 ^[4] - 760:9, 760:10, 760:11 2016 ^[1] - 760:11 2017 ^[9] - 590:12, 601:15, 604:16, 644:20, 671:4, 724:9, 730:2, 736:22 2018 ^[17] - 561:1, 561:3, 590:13, 601:15, 610:14, 611:17, 614:5, 653:21, 671:5, 717:14, 721:24, 724:15, 731:10, 769:22, 775:22, 778:24, 782:17 21 ^[37] - 569:17, 623:2, 623:10, 639:21, 640:3, 640:19, 640:24, 645:23, 650:16, 659:15, 660:19, 660:23, 667:25, 668:8, 668:9, 687:1, 687:2, 751:22, 752:10, 752:12, 752:14, 752:21, 753:12, 753:20, 757:15, 757:19, 758:3, 758:21, 764:2, 764:5, 794:11, 794:14, 794:16, 795:8, 800:21, 800:24 2101.20 ^[2] - 794:17, 794:19 2105.21 ^[2] - 660:24, 661:3 22 ^[7] - 625:2, 625:4, 625:5, 640:2, 662:2,	755:13, 797:12 23rd ^[1] - 644:20 24 ^[1] - 683:14 24-hour ^[2] - 678:24, 732:14 2409 ^[1] - 604:2 25 ^[16] - 560:4, 589:14, 589:17, 617:15, 617:19, 626:25, 635:5, 635:15, 635:21, 670:21, 671:11, 765:13, 765:15, 765:25, 766:6, 786:14 26 ^[10] - 560:6, 637:14, 637:16, 637:21, 688:19, 688:22, 688:24, 693:23, 693:24, 699:15 26th ^[1] - 769:22 27 ^[5] - 560:7, 694:5, 696:23, 696:24, 702:8 28th ^[1] - 675:10 2:04 ^[1] - 718:22 2:29 ^[1] - 741:8 2:43 ^[1] - 741:9	697:14, 697:16, 697:21, 697:22, 698:1, 698:4, 698:7, 702:9, 704:22, 704:24, 705:9, 705:22, 708:24, 710:18, 710:21, 710:23, 711:4, 712:1, 712:3, 715:6, 717:7, 717:11, 717:12, 719:11, 719:16, 719:23, 719:25, 720:8, 720:13, 723:10, 723:13, 723:19, 724:1, 724:5, 724:7, 724:17, 725:24, 725:25, 727:25, 729:6, 729:10, 729:18, 729:20, 729:22, 729:25, 730:7, 730:10, 730:13, 730:15, 730:17, 730:23, 730:24, 731:12, 731:16, 733:10, 733:13, 733:15, 733:20, 738:23, 740:14, 750:13, 750:15, 750:18, 750:22, 751:7, 751:16, 754:4, 754:7, 754:11, 754:14, 754:17, 795:22, 795:25 30th ^[3] - 717:14, 721:24, 726:8 3153 ^[2] - 613:21, 613:23 35 ^[8] - 621:14, 621:15, 621:17, 621:19, 621:22, 730:5, 730:6, 730:15 36 ^[2] - 622:8, 622:11 365 ^[2] - 684:4, 684:5
0	109B ^[1] - 626:16 10:25 ^[1] - 617:6 10:35 ^[1] - 617:7 11:38 ^[1] - 670:10 12 ^[6] - 637:19, 638:5, 690:16, 734:22, 734:24, 735:22 12-hour ^[1] - 690:14 12:40 ^[1] - 670:8 12:43 ^[1] - 670:11 12th ^[1] - 614:4 13 ^[1] - 753:18 14 ^[3] - 637:17, 638:3, 753:18 140 ^[1] - 791:12 140-degree ^[1] - 791:17 14591 ^[1] - 694:6 15 ^[7] - 589:5, 673:23, 687:13, 687:19, 693:1, 753:18, 783:2 1550 ^[4] - 608:23, 608:24, 608:25, 609:2 15th ^[1] - 782:17 17 ^[1] - 782:11 17th ^[1] - 653:21 18 ^[4] - 582:21, 635:1, 635:2, 635:14 18-inch ^[1] - 635:21 18th ^[1] - 736:22 19 ^[2] - 753:17, 779:10 1978 ^[1] - 757:17 1995 ^[2] - 594:20, 674:4 1998 ^[3] - 564:16, 565:2, 594:14 1:49 ^[1] - 718:21 1st ^[3] - 611:17, 675:8, 757:17			
1	1 ^[17] - 621:15, 630:2, 630:13, 630:14, 631:6, 653:15, 654:15, 662:3, 693:2, 730:4, 753:17, 755:15, 763:11, 763:12, 779:10, 788:12, 799:13 10 ^[31] - 564:10, 564:14, 589:5, 589:8, 593:9, 596:24, 616:16, 641:16, 643:6, 643:13, 643:16, 643:17, 643:18, 649:21, 657:5, 657:19, 665:2, 665:10, 675:5, 677:16, 677:18, 678:1, 678:3, 678:17, 678:24, 691:4, 706:11, 736:21, 761:7, 794:20, 794:21 100 ^[11] - 577:24, 645:24, 645:25, 646:2, 668:25, 716:5, 743:8, 743:10, 743:12, 771:8, 781:16 1036 ^[2] - 607:10, 607:11 109 ^[31] - 625:4, 625:13, 625:15, 625:17, 625:23, 625:24, 626:5, 626:14, 627:18, 659:9, 662:3, 717:23, 722:14, 722:16, 726:16,			
2	2 ^[25] - 596:6, 596:12, 596:24, 597:1, 614:6, 630:2, 630:13, 630:14, 631:2, 631:4, 631:5, 631:7, 633:17, 641:19, 643:3, 643:11, 643:12, 654:15, 753:17,			
3			3 ^[17] - 610:15, 630:2, 630:13, 630:14, 646:5, 646:7, 654:16, 753:17, 763:11, 763:12, 775:1, 775:4, 775:16, 779:10, 779:17, 787:5, 788:12 30 ^[1] - 651:16 303 ^[112] - 565:8, 565:10, 565:13, 565:17, 565:21, 566:3, 592:6, 601:23, 602:1, 602:7, 616:23, 621:11, 621:20, 621:22, 621:23, 622:1, 622:23, 623:11, 623:15, 623:18, 655:22, 672:10, 672:12, 673:15, 674:1, 674:3, 675:4, 675:12, 676:18, 677:4, 677:12, 689:11, 689:12, 690:12, 690:13, 690:17, 697:12,	
4			4 ^[3] - 654:16, 787:5, 788:12 40 ^[2] - 756:7, 787:9 4th ^[3] - 604:16, 775:19, 778:24	
5			5 ^[2] - 561:1, 787:5 52 ^[1] - 793:5 55-second ^[2] - 753:14, 753:19 558 ^[1] - 560:4	

5th [1] - 561:3	738:25, 739:2, 742:23, 743:3, 749:13, 749:15, 749:17, 749:20, 750:3, 750:6, 751:3, 751:11, 755:9, 767:18, 767:19, 767:22, 780:2, 783:9, 783:11, 790:13, 791:16, 798:12, 798:15 9385 [2] - 611:12, 611:13 9419 [1] - 604:1 9430 [1] - 786:16 9:10 [2] - 783:4, 783:5 9:39 [1] - 591:10 9:50 [1] - 591:11 9th [1] - 610:14	603:5 ACHD009430 [1] - 786:15 ACHD1170 [2] - 789:22, 789:25 ACHD14078 [1] - 699:21 ACHD650 [1] - 603:8 acronym [2] - 563:15, 563:16 action [3] - 574:5, 648:25, 701:22 activity [6] - 586:19, 586:23, 587:1, 587:12, 664:24, 665:1 add [1] - 676:3 added [2] - 691:25, 744:22 adding [2] - 761:16, 761:18 adhere [2] - 663:13, 668:4 adjacent [8] - 583:10, 638:23, 660:11, 773:7, 781:22, 782:3, 795:2 admission [3] - 696:22, 697:2, 697:3 Admitted [1] - 560:2 admitted [6] - 617:12, 617:15, 617:20, 671:12, 694:3, 697:5 advance [1] - 704:19 aerial [2] - 776:13, 784:18 afar [1] - 740:11 afternoon [6] - 672:1, 703:15, 707:18, 707:19, 719:7, 728:25 Agency [3] - 625:24, 756:7, 756:12 ahead [3] - 667:14, 687:11, 797:14 ahold [3] - 600:24, 713:10, 713:14 ain't [1] - 711:15 Air [6] - 607:21, 609:7, 610:13, 611:16, 614:3, 756:8 AK [2] - 676:5, 676:7 alert [4] - 596:6, 596:12, 596:24, 643:12 alerted [1] - 573:15 alerts [3] - 597:1, 643:3, 643:11 alleged [1] - 643:23 Allegheny [2] - 561:5,	561:8, 562:4, 562:18, 564:18, 607:21, 609:5, 610:12, 611:15, 614:2, 665:3, 668:3, 691:12, 699:18, 701:17, 704:4, 741:23, 745:18, 751:14, 756:8, 776:2 allegheny [1] - 704:7 allow [5] - 582:4, 648:24, 694:25, 695:5, 695:17 allowable [6] - 628:16, 637:24, 651:7, 652:1, 652:4, 678:13 allowed [2] - 599:10, 733:18 almost [3] - 603:2, 683:4, 764:19 aloud [1] - 794:17 alternate [1] - 599:21 America [2] - 585:16, 705:18 amount [5] - 574:23, 610:2, 651:12, 678:15, 728:7 ample [1] - 670:20 Angela [7] - 561:18, 609:8, 712:17, 742:10, 747:5, 747:24, 763:22 angela [3] - 561:25, 592:1, 754:19 ANGELA [2] - 561:19, 670:16 angle [2] - 578:5, 791:17 angled [2] - 578:7, 578:8 angles [1] - 578:13 Ann [1] - 723:8 answer [6] - 584:12, 587:22, 588:23, 615:21, 641:3, 669:1, 773:5, 774:3 answering [1] - 702:14 anticipate [3] - 582:12, 582:14, 582:18 anyway [1] - 642:10 anyways [1] - 652:2 Apollo [1] - 706:14 apologize [3] - 604:6, 610:6, 676:12 appeal [1] - 643:24 Appendix [1] - 756:7 application [1] - 663:9 appreciate [1] -	716:19 appropriate [2] - 657:1, 693:20 approve [1] - 690:22 approves [3] - 683:1, 683:8, 695:20 approving [1] - 683:19 ArcelorMittal [4] - 675:25, 676:16, 705:10, 723:17 area [67] - 567:13, 569:15, 570:11, 570:13, 570:24, 574:21, 575:12, 575:14, 575:16, 575:19, 579:3, 580:11, 580:18, 580:19, 580:20, 580:21, 580:22, 583:5, 586:20, 626:24, 633:11, 638:13, 638:18, 649:14, 656:4, 660:11, 660:14, 660:16, 660:20, 661:15, 661:24, 661:25, 662:1, 662:11, 662:14, 662:17, 662:20, 662:24, 662:25, 663:5, 663:12, 735:19, 768:7, 768:9, 768:11, 772:10, 772:11, 772:18, 772:20, 772:21, 772:23, 773:7, 773:8, 773:11, 773:12, 773:20, 774:1, 774:8, 774:11, 774:12, 794:25, 795:5, 795:7, 796:4 areas [16] - 580:23, 580:24, 580:25, 581:6, 626:15, 656:2, 656:14, 656:16, 661:13, 663:10, 665:20, 681:17, 681:21, 714:13, 714:18 arrangement [1] - 675:2 arrow [3] - 666:16, 777:3, 785:16 article [1] - 729:12 Article [34] - 569:17, 623:2, 623:10, 639:21, 640:3, 640:19, 640:24, 645:23, 650:15,
6				
60 [2] - 727:23, 727:24 617 [1] - 560:4 62 [3] - 734:21, 734:24, 735:22 63 [3] - 644:4, 644:6, 775:1 64 [3] - 646:5, 646:7, 782:11 650 [5] - 603:20, 603:22, 603:23, 604:3, 604:10 66 [1] - 653:15 67 [6] - 631:1, 631:5, 633:17, 641:18, 727:9, 764:1 68 [2] - 644:4, 644:6 688 [1] - 560:6 69 [3] - 775:4, 775:16, 779:17 694 [2] - 560:6, 560:7 697 [1] - 560:7	A a.m [6] - 568:6, 591:10, 591:11, 617:6, 617:7, 670:10 A18 [2] - 612:21, 612:23 A20 [2] - 613:8, 613:11 A22 [2] - 613:8, 648:13 A23 [1] - 783:18 A24 [2] - 648:13, 651:16 A26 [3] - 648:14, 651:19, 694:3 A27 [2] - 696:22, 697:5 ability [4] - 659:22, 683:12, 691:20, 798:18 access [6] - 581:8, 581:11, 683:14, 684:13, 695:17, 797:3 acclimated [1] - 595:8 accomplish [1] - 721:7 according [3] - 729:16, 753:20, 789:16 accurate [2] - 684:21, 761:8 ACHD [17] - 560:3, 589:17, 603:4, 603:21, 616:20, 617:19, 631:10, 671:11, 683:24, 688:19, 693:23, 694:5, 696:24, 711:1, 711:3, 713:5, 786:14 ACHD002424 [1] -			
7				
7 [2] - 588:11, 588:20 7/11/17 [1] - 609:7 7/3/17 [1] - 607:23 75 [1] - 753:16				
8				
8 [2] - 588:11, 588:20 8/23 [1] - 783:6 8137 [2] - 610:6, 610:10 8385 [2] - 631:10, 631:11 8:07 [2] - 636:4, 636:7 8:27 [1] - 785:15				
9				
9 [54] - 588:11, 588:20, 594:10, 594:12, 602:9, 602:11, 602:12, 608:7, 608:10, 608:21, 614:8, 616:24, 622:6, 622:9, 622:11, 622:23, 630:22, 630:24, 632:10, 632:13, 650:21, 650:24, 651:2, 673:16, 673:17, 705:1, 705:22, 710:15, 711:16, 716:7, 719:16,				

<p>659:15, 660:18, 660:23, 667:25, 668:8, 668:9, 687:1, 687:2, 751:22, 752:10, 752:11, 752:14, 752:21, 753:12, 753:20, 757:15, 757:19, 758:2, 758:21, 794:11, 794:14, 794:16, 795:8, 800:21, 800:24</p> <p>asbestos/lead [1] - 674:12</p> <p>ashland [1] - 676:5</p> <p>assessment [2] - 586:1, 615:5</p> <p>assign [1] - 744:23</p> <p>assigned [1] - 734:19</p> <p>assignments [1] - 620:8</p> <p>assist [5] - 667:15, 780:15, 780:16, 780:18, 782:6</p> <p>associate [2] - 563:1, 563:2</p> <p>associate's [1] - 562:21</p> <p>assume [4] - 604:3, 621:20, 729:19, 746:24</p> <p>assuming [3] - 590:5, 590:21, 620:20</p> <p>assurance [4] - 689:3, 689:14, 689:20, 689:23</p> <p>attached [3] - 563:2, 688:25, 689:13</p> <p>attachment [2] - 560:6, 688:21</p> <p>attempt [1] - 663:7</p> <p>attempted [1] - 715:4</p> <p>attention [5] - 588:24, 680:2, 740:9, 797:12, 797:19</p> <p>attorney [1] - 741:4</p> <p>attrition [1] - 589:8</p> <p>audit [6] - 624:23, 689:14, 691:21, 693:25, 699:17, 761:21</p> <p>audited [2] - 691:7, 698:6</p> <p>auditing [1] - 702:4</p> <p>auditor [1] - 691:1</p> <p>audits [3] - 691:2, 691:3, 691:4</p> <p>August [1] - 604:16</p> <p>auto [2] - 678:6, 689:3</p> <p>automatic [1] - 677:25</p>	<p>automatically [3] - 678:13, 681:5, 681:10</p> <p>aware [19] - 623:7, 624:22, 625:1, 626:6, 649:17, 665:6, 665:13, 665:25, 716:10, 716:11, 753:9, 753:22, 754:1, 754:2, 757:21, 757:23, 761:25, 762:1, 768:2</p> <p style="text-align: center;">B</p> <p>B2 [1] - 634:13</p> <p>B20 [3] - 605:21, 605:22, 605:24</p> <p>B3 [2] - 634:11, 661:17</p> <p>background [10] - 608:5, 642:25, 653:8, 672:13, 704:2, 743:5, 743:12, 743:13, 785:18, 785:21</p> <p>backstay [3] - 660:4, 660:6</p> <p>backwards [1] - 604:8</p> <p>bad [2] - 596:18</p> <p>bag [2] - 790:7, 790:10</p> <p>banded [1] - 597:19</p> <p>bar [1] - 638:18</p> <p>base [5] - 613:18, 656:14, 656:19, 657:9, 772:5</p> <p>based [8] - 618:15, 628:19, 636:11, 660:2, 664:24, 677:6, 678:14, 799:19</p> <p>basis [19] - 619:9, 622:20, 624:10, 624:12, 683:16, 683:17, 683:19, 685:21, 685:22, 688:7, 722:1, 724:10, 732:24, 742:17, 746:6, 746:14, 747:4, 754:6</p> <p>Bates [7] - 590:4, 590:20, 590:23, 590:25, 694:6, 786:15, 789:22</p> <p>batteries [64] - 565:19, 571:7, 572:25, 573:16, 573:17, 577:8, 577:11, 584:21, 586:6, 587:13,</p>	<p>588:6, 588:7, 588:8, 588:11, 593:9, 615:12, 615:14, 616:10, 616:11, 619:15, 630:9, 630:15, 661:22, 675:5, 677:16, 677:19, 677:22, 677:23, 678:1, 678:3, 678:17, 678:24, 707:23, 707:24, 709:23, 713:21, 720:10, 723:14, 725:9, 727:5, 727:6, 727:10, 727:12, 727:14, 730:8, 730:22, 731:13, 732:17, 734:18, 736:17, 736:21, 737:22, 740:4, 742:18, 742:21, 751:1, 751:6, 751:9, 753:13, 756:6, 757:16, 763:13, 779:6, 779:11</p> <p>Batteries [5] - 630:2, 630:12, 753:17, 763:11, 763:12</p> <p>Battery [65] - 575:8, 575:9, 588:11, 588:22, 593:19, 601:18, 602:10, 602:13, 602:16, 604:18, 605:2, 605:10, 605:11, 606:23, 610:15, 611:17, 614:6, 627:10, 627:12, 627:14, 627:15, 630:14, 644:19, 648:6, 666:11, 667:3, 686:5, 686:10, 687:8, 687:13, 702:8, 712:21, 712:22, 712:25, 713:3, 713:6, 713:9, 713:16, 714:21, 715:1, 715:14, 716:12, 716:25, 727:19, 727:20, 727:22, 733:25, 740:15, 753:18, 759:10, 759:17, 759:19, 775:24, 776:17, 778:25, 779:5, 779:10, 780:16, 781:24, 790:6, 796:13, 799:13</p>	<p>battery [98] - 570:24, 574:14, 577:19, 577:20, 577:21, 578:12, 578:13, 578:17, 578:19, 578:20, 578:22, 578:24, 579:4, 579:6, 579:9, 580:6, 581:3, 581:15, 582:3, 583:7, 596:18, 604:17, 608:2, 610:20, 610:21, 612:21, 615:23, 627:8, 629:9, 633:10, 633:12, 634:21, 634:25, 648:2, 654:10, 654:17, 654:19, 660:15, 661:25, 662:20, 663:3, 663:4, 678:4, 685:4, 685:20, 687:7, 687:8, 690:15, 708:7, 708:9, 711:6, 713:13, 717:2, 720:23, 727:8, 727:19, 730:25, 734:20, 736:12, 740:4, 740:9, 740:10, 740:18, 740:19, 743:22, 750:10, 750:16, 762:20, 765:8, 768:6, 771:25, 772:4, 772:7, 772:13, 772:16, 772:22, 774:12, 776:12, 781:9, 782:7, 784:18, 784:25, 787:8, 787:12, 787:16, 795:2, 795:15, 796:18, 798:19, 798:23, 799:11, 799:15, 799:25</p> <p>became [2] - 719:23, 731:3</p> <p>become [5] - 622:14, 729:22, 730:17, 749:17, 755:25</p> <p>becoming [1] - 729:9</p> <p>bench [19] - 713:21, 713:22, 713:23, 713:24, 713:25, 714:1, 716:25, 734:3, 734:5, 772:1, 772:4, 772:7, 772:14, 772:15, 772:16, 772:22,</p>	<p>774:13, 795:1</p> <p>Beryl [6] - 599:12, 599:18, 691:8, 712:15, 760:1</p> <p>best [6] - 587:17, 677:18, 677:19, 691:20, 692:13, 770:10</p> <p>big [4] - 576:13, 577:11, 604:23, 727:5</p> <p>bigger [1] - 578:3</p> <p>bill [1] - 600:4</p> <p>Bill [1] - 600:5</p> <p>binder [6] - 621:13, 621:14, 631:2, 631:3, 730:3, 734:22</p> <p>Binder [1] - 621:15</p> <p>bit [24] - 568:2, 574:14, 577:7, 586:22, 586:25, 587:2, 587:14, 590:1, 591:23, 599:23, 601:9, 604:8, 610:5, 610:7, 610:17, 625:11, 629:1, 669:24, 672:13, 690:2, 715:23, 753:21, 781:9, 782:10</p> <p>black [6] - 580:14, 582:17, 711:20, 715:24, 788:12, 788:20</p> <p>blank [2] - 612:17, 736:5</p> <p>blink [3] - 633:1, 636:16, 764:20</p> <p>block [5] - 606:7, 606:13, 766:21, 784:16, 784:17</p> <p>blocked [2] - 605:17, 762:24</p> <p>blocks [1] - 629:15</p> <p>blowing [1] - 777:7</p> <p>blueprints [1] - 729:16</p> <p>Bob [1] - 572:7</p> <p>boom [1] - 589:3</p> <p>bottom [9] - 603:3, 603:24, 603:25, 605:19, 638:8, 638:24, 693:4, 771:12, 788:11</p> <p>bound [1] - 668:4</p> <p>box [4] - 610:19, 611:20, 788:11, 788:15</p> <p>breathe [1] - 578:25</p> <p>Brian [2] - 669:21, 671:20</p>
--	--	--	--	---

<p>BRIAN [1] - 671:22 brick [10] - 639:3, 639:6, 639:9, 639:13, 640:8, 640:14, 640:21, 772:8, 772:14, 773:6 brickwork [8] - 773:18, 773:20, 773:23, 773:25, 774:6, 774:16 briefly [1] - 682:22 brown [2] - 788:13, 788:20 bucket [1] - 683:1 buckets [1] - 679:12 buckstay [7] - 639:2, 639:13, 660:8, 660:9, 660:11, 774:13 buckstays [17] - 638:23, 639:3, 639:6, 639:9, 640:8, 640:14, 640:21, 772:1, 772:3, 772:7, 772:13, 773:7, 773:18, 773:23, 774:5, 774:16, 795:2 building [3] - 567:4, 567:15, 619:11 built [2] - 677:20, 694:25 burning [2] - 582:8, 582:17 Burns [2] - 675:25, 681:19 but. [1] - 704:21 button [5] - 678:7, 680:22, 681:1, 681:11, 681:13 byproduct [2] - 582:9, 730:7</p>	<p>659:14, 686:24, 760:25, 761:14 calm [1] - 785:15 Cameron [1] - 729:11 canvas [3] - 576:7, 576:12 cap [10] - 583:3, 583:6, 583:11, 583:16, 583:18, 583:19, 583:22, 613:17, 648:19, 782:22 capable [1] - 701:25 capacity [1] - 705:7 caps [9] - 583:13, 656:16, 656:20, 657:10, 657:15, 711:13, 780:13, 780:19, 781:22 capsule [1] - 788:18 captures [1] - 714:3 car [13] - 577:8, 579:13, 579:14, 579:17, 579:21, 582:16, 586:8, 619:7, 645:7, 747:2, 780:13, 781:21 carbon [1] - 582:9 care [3] - 591:8, 597:4, 617:23 career [1] - 585:12 Carl [4] - 598:5, 598:6, 598:7, 598:11 cars [2] - 645:4, 710:16 case [6] - 664:17, 681:19, 682:3, 718:10, 724:25, 780:15 cases [1] - 683:4 catch [2] - 601:3, 793:21 category [1] - 745:3 caught [3] - 600:16, 651:5, 686:2 causes [1] - 570:2 CCAC [2] - 562:19, 563:17 cell [1] - 681:16 cellular [2] - 682:10, 682:11 center [1] - 654:16 Central [1] - 673:1 certain [13] - 565:21, 580:20, 580:24, 580:25, 633:9, 635:19, 665:19, 681:17, 686:18, 731:5, 758:6, 787:12, 788:4</p>	<p>certainly [1] - 590:15 certainty [1] - 747:17 certification [18] - 565:8, 592:6, 592:10, 594:15, 622:16, 622:22, 624:2, 719:25, 724:11, 730:1, 731:6, 731:12, 749:10, 749:20, 751:8, 751:11, 751:15, 755:8 certifications [5] - 689:5, 689:9, 689:11, 689:12, 712:18 certified [50] - 564:3, 565:10, 565:12, 565:16, 566:2, 594:10, 594:12, 594:13, 618:16, 621:8, 621:24, 622:14, 673:17, 673:22, 673:24, 674:1, 674:3, 677:12, 691:5, 697:12, 697:14, 697:16, 697:18, 704:18, 704:19, 704:22, 704:24, 705:1, 711:16, 711:17, 712:2, 712:12, 716:7, 719:23, 724:5, 724:7, 724:17, 729:23, 730:11, 730:17, 731:3, 731:16, 749:13, 749:17, 750:18, 750:25, 751:2, 751:5, 751:7, 767:20 CFR [1] - 756:7 challenged [1] - 665:7 change [5] - 587:13, 609:13, 609:16, 616:13, 721:18 changed [7] - 564:11, 585:11, 643:9, 680:11, 684:17, 687:21, 794:7 changes [3] - 571:19, 571:23, 692:7 changing [3] - 586:20, 586:23, 680:14 Chapter [17] - 625:4, 625:13, 625:15, 625:17, 625:23, 626:13, 626:14, 626:16, 627:18, 659:9, 662:3,</p>	<p>755:18, 755:21, 755:24, 756:4, 797:13, 797:16 chapter [1] - 625:19 characteristic [1] - 580:12 characteristics [1] - 580:15 charge [23] - 596:18, 633:25, 634:4, 634:10, 634:16, 644:24, 645:2, 737:10, 737:11, 753:14, 753:19, 775:18, 779:12, 779:20, 782:9, 794:2, 794:4, 794:5, 794:6, 794:7, 794:9, 794:10 charged [7] - 634:3, 662:1, 663:11, 735:18, 780:14, 780:18, 782:3 charges [16] - 627:23, 628:2, 628:8, 628:11, 628:16, 628:20, 628:22, 628:23, 720:24, 753:16, 757:5, 757:8, 757:14, 779:7, 779:8, 779:9 charging [61] - 580:21, 593:10, 595:14, 610:16, 610:21, 611:3, 611:9, 619:15, 627:19, 627:22, 628:1, 644:3, 644:14, 644:17, 644:19, 644:22, 645:9, 645:13, 667:8, 667:13, 677:10, 712:9, 724:21, 733:7, 736:15, 736:21, 736:24, 737:11, 737:18, 737:20, 737:21, 738:21, 744:7, 744:9, 753:13, 756:25, 757:2, 757:4, 758:19, 758:21, 762:7, 775:11, 776:1, 776:15, 776:18, 776:23, 777:19, 778:23, 779:3, 779:14, 779:22, 780:4, 780:9, 780:12, 780:21, 781:3,</p>	<p>781:7, 781:13, 781:21, 782:5 Charging [1] - 610:13 chart [1] - 610:17 check [2] - 679:23, 761:21 checked [1] - 748:11 checking [2] - 728:3, 798:10 checks [1] - 748:12 Chemical [1] - 723:23 Cherepko [4] - 692:25, 710:12, 719:1, 719:9 CHERPKO [2] - 719:3, 722:22 cherepko [1] - 722:21 CHMR [2] - 563:3, 563:4 choose [6] - 652:4, 698:3, 720:18, 725:6, 725:9, 733:18 Chuck [4] - 679:22, 682:21, 695:25, 721:14 chuck [19] - 638:9, 638:17, 638:21, 639:2, 639:12, 640:7, 640:14, 640:21, 674:24, 696:2, 771:19, 771:23, 772:9, 773:1, 773:3, 773:9, 773:13, 774:9, 795:3 circle [2] - 656:5, 656:8 circles [1] - 776:14 circumstances [1] - 605:14 citation [1] - 661:2 Citizens [1] - 675:19 City [2] - 675:20, 675:22 Clairton [53] - 566:8, 566:16, 581:24, 584:15, 584:24, 585:2, 593:8, 607:6, 607:23, 609:7, 610:14, 611:17, 614:4, 625:20, 630:5, 675:4, 676:10, 676:11, 676:21, 681:24, 692:21, 697:16, 703:24, 705:9, 705:23, 706:15, 706:19, 706:21, 707:10, 709:3, 720:4, 720:8, 720:21, 723:17,</p>
C				
<p>C-R-O-W-L-E-Y [1] - 562:2 C30 [3] - 765:5, 767:3, 767:6 C32 [3] - 765:5, 767:3, 767:6 calculated [2] - 608:10, 663:9 calculating [1] - 760:17 calculation [9] - 612:24, 760:13, 760:16, 760:19, 760:24, 761:4, 761:9, 761:11 calculations [4] -</p>				

<p>724:19, 724:22, 725:5, 726:25, 727:12, 731:19, 731:23, 733:5, 735:13, 736:12, 742:8, 742:13, 742:14, 743:21, 744:3, 745:23, 752:6, 792:13, 800:6</p> <p>clarify [2] - 585:19, 649:13</p> <p>class [6] - 570:16, 690:17, 712:8, 712:16, 712:19, 730:24</p> <p>classroom [4] - 712:6, 712:7, 730:18, 730:24</p> <p>clean [1] - 695:9</p> <p>cleaned [1] - 567:25</p> <p>clip [1] - 597:17</p> <p>clipboard [1] - 597:18</p> <p>close [5] - 576:8, 585:21, 603:25, 734:9, 734:10</p> <p>closed [3] - 583:18, 583:20, 583:22</p> <p>closest [6] - 578:12, 578:19, 580:7, 580:10, 581:4</p> <p>cloth [1] - 576:4</p> <p>cloud [9] - 678:10, 679:7, 680:18, 680:20, 681:6, 681:10, 682:18, 682:20, 688:7</p> <p>coal [4] - 582:11, 593:22, 593:23, 594:8</p> <p>coke [121] - 564:23, 565:1, 565:19, 567:7, 570:24, 570:25, 578:11, 579:4, 579:8, 579:15, 579:17, 579:24, 579:25, 580:1, 581:3, 581:7, 581:10, 581:23, 582:3, 582:8, 582:11, 582:20, 582:24, 584:21, 594:6, 594:24, 601:18, 602:10, 602:13, 602:15, 604:22, 604:24, 608:3, 610:25, 612:2, 613:10, 613:12, 630:8, 630:12, 630:13, 633:9, 633:18,</p>	<p>633:22, 633:24, 634:21, 634:24, 635:8, 635:14, 635:16, 635:21, 636:19, 637:6, 638:20, 639:1, 642:3, 648:17, 654:5, 654:11, 654:15, 654:19, 654:24, 655:2, 655:9, 661:24, 662:22, 675:24, 676:7, 676:9, 677:3, 686:5, 686:10, 702:9, 710:16, 711:13, 713:2, 713:6, 713:9, 713:13, 713:16, 714:21, 715:1, 715:14, 715:21, 715:25, 716:9, 716:12, 717:1, 720:10, 723:14, 730:8, 730:22, 731:13, 733:25, 740:15, 740:17, 741:25, 742:4, 742:7, 747:21, 752:13, 756:5, 759:14, 759:17, 759:19, 759:20, 763:12, 765:4, 765:23, 769:25, 771:17, 771:19, 783:7, 784:19, 795:1, 796:14, 797:16</p> <p>Coke [12] - 566:8, 584:15, 584:24, 585:2, 607:6, 675:19, 676:21, 692:21, 705:23, 707:10, 726:25, 800:6</p> <p>coke-side [3] - 716:12, 733:25, 759:19</p> <p>coked [4] - 582:6, 582:7, 582:12, 582:15</p> <p>coking [3] - 574:4, 582:21, 594:7</p> <p>cold [1] - 570:1</p> <p>Coleen [4] - 572:9, 574:8, 575:2, 647:20</p> <p>colleague [4] - 597:21, 619:10, 641:10, 747:5</p> <p>colleagues [1] - 755:3</p> <p>collected [1] - 590:5</p>	<p>collecting [2] - 664:3, 690:10</p> <p>collection [2] - 590:3, 678:23</p> <p>Collective [1] - 560:5</p> <p>College [1] - 562:16</p> <p>column [9] - 612:14, 633:25, 736:18, 737:4, 737:8, 737:14, 767:9, 767:13, 776:5</p> <p>combusted [5] - 647:3, 647:4, 649:5, 649:8, 650:20</p> <p>combustion [1] - 715:20</p> <p>comfort [1] - 690:20</p> <p>comfortable [5] - 658:5, 658:13, 679:19, 692:13, 755:4</p> <p>communicate [3] - 684:16, 695:1, 714:10</p> <p>communicated [1] - 684:18</p> <p>communicates [1] - 680:22</p> <p>communicating [1] - 680:20</p> <p>communication [2] - 681:22, 800:17</p> <p>community [1] - 562:16</p> <p>Company [1] - 729:6</p> <p>company [18] - 563:19, 563:21, 564:8, 571:23, 585:10, 672:19, 674:7, 674:8, 688:9, 688:12, 691:18, 694:13, 697:9, 697:10, 698:16, 699:2, 701:6, 723:11</p> <p>compare [6] - 693:12, 698:18, 698:23, 700:12, 702:20, 715:13</p> <p>compared [1] - 678:16</p> <p>comparing [2] - 700:14, 700:21</p> <p>comparison [1] - 728:6</p> <p>compatible [1] - 695:2</p> <p>complained [2] - 792:18, 792:20</p> <p>complaint [2] - 695:12, 792:17</p> <p>complaints [2] - 665:4, 665:14</p>	<p>complete [3] - 567:20, 787:16, 799:2</p> <p>completed [1] - 644:13</p> <p>completely [1] - 743:15</p> <p>completing [1] - 663:6</p> <p>complex [1] - 601:9</p> <p>compliance [26] - 620:18, 628:7, 628:12, 628:19, 659:9, 659:11, 663:8, 668:19, 668:24, 688:13, 688:15, 693:10, 698:10, 699:2, 699:9, 700:4, 700:9, 700:15, 700:17, 700:19, 700:23, 701:1, 701:5, 701:16, 761:5, 761:6</p> <p>Compliance [2] - 627:21, 757:3</p> <p>comply [3] - 752:16, 754:4, 754:7</p> <p>computer [6] - 598:16, 619:12, 680:9, 680:24, 747:12, 748:11</p> <p>concentrating [1] - 740:10</p> <p>concerned [1] - 570:6</p> <p>conclusion [2] - 617:24, 681:3</p> <p>condition [5] - 642:23, 652:7, 653:6, 769:15, 785:11</p> <p>conditions [2] - 582:4, 777:25</p> <p>conduct [2] - 675:4, 713:8</p> <p>confined [1] - 704:19</p> <p>confirm [2] - 573:8, 730:3</p> <p>confirmation [1] - 573:3</p> <p>conflict [2] - 668:7, 800:23</p> <p>confusion [1] - 687:1</p> <p>connect [1] - 578:8</p> <p>connected [7] - 577:19, 578:16, 578:19, 579:1, 579:8, 581:3, 682:12</p> <p>connects [2] - 578:12, 782:2</p> <p>consecutive [2] - 590:4, 628:16</p> <p>consider [1] - 639:13</p> <p>considered [4] -</p>	<p>639:10, 660:16, 772:10, 797:1</p> <p>considering [1] - 649:7</p> <p>consistent [7] - 607:16, 608:9, 609:24, 624:24, 651:6, 718:15, 749:5</p> <p>consistently [4] - 611:8, 621:4, 658:4, 761:22</p> <p>constructing [1] - 586:6</p> <p>consultant [1] - 692:10</p> <p>contact [2] - 674:18, 694:15</p> <p>contacted [1] - 688:14</p> <p>contacts [1] - 680:7</p> <p>context [1] - 758:17</p> <p>continue [14] - 563:18, 591:20, 592:2, 603:6, 606:22, 607:1, 607:8, 607:9, 652:6, 652:12, 662:25, 663:2, 707:25, 711:5</p> <p>continued [2] - 662:18, 670:18</p> <p>continues [1] - 662:17</p> <p>contract [10] - 579:2, 674:15, 674:25, 675:3, 675:9, 675:11, 675:12, 675:18, 676:12, 690:25</p> <p>contracted [6] - 688:15, 691:1, 698:10, 698:12, 700:16, 700:17</p> <p>contractor [5] - 592:9, 592:20, 649:24, 675:20, 692:16</p> <p>contractors [2] - 596:5, 601:24</p> <p>contracts [1] - 675:15</p> <p>contractual [2] - 674:20, 675:1</p> <p>contracting [1] - 785:20</p> <p>control [5] - 689:20, 748:15, 748:20, 748:21, 748:24</p> <p>convenient [1] - 617:25</p> <p>convey [1] - 572:25</p> <p>conveyed [1] - 684:12</p> <p>cool [1] - 579:25</p> <p>coordinate [1] - 601:5</p> <p>copied [2] - 590:13,</p>
---	--	--	--	---

<p>590:16 copies [3] - 567:21, 567:22, 689:8 copy [7] - 597:12, 600:25, 601:2, 601:4, 689:6, 794:3, 794:16 cord [1] - 682:16 corner [2] - 638:8, 784:21 Corporation [1] - 561:4 correction [2] - 601:3, 793:23 corrective [2] - 574:5, 648:25 correctly [2] - 627:24, 679:24 count [7] - 640:7, 640:13, 640:20, 641:7, 645:13, 650:13, 745:5 counted [2] - 612:25, 637:25 counting [3] - 637:25, 716:9, 716:15 counts [1] - 587:17 county [49] - 565:2, 565:3, 565:4, 566:24, 584:25, 585:1, 592:20, 594:24, 595:2, 595:3, 595:16, 597:16, 598:25, 602:6, 616:4, 622:25, 643:14, 643:17, 644:16, 646:10, 674:16, 674:19, 675:13, 683:11, 684:13, 685:11, 685:12, 687:3, 689:2, 691:14, 696:8, 696:10, 699:5, 699:8, 699:13, 700:8, 700:24, 701:4, 702:15, 702:21, 704:6, 722:4, 742:2, 742:5, 759:18, 760:4, 760:5, 760:8, 761:20 County [21] - 561:5, 561:8, 562:4, 562:7, 562:18, 564:18, 607:21, 609:5, 610:12, 614:2, 665:3, 668:3, 671:20, 691:12, 699:18, 701:17, 741:23, 745:18,</p>	<p>751:14, 756:8, 776:2 county's [2] - 592:9, 674:25 couple [9] - 567:9, 592:3, 596:25, 597:1, 691:7, 692:15, 704:20, 717:1, 734:7 course [1] - 680:25 COURT [1] - 589:14 court [8] - 560:9, 561:15, 671:23, 703:11, 719:4, 723:2, 728:22, 741:16 cover [4] - 571:7, 578:24, 616:5, 732:13 covering [2] - 689:5, 694:24 covers [3] - 579:11, 583:11, 677:21 creat [1] - 778:12 create [2] - 778:9, 778:13 created [6] - 646:13, 646:14, 747:14, 747:16, 747:18, 778:15 credits [1] - 704:15 crew [1] - 708:14 criteria [1] - 731:1 critique [1] - 793:17 CROSS [6] - 618:4, 697:7, 716:21, 726:22, 739:22, 791:25 CROSS-EXAMINATION [6] - 618:4, 697:7, 716:21, 726:22, 739:22, 791:25 Crowder [3] - 565:14, 712:14 Crowley [23] - 561:18, 561:23, 561:25, 562:3, 604:6, 609:8, 618:2, 618:6, 625:3, 631:5, 659:4, 669:9, 669:25, 670:13, 670:20, 712:17, 742:10, 742:13, 747:6, 747:24, 754:19, 759:25, 763:22 crowley [1] - 622:8 CROWLEY [12] - 561:19, 585:11, 585:15, 591:17, 591:21, 603:13,</p>	<p>603:21, 603:23, 604:1, 609:1, 669:11, 670:16 Crowley's [1] - 685:13 CS [3] - 610:22, 610:24, 648:16 cumulative [1] - 753:14 curious [1] - 706:12 current [3] - 564:24, 672:7, 674:5 cursorly [1] - 679:17 curtain [4] - 574:22, 575:15, 575:21, 576:23 custom [3] - 606:16, 677:20, 694:25 custom-built [2] - 677:20, 694:25</p>	<p>690:10, 691:11, 691:19, 692:4, 695:1, 695:5, 695:7, 695:10, 695:18, 696:4, 696:8, 696:14, 696:16, 698:18, 700:4, 700:8, 700:19, 700:20, 701:1, 701:4, 701:17, 702:18, 721:22, 747:12, 748:3, 748:7, 748:10, 748:14 dausch [2] - 668:11, 718:11 DAUSCH [53] - 561:10, 590:3, 590:19, 591:12, 591:19, 617:18, 618:3, 618:5, 625:8, 625:11, 625:14, 644:6, 644:8, 658:23, 666:3, 666:5, 667:16, 668:13, 668:16, 669:6, 669:20, 669:23, 670:2, 670:5, 671:9, 693:24, 694:2, 696:23, 696:25, 697:8, 701:10, 703:2, 716:22, 717:25, 718:13, 718:17, 719:1, 719:6, 722:18, 722:25, 723:4, 726:20, 728:15, 728:19, 728:24, 739:18, 740:24, 741:3, 741:13, 741:18, 773:16, 775:9, 791:23 Dausch [11] - 561:10, 617:17, 618:1, 666:2, 696:21, 703:1, 718:24, 722:23, 728:14, 728:18, 741:12 David [1] - 729:2 Davis [3] - 572:9, 574:8, 575:2 davis [1] - 647:24 day-to-day [1] - 674:21 days [16] - 568:16, 675:9, 683:25, 684:1, 684:2, 684:3, 684:4, 690:18, 709:25, 710:1,</p>	<p>710:3, 710:4, 721:4, 724:22, 727:3, 732:1 Dean [4] - 616:14, 686:17, 694:12, 699:18 decarbonizing [6] - 657:15, 657:16, 788:10, 788:18, 788:22, 789:1 Decatur [1] - 673:1 DECEMBER [1] - 561:1 December [1] - 561:3 decide [4] - 629:20, 652:10, 745:8, 745:11 decided [2] - 600:5, 687:12 decision [6] - 599:20, 628:19, 640:17, 652:15, 686:25, 725:12 defer [2] - 668:8, 800:25 definitely [2] - 715:19, 765:13 definition [3] - 794:18, 794:24, 794:25 definitions [1] - 794:18 definitively [1] - 607:5 deflect [1] - 575:15 degré [2] - 562:21, 702:10 degrees [2] - 586:4, 791:12 delete [1] - 687:6 DeLuca [6] - 616:14, 686:17, 687:22, 694:12, 696:11, 699:18 demonstrate [2] - 689:22, 712:9 demonstrations [1] - 620:19 denne [1] - 763:22 Denne [13] - 599:18, 641:12, 645:16, 649:21, 655:14, 657:3, 657:12, 657:18, 691:1, 691:9, 712:15, 760:1, 763:24 denominator [1] - 663:12 department [1] - 789:5 Department [22] - 561:5, 561:9, 564:18, 564:20,</p>
D				
<p>D-O-W-N-A-R-D [1] - 741:21 damage [1] - 570:3 dampener [1] - 613:12 dampened [4] - 612:24, 613:1, 613:16, 664:14 dampened-off [3] - 612:24, 613:1, 613:16 dampening [1] - 663:25 dangerous [6] - 571:14, 713:11, 713:17, 713:18, 713:19, 714:7 dark [7] - 580:16, 618:17, 659:19, 660:1, 714:12, 714:16, 714:18 data [67] - 597:21, 598:4, 598:15, 599:3, 599:15, 600:6, 600:16, 609:23, 610:2, 619:11, 677:7, 677:17, 678:9, 679:1, 679:3, 679:8, 679:18, 679:19, 679:23, 680:14, 680:17, 680:20, 681:1, 681:20, 681:23, 682:5, 682:18, 683:15, 684:10, 684:20, 684:21, 684:24, 685:3, 685:6, 685:7, 685:15, 687:13, 688:2, 688:6,</p>				

<p>564:21, 607:21, 610:13, 611:15, 614:3, 624:18, 665:3, 691:13, 699:19, 701:17, 701:20, 718:9, 741:23, 745:18, 751:14, 756:8, 760:21, 776:3</p> <p>Department's [3] - 609:6, 752:17, 760:19</p> <p>deposition [2] - 721:25, 726:7</p> <p>describe [7] - 576:2, 577:6, 577:18, 689:16, 690:1, 707:8, 713:23</p> <p>described [4] - 568:18, 670:21, 682:22, 781:12</p> <p>description [10] - 577:7, 642:22, 653:5, 659:10, 668:18, 668:23, 669:2, 674:6, 769:14, 785:10</p> <p>descriptors [3] - 788:16, 788:20, 788:21</p> <p>designate [1] - 606:19</p> <p>designation [1] - 606:10</p> <p>desk [1] - 794:3</p> <p>detail [4] - 570:18, 574:13, 574:15, 608:17</p> <p>details [1] - 570:19</p> <p>deteriorate [2] - 574:20, 575:17</p> <p>determinations [5] - 628:13, 693:19, 698:17, 699:3, 701:5</p> <p>determining [5] - 613:5, 614:19, 668:19, 668:24, 699:9</p> <p>Dettinger [1] - 598:7</p> <p>deviate [7] - 698:1, 717:9, 720:15, 726:3, 733:15, 767:22, 799:23</p> <p>device [1] - 766:22</p> <p>devices [1] - 618:22</p> <p>diagnostic [1] - 647:15</p> <p>diagnostics [2] - 647:10, 647:21</p> <p>diagram [2] - 777:22, 784:22</p>	<p>differ [2] - 608:13, 623:18</p> <p>difference [4] - 664:19, 715:15, 728:9, 743:9</p> <p>differences [2] - 754:16, 800:21</p> <p>different [33] - 563:12, 584:5, 586:4, 586:10, 595:12, 596:17, 610:17, 611:9, 621:8, 622:4, 628:22, 652:23, 679:12, 681:16, 691:23, 696:2, 711:19, 732:17, 733:5, 742:21, 746:11, 746:15, 753:22, 757:17, 768:12, 774:5, 774:22, 778:23, 780:20, 794:4, 794:5, 794:9</p> <p>differently [1] - 781:9</p> <p>difficult [1] - 613:21</p> <p>diligence [1] - 674:11</p> <p>dimensionals [1] - 729:15</p> <p>direct [2] - 643:19, 797:19</p> <p>DIRECT [7] - 561:21, 671:24, 703:13, 719:5, 723:3, 728:23, 741:17</p> <p>directing [1] - 702:21</p> <p>direction [9] - 612:1, 642:18, 769:9, 777:12, 777:13, 777:22, 786:8, 786:10, 789:9</p> <p>directional [1] - 777:3</p> <p>disagree [1] - 573:10</p> <p>discovery [1] - 590:22</p> <p>discrepancies [1] - 665:11</p> <p>discretion [10] - 620:9, 620:12, 620:15, 629:18, 721:18, 745:8, 745:11, 798:19, 798:21, 799:15</p> <p>discuss [1] - 584:13</p> <p>discussed [1] - 585:25</p> <p>discussing [2] - 651:7, 694:17</p> <p>discussion [3] - 568:3, 643:20, 671:17</p> <p>discussions [1] -</p>	<p>646:22</p> <p>dispute [1] - 665:22</p> <p>distance [9] - 626:25, 642:14, 652:25, 740:6, 740:7, 765:12, 765:16, 765:18, 785:4</p> <p>divide [1] - 772:3</p> <p>division [1] - 674:11</p> <p>Donnie [1] - 692:25</p> <p>door [187] - 576:18, 581:14, 582:24, 587:3, 587:9, 587:10, 602:20, 604:12, 604:13, 605:1, 626:10, 626:14, 626:24, 627:1, 627:7, 629:1, 629:6, 630:9, 630:13, 630:19, 631:16, 631:17, 631:19, 631:22, 632:14, 632:22, 633:11, 634:16, 636:12, 636:14, 637:9, 637:17, 637:25, 638:3, 638:5, 638:9, 638:13, 638:14, 638:17, 638:20, 638:21, 638:22, 638:23, 638:24, 639:1, 639:2, 639:12, 641:20, 660:11, 660:14, 660:16, 660:20, 661:13, 661:15, 661:24, 661:25, 662:1, 662:11, 662:14, 662:17, 662:20, 662:22, 662:23, 662:25, 663:4, 663:5, 663:10, 663:11, 665:20, 713:11, 713:20, 714:8, 714:11, 715:20, 715:21, 728:3, 728:7, 733:8, 734:19, 737:19, 738:2, 740:8, 744:16, 744:19, 744:22, 744:24, 745:3, 745:6, 750:3, 759:5, 759:7, 759:9, 760:17, 760:22, 760:25, 761:5, 761:16, 762:9, 762:11, 762:12, 762:16, 762:23,</p>	<p>764:5, 764:8, 764:9, 764:11, 765:21, 766:2, 766:4, 766:5, 766:7, 766:11, 766:12, 766:16, 766:18, 766:22, 766:23, 767:1, 767:2, 767:3, 767:15, 768:4, 768:5, 768:11, 768:12, 768:13, 768:15, 768:18, 768:23, 769:17, 769:19, 769:21, 770:3, 770:8, 770:14, 770:23, 771:15, 771:17, 771:19, 771:22, 771:23, 772:5, 772:9, 772:10, 772:18, 772:20, 772:22, 772:23, 772:25, 773:1, 773:2, 773:3, 773:8, 773:9, 773:10, 773:12, 773:13, 773:14, 773:20, 774:9, 774:12, 774:14, 793:25, 794:1, 794:25, 795:3, 795:5, 795:19, 795:24, 796:3, 796:4, 798:9</p> <p>doors [90] - 567:18, 579:6, 579:9, 580:6, 580:7, 580:10, 581:5, 581:7, 581:8, 581:11, 581:12, 581:13, 581:16, 581:17, 581:18, 581:20, 582:10, 586:12, 586:15, 586:18, 586:20, 586:23, 587:6, 587:8, 587:10, 587:13, 593:10, 596:18, 619:15, 619:25, 626:9, 626:19, 629:3, 637:4, 637:5, 637:19, 640:7, 640:8, 640:14, 640:21, 641:23, 661:18, 662:8, 663:8, 677:9, 687:7, 708:15, 708:22, 712:24, 714:1, 714:25, 715:5, 715:24, 717:2, 720:24, 724:21, 733:25, 734:6,</p>	<p>734:9, 734:10, 737:25, 738:7, 738:21, 745:4, 760:12, 760:21, 761:15, 761:19, 762:24, 763:11, 765:10, 765:16, 765:18, 765:20, 765:23, 766:1, 766:3, 766:18, 767:3, 770:19, 771:4, 771:10, 795:13, 797:3, 797:6, 797:10, 797:20</p> <p>double [4] - 593:14, 593:15, 617:23, 654:4</p> <p>double-main [1] - 654:4</p> <p>double-sided [1] - 617:23</p> <p>down [40] - 574:3, 574:19, 574:20, 575:18, 576:15, 576:21, 578:13, 579:14, 582:16, 587:9, 587:12, 587:17, 588:15, 588:16, 596:16, 601:15, 619:10, 634:4, 634:9, 634:19, 638:24, 654:18, 656:18, 669:10, 679:5, 687:15, 703:4, 713:12, 714:1, 717:13, 718:1, 722:21, 728:15, 728:17, 741:1, 781:11, 784:20, 787:25, 798:22, 799:14</p> <p>DOWNARD [5] - 741:15, 773:6, 773:12, 775:8, 791:24</p> <p>Downard [11] - 595:1, 607:13, 614:5, 657:20, 658:1, 658:8, 658:13, 741:14, 741:21, 741:22</p> <p>Downard's [1] - 658:18</p> <p>download [5] - 680:25, 683:12, 684:14, 687:15, 696:7</p> <p>downloadable [1] -</p>
---	--	--	---	---

<p>683:3 downloaded [1] - 684:22 downloading [1] - 680:23 dozen [2] - 596:25, 597:1 drapery [7] - 574:19, 575:7, 575:10, 575:15, 575:21, 576:2, 576:22 draw [2] - 782:7, 797:12 drawing [9] - 666:20, 776:6, 776:10, 777:9, 777:14, 791:4, 791:7, 791:9, 791:13 drive [3] - 567:3, 567:14, 708:7 drop [2] - 645:4, 645:7 dropped [1] - 579:24 drowsy [1] - 792:7 due [1] - 674:11 duly [7] - 561:14, 671:22, 703:11, 719:3, 723:1, 728:21, 741:15 duration [1] - 647:6 duties [1] - 592:23 duty [1] - 675:2 Dvorksy [2] - 710:11, 729:2 Dvorsky [3] - 728:20, 739:20, 740:25 DVORSKY [2] - 728:21, 741:2 Dzurinko [2] - 570:9, 572:10</p>	<p>edit [3] - 601:2, 601:6, 601:7 education [6] - 562:12, 563:18, 673:4, 673:12, 673:13, 704:9 EDWARD [1] - 719:3 Edward [1] - 719:9 effectively [1] - 576:23 efficient [1] - 763:16 eight-hour [1] - 616:1 either [15] - 590:11, 619:9, 640:16, 648:17, 654:24, 658:9, 679:13, 687:3, 743:21, 747:5, 747:23, 766:10, 766:13, 782:21, 788:19 elaborated [1] - 570:16 electronic [6] - 677:6, 677:19, 704:10, 704:11, 704:13, 733:23 elements [1] - 606:5 eliminate [3] - 677:17, 690:4, 691:21 emission [21] - 566:8, 566:11, 566:20, 593:8, 596:17, 601:17, 609:17, 619:22, 639:14, 645:2, 661:12, 681:8, 696:16, 742:21, 749:23, 757:4, 791:10, 799:14, 799:16, 799:19, 799:25 emissions [104] - 564:6, 573:17, 574:21, 575:14, 575:18, 576:24, 577:3, 580:2, 580:3, 580:7, 580:12, 581:5, 581:21, 582:5, 582:13, 582:15, 582:25, 583:14, 583:15, 583:17, 583:19, 583:22, 593:3, 594:5, 602:20, 602:23, 609:6, 612:20, 612:22, 613:4, 614:3, 614:21, 614:22, 618:8, 618:21, 619:14, 619:20, 622:24, 626:10, 626:14, 626:24,</p>	<p>627:22, 631:22, 632:3, 632:6, 632:9, 639:12, 640:7, 640:13, 640:15, 640:20, 641:7, 645:6, 646:7, 647:7, 648:8, 649:6, 650:20, 651:23, 652:20, 656:7, 661:15, 661:23, 662:16, 663:6, 665:19, 667:9, 667:12, 685:24, 710:19, 711:15, 714:3, 714:20, 714:25, 716:2, 730:7, 740:7, 740:11, 740:17, 742:18, 742:20, 743:22, 743:24, 744:10, 744:25, 745:5, 750:10, 750:16, 750:23, 751:1, 751:6, 751:9, 751:16, 756:5, 780:10, 782:14, 782:19, 790:9, 796:1, 796:13, 796:17, 796:22, 797:1, 797:9 emissions.. [1] - 662:11 employ [2] - 697:11, 697:15 employed [2] - 703:23, 760:5 employee [5] - 599:2, 741:22, 800:7, 800:18 employees [20] - 572:12, 572:15, 573:15, 574:6, 584:14, 587:16, 587:19, 587:21, 588:1, 588:4, 588:12, 588:20, 588:21, 588:24, 589:4, 589:7, 665:18, 676:18, 691:23 employer [4] - 677:11, 703:25, 706:6, 706:8 employment [3] - 563:19, 723:9, 729:4 EMS [1] - 706:17 EMT [1] - 704:18 enforcement [6] - 590:9, 643:24, 644:1, 701:22, 790:19, 790:21</p>	<p>engineer [5] - 572:9, 579:3, 646:19, 647:9, 651:8 engineers [2] - 790:19, 790:21 ensure [3] - 677:11, 691:11, 702:5 entail [1] - 562:25 entailed [1] - 563:9 enter [10] - 598:13, 598:14, 609:23, 619:11, 677:7, 678:5, 748:10, 748:14, 779:19, 783:2 entered [4] - 679:11, 679:20, 679:24, 782:25 entering [5] - 600:6, 600:16, 678:9, 680:20, 747:11 entire [12] - 571:9, 636:19, 637:6, 654:18, 654:25, 663:2, 678:23, 725:24, 742:5, 742:14, 759:18, 766:25 entirety [1] - 758:13 environmental [8] - 562:24, 563:8, 563:20, 563:23, 572:9, 646:18, 647:9, 673:9 Environmental [7] - 565:15, 625:24, 704:1, 712:14, 729:5, 756:6, 756:12 EPA [9] - 565:16, 592:7, 626:4, 630:24, 650:24, 739:12, 756:16, 756:19, 767:16 EPA's [5] - 621:11, 622:11, 651:1, 717:22, 749:15 equals [3] - 638:9, 638:10 equipment [13] - 567:2, 569:3, 569:7, 618:23, 629:15, 629:22, 707:12, 723:24, 743:23, 780:11, 780:21, 781:6, 781:12 equivalent [2] - 716:11, 716:12 error [9] - 600:17, 600:19, 600:21, 600:24, 601:5,</p>	<p>601:13, 687:12, 687:19, 688:5 errors [6] - 686:18, 686:22, 687:25, 688:1, 688:2, 688:3 escort [13] - 567:9, 571:14, 572:25, 575:3, 601:4, 685:14, 685:18, 685:19, 792:18, 793:9, 794:2, 800:6, 800:17 escorted [2] - 572:1, 665:18 escorting [2] - 572:13, 572:16 escorts [1] - 571:17 estimate [1] - 727:11 estimating [3] - 618:11, 618:14, 765:17 estimation [2] - 765:15, 770:10 estimations [1] - 742:23 evaluate [3] - 700:3, 700:8, 700:19 evaluates [1] - 688:16 evaluating [4] - 593:2, 700:20, 700:22, 702:19 evaluation [1] - 700:25 event [7] - 572:24, 573:21, 581:21, 583:14, 783:4, 783:6, 800:1 evidently [1] - 792:24 exactly [3] - 598:10, 758:15, 760:23 EXAMINATION [19] - 561:21, 618:4, 659:2, 666:4, 667:20, 668:15, 670:18, 671:24, 697:7, 701:14, 703:13, 716:21, 719:5, 723:3, 726:22, 728:23, 739:22, 741:17, 791:25 example [2] - 574:13, 662:21 examples [1] - 574:18 exceedance [10] - 572:24, 573:20, 574:15, 582:18, 652:10, 659:15, 681:4, 681:7, 698:21, 702:11</p>
E				
<p>e-mail [15] - 685:11, 688:20, 688:24, 688:25, 689:2, 693:4, 693:6, 693:24, 694:9, 694:16, 695:21, 696:4, 696:11, 696:12 E-mail [2] - 560:6, 560:8 e-mails [3] - 685:2, 695:1 Eastman [1] - 723:23 Ed [6] - 646:20, 647:18, 658:11, 692:25, 710:11, 719:1 Ed's [1] - 592:14</p>				

<p>exceedances [10] - 582:1, 636:12, 637:1, 637:7, 637:11, 637:14, 637:21, 637:22, 638:1, 638:5</p> <p>exceeds [1] - 745:7</p> <p>Excel [4] - 619:11, 687:18, 696:5, 747:12</p> <p>except [1] - 793:6</p> <p>exception [2] - 687:8, 793:7</p> <p>excludes [1] - 663:10</p> <p>excluding [1] - 661:25</p> <p>exemption [4] - 646:25, 647:2, 648:24, 664:15</p> <p>exercise [1] - 591:7</p> <p>Exhibit [36] - 560:4, 560:6, 560:7, 617:15, 621:14, 621:22, 622:8, 622:11, 625:2, 625:4, 631:1, 631:5, 633:16, 640:2, 641:18, 644:4, 646:5, 646:7, 653:14, 662:2, 670:21, 671:11, 688:24, 693:1, 699:15, 730:15, 734:21, 734:24, 755:13, 764:1, 775:1, 775:4, 775:16, 779:17, 782:11, 797:12</p> <p>exhibit [6] - 560:5, 589:11, 644:5, 671:9, 786:13, 789:21</p> <p>exhibiting [1] - 663:5</p> <p>EXHIBITS [1] - 560:1</p> <p>Exhibits [2] - 560:2, 560:3</p> <p>exhibits [2] - 560:9, 617:23</p> <p>exist [6] - 620:18, 620:23, 749:1, 749:4, 749:7, 750:9</p> <p>exists [1] - 781:17</p> <p>exit [1] - 796:14</p> <p>expand [1] - 579:1</p> <p>expansion [1] - 578:20</p> <p>expect [3] - 608:16, 657:22, 699:5</p> <p>expectation [2] - 700:24, 701:3</p> <p>experience [2] -</p>	<p>572:8, 690:15</p> <p>expertise [1] - 565:21</p> <p>explain [15] - 583:3, 598:1, 613:14, 614:10, 633:25, 654:13, 663:21, 676:24, 677:15, 684:11, 713:18, 730:21, 731:11, 742:25, 776:10</p> <p>exposure [1] - 585:24</p> <p>extended [1] - 574:4</p> <p>extensive [1] - 676:2</p> <p>extent [2] - 606:25, 767:8</p> <p>exterior [1] - 581:9</p> <p>eye [3] - 618:8, 636:16, 764:20</p> <p>eyes [2] - 618:25, 744:1</p>	<p>716:17, 720:15, 722:11, 722:13, 722:14, 726:1, 730:11, 733:19, 742:18, 749:5, 749:8, 752:24, 753:2, 754:4, 754:17, 754:18, 755:1, 755:4, 756:14, 756:16, 756:18, 756:19, 761:20, 762:11, 763:4, 763:5, 768:17, 769:7, 770:15, 770:21, 787:15, 798:6, 798:8, 799:1</p> <p>fairly [1] - 700:21</p> <p>familiar [18] - 565:7, 630:2, 630:4, 631:5, 631:14, 644:11, 666:10, 667:3, 667:6, 727:20, 735:1, 755:23, 755:24, 755:25, 756:11, 756:21, 774:19, 775:10</p> <p>familiarization [1] - 731:15</p> <p>far [18] - 595:13, 603:1, 603:4, 608:3, 633:24, 644:23, 734:6, 736:18, 753:12, 754:8, 765:10, 765:20, 767:9, 776:22, 778:22, 780:23, 780:24, 797:23</p> <p>fashion [1] - 616:9</p> <p>feasible [2] - 616:1, 616:5</p> <p>February [2] - 611:17, 705:4</p> <p>federal [2] - 710:24, 750:15</p> <p>feedback [3] - 793:13, 793:15, 793:19</p> <p>feet [13] - 626:25, 635:5, 635:15, 635:21, 642:3, 717:1, 717:4, 734:7, 734:8, 765:13, 765:16, 765:25, 766:6</p> <p>fewer [5] - 587:19, 587:21, 595:17, 595:19, 595:20</p> <p>Fi [1] - 682:12</p> <p>field [7] - 577:24, 577:25, 578:1,</p>	<p>690:10, 690:24, 730:18</p> <p>fields [1] - 577:22</p> <p>figure [2] - 770:9, 796:7</p> <p>file [3] - 597:19, 619:11, 696:13</p> <p>fill [25] - 607:14, 619:2, 631:19, 641:23, 649:17, 651:3, 725:1, 725:21, 734:15, 735:5, 735:8, 735:25, 736:1, 736:2, 736:7, 736:8, 746:6, 746:8, 746:14, 764:8, 768:15, 776:8, 777:23, 778:2, 782:21</p> <p>filled [12] - 633:16, 646:8, 653:16, 653:20, 735:23, 764:6, 775:12, 775:13, 775:19, 782:15, 786:19, 790:2</p> <p>filling [4] - 650:10, 736:4, 737:2, 778:11</p> <p>Filter [6] - 563:22, 565:5, 585:6, 585:9, 585:14, 585:15</p> <p>final [8] - 680:15, 686:25, 690:6, 698:20, 700:23, 703:8, 729:16, 738:13</p> <p>finalized [1] - 690:8</p> <p>finally [2] - 564:12, 687:5</p> <p>finish [7] - 562:21, 591:13, 597:10, 610:2, 669:17, 669:25, 736:6</p> <p>finished [4] - 669:16, 729:14, 731:2, 734:13</p> <p>fire [2] - 706:17, 740:8</p> <p>fireman [1] - 704:18</p> <p>firm [1] - 693:9</p> <p>five-charge [2] - 753:14, 753:19</p> <p>five-minute [2] - 637:6, 637:13</p> <p>fix [2] - 586:7, 586:18</p> <p>fixed [3] - 574:22, 574:23, 575:20</p> <p>fixing [2] - 586:20, 586:23</p> <p>flame [28] - 576:7,</p>	<p>576:12, 614:13, 614:14, 614:18, 614:19, 614:20, 614:21, 614:22, 614:23, 615:1, 615:2, 615:3, 647:3, 649:7, 649:10, 649:18, 650:3, 650:5, 650:12, 650:13, 788:19</p> <p>flame-resistant [2] - 576:7, 576:12</p> <p>flames [1] - 715:21</p> <p>flange [4] - 613:17, 656:15, 656:19, 657:9</p> <p>flat [1] - 578:6</p> <p>flip [2] - 603:8, 631:6</p> <p>flowed [1] - 576:11</p> <p>fluctuations [1] - 587:24</p> <p>flue [12] - 583:3, 583:4, 583:6, 583:7, 583:11, 583:12, 583:13, 583:16, 583:18, 583:19, 583:22</p> <p>flues [4] - 583:5, 583:8, 583:9, 583:10</p> <p>focus [5] - 633:16, 633:24, 704:11, 766:23, 767:1</p> <p>focuses [1] - 674:11</p> <p>focusing [2] - 766:16, 766:18</p> <p>folder [1] - 597:18</p> <p>follow [37] - 623:11, 623:13, 625:19, 627:3, 627:12, 627:16, 628:5, 629:2, 640:11, 697:22, 698:4, 717:11, 717:12, 720:19, 721:16, 725:16, 730:14, 732:25, 733:3, 733:20, 739:9, 739:15, 752:19, 752:20, 752:25, 753:1, 753:3, 753:6, 753:10, 753:23, 753:25, 754:11, 754:14, 759:6, 762:10, 771:9, 796:7</p> <p>foot [3] - 765:24, 766:1, 766:7</p> <p>foot-and-a-half [2] - 766:1, 766:7</p> <p>football [3] - 577:22, 577:24, 578:1</p>
F				
<p>face [5] - 570:1, 638:16, 639:4, 660:10, 795:1</p> <p>facilities [10] - 566:18, 595:8, 595:15, 675:23, 676:10, 705:12, 727:5, 728:1, 728:4, 728:7</p> <p>facility [31] - 563:7, 566:12, 567:3, 567:8, 567:16, 569:14, 571:5, 571:6, 571:14, 571:18, 572:16, 584:19, 586:1, 586:11, 586:17, 596:2, 596:3, 596:16, 607:22, 659:11, 675:5, 676:7, 676:15, 677:17, 691:24, 703:24, 705:10, 715:15</p> <p>fact [2] - 647:6, 681:18</p> <p>failed [2] - 617:10, 676:12</p> <p>fair [58] - 577:9, 577:10, 599:8, 600:5, 604:21, 605:21, 622:17, 624:10, 626:2, 628:6, 628:24, 632:12, 635:8, 645:20, 645:21, 651:11, 651:13, 666:6, 685:23, 699:4, 699:10, 701:2, 701:8, 716:8,</p>				

<p>force [1] - 580:17 foreman [1] - 685:20 foreman's [1] - 708:11 forget [1] - 712:16 formal [7] - 562:12, 624:5, 673:4, 673:12, 673:13, 704:8, 704:16 format [3] - 696:2, 696:4, 696:9 formula [10] - 663:10, 687:20, 760:17, 797:19, 797:22, 797:23, 798:1, 798:4 formulas [2] - 687:18, 687:20 formulate [1] - 800:22 forth [3] - 583:11, 686:23, 687:5 fourteen [1] - 637:10 fourths [1] - 625:12 fraction [2] - 764:21, 764:23 free [1] - 707:25 freezes [1] - 570:1 frequently [1] - 796:16 Friday [1] - 710:5 friend [1] - 706:18 front [4] - 621:13, 712:4, 730:4, 786:13 frozen [1] - 570:3 fugitive [3] - 742:21, 743:22, 750:16 full [7] - 561:23, 719:8, 723:7, 732:14, 741:19, 742:8, 799:5 fundamentally [1] - 696:16</p>	<p>gary's [1] - 600:21 Gas [1] - 675:19 gas [1] - 570:25 gases [1] - 570:24 gathering [1] - 649:24 GD [1] - 729:16 gear [2] - 567:5, 567:6 gearing [1] - 595:10 generally [14] - 674:7, 674:8, 677:1, 677:2, 677:3, 683:4, 683:7, 685:19, 721:7, 729:13, 748:25, 765:24, 790:18, 799:5 generate [1] - 687:17 generating [1] - 691:19 generators [1] - 723:24 Gino [1] - 712:15 glance [3] - 624:11, 764:19, 764:20 goal [4] - 577:25, 695:6, 695:7 GOD [1] - 567:21 goose-necks [3] - 656:16, 656:20, 657:10 grab [1] - 708:2 graded [1] - 711:22 graduate [4] - 672:23, 672:25, 673:10, 704:14 Gradwalt [1] - 592:13 gray [2] - 788:12, 788:20 grayed [1] - 736:15 grayed-out [1] - 736:15 greenewald [4] - 703:9, 703:23, 716:23, 718:6 Greenewald [3] - 692:25, 703:20, 731:22 GREENEWALD [4] - 703:10, 716:20, 718:2, 718:4 ground [9] - 577:14, 577:16, 578:4, 578:9, 578:10, 578:11, 578:14, 602:17 groundwater [2] - 563:11, 564:1 group [3] - 674:14, 678:19, 678:23 guess [7] - 578:25, 579:1, 589:5, 645:4,</p>	<p>647:9, 673:23, 695:11 guidance [1] - 649:16 guide [5] - 662:22, 752:18, 752:20, 752:21, 752:22 guideline [1] - 640:10 Gulf [1] - 563:6 guy [1] - 570:5</p>	<p>691:13, 699:18, 701:17, 741:23, 745:18, 751:14, 756:8, 776:3 hear [3] - 665:11, 685:13, 707:6 heat [5] - 583:6, 583:7, 583:8, 583:10, 594:5 heavy [3] - 576:6, 576:11, 723:24 height [1] - 577:12 hi [3] - 716:23, 723:5, 723:6 high [25] - 562:8, 562:10, 562:12, 634:6, 634:8, 634:10, 634:15, 634:18, 636:6, 636:11, 637:11, 637:19, 637:24, 638:5, 641:20, 641:23, 672:21, 672:22, 672:25, 704:3, 704:8, 745:2, 794:1, 798:9, 799:14 High [2] - 562:11, 673:1 high-opacity [10] - 634:18, 636:6, 637:11, 637:19, 638:5, 641:20, 641:23, 794:1, 798:9, 799:14 higher [2] - 577:20, 578:4 hill [1] - 643:4 Hills [1] - 562:11 hillside [6] - 595:23, 596:4, 596:8, 596:16, 597:2, 643:10 hired [4] - 592:21, 599:24, 623:22, 624:6 hiring [4] - 587:25, 589:2, 589:3, 589:6 historically [1] - 687:4 hit [9] - 678:7, 680:21, 681:11, 681:13, 681:18, 681:20, 682:21, 682:23, 682:24 hits [1] - 683:2 hitting [1] - 681:1 holes [3] - 580:23, 580:24, 581:1 holidays [2] - 684:7, 684:8 home [2] - 680:9, 759:3</p>	<p>honestly [4] - 581:16, 587:23, 650:19, 658:17 hopper [1] - 645:7 hoppers [2] - 645:4, 781:22 hot [10] - 579:13, 579:14, 579:15, 579:24, 586:9, 588:7, 588:9, 588:11, 588:15, 710:16 hour [8] - 574:5, 616:1, 669:23, 790:7, 790:14, 790:16, 790:22, 791:2 hours [6] - 574:5, 582:22, 664:22, 664:23, 683:14, 690:16 house [2] - 790:7, 790:10 huge [1] - 576:14 hundred [2] - 743:18, 747:17 hundreds [1] - 590:25 hung [1] - 576:18 hydrostatic [1] - 729:15</p>
<p style="text-align: center;">G</p> <p>G-R-E-E-N-E-W-A-L-D [1] - 703:22 gaps [1] - 578:20 garage [2] - 576:17, 577:8 GARY [1] - 741:15 gary [1] - 595:1 Gary [17] - 595:2, 595:5, 599:24, 600:7, 600:14, 607:13, 609:21, 609:23, 611:6, 614:5, 619:10, 675:24, 741:13, 741:21, 792:2, 792:13, 792:21 Gary's [5] - 598:19, 598:20, 598:22, 600:24, 601:13</p>	<p style="text-align: center;">H</p> <p>H-A-R-R-I-N-G-T-O-N [1] - 672:6 Haines [2] - 592:13, 692:25 half [12] - 603:2, 655:5, 655:9, 655:18, 729:8, 765:24, 766:1, 766:7, 770:16, 770:18, 787:7, 787:9 Hallas [2] - 722:25, 723:8 HALLAS [2] - 723:1, 726:21 hallas [1] - 728:16 handwritten [3] - 619:2, 619:6, 725:22 hang [3] - 575:12, 579:5, 661:8 hanging [1] - 612:17 Harbor [2] - 675:25, 681:19 hard [4] - 576:3, 576:10, 714:4, 770:9 Harmarville [1] - 563:6 Harrington [5] - 669:22, 671:21, 672:2, 697:9, 703:4 HARRINGTON [2] - 671:22, 703:5 hat [1] - 567:7 Hazmat [2] - 704:18, 706:17 HAZWOPER [2] - 563:9, 563:13 head [2] - 587:17, 711:11 headquarters [2] - 672:20, 679:2 health [2] - 570:6, 707:3 Health [19] - 561:5, 561:9, 564:18, 564:20, 564:21, 607:21, 609:5, 610:12, 611:15, 614:2, 665:3,</p>	<p>647:9, 673:23, 695:11 guidance [1] - 649:16 guide [5] - 662:22, 752:18, 752:20, 752:21, 752:22 guideline [1] - 640:10 Gulf [1] - 563:6 guy [1] - 570:5</p>	<p>691:13, 699:18, 701:17, 741:23, 745:18, 751:14, 756:8, 776:3 hear [3] - 665:11, 685:13, 707:6 heat [5] - 583:6, 583:7, 583:8, 583:10, 594:5 heavy [3] - 576:6, 576:11, 723:24 height [1] - 577:12 hi [3] - 716:23, 723:5, 723:6 high [25] - 562:8, 562:10, 562:12, 634:6, 634:8, 634:10, 634:15, 634:18, 636:6, 636:11, 637:11, 637:19, 637:24, 638:5, 641:20, 641:23, 672:21, 672:22, 672:25, 704:3, 704:8, 745:2, 794:1, 798:9, 799:14 High [2] - 562:11, 673:1 high-opacity [10] - 634:18, 636:6, 637:11, 637:19, 638:5, 641:20, 641:23, 794:1, 798:9, 799:14 higher [2] - 577:20, 578:4 hill [1] - 643:4 Hills [1] - 562:11 hillside [6] - 595:23, 596:4, 596:8, 596:16, 597:2, 643:10 hired [4] - 592:21, 599:24, 623:22, 624:6 hiring [4] - 587:25, 589:2, 589:3, 589:6 historically [1] - 687:4 hit [9] - 678:7, 680:21, 681:11, 681:13, 681:18, 681:20, 682:21, 682:23, 682:24 hits [1] - 683:2 hitting [1] - 681:1 holes [3] - 580:23, 580:24, 581:1 holidays [2] - 684:7, 684:8 home [2] - 680:9, 759:3</p>	<p style="text-align: center;">I</p> <p>idea [5] - 576:13, 596:3, 685:24, 727:4, 728:9 identification [2] - 663:4, 663:5 identified [5] - 648:3, 648:13, 687:21, 761:5, 788:25 identifies [1] - 730:15 idle [5] - 588:7, 588:8, 588:9, 588:11, 588:15 ignited [1] - 788:12 imagine [1] - 580:8 immediately [1] - 663:7 implemented [1] - 692:3 important [2] - 608:5, 659:4 in-class [1] - 730:24 in-process [1] - 679:18 inappropriate [1] - 698:15 inches [3] - 635:1, 635:2, 635:14</p>

<p>include [9] - 639:1, 668:19, 668:24, 720:23, 720:25, 736:11, 738:1, 738:9, 738:15</p> <p>included [3] - 622:16, 692:1, 786:22</p> <p>includes [4] - 626:9, 653:23, 693:24, 760:12</p> <p>including [2] - 657:7, 795:2</p> <p>incorporated [1] - 590:17</p> <p>Incorporated [1] - 729:5</p> <p>increase [1] - 782:7</p> <p>increments [1] - 743:8</p> <p>independent [2] - 700:25, 755:6</p> <p>INDEX [1] - 560:1</p> <p>Indiana [5] - 672:17, 673:7, 675:21, 676:1, 681:19</p> <p>Indianapolis [5] - 672:16, 673:3, 675:19, 675:20, 675:23</p> <p>Indicate [1] - 777:21</p> <p>indicate [5] - 665:19, 669:18, 777:15, 788:9, 789:8</p> <p>indicated [3] - 777:18, 778:3, 795:10</p> <p>indicates [1] - 778:11</p> <p>indicating [1] - 785:16</p> <p>indication [2] - 666:19, 777:25</p> <p>indicative [1] - 609:10</p> <p>individual [2] - 706:23, 710:10</p> <p>individually [1] - 766:4</p> <p>individuals [4] - 565:20, 592:16, 676:24, 754:20</p> <p>informal [1] - 624:8</p> <p>information [33] - 567:11, 597:11, 608:3, 608:6, 608:20, 615:21, 628:21, 633:17, 645:19, 645:22, 646:1, 649:24, 649:25, 664:3, 672:14, 684:11, 685:10, 698:20, 698:23, 702:22, 725:19, 733:22, 734:17, 736:7,</p>	<p>737:12, 746:6, 778:16, 789:4, 789:6, 789:13, 790:19, 790:24, 793:3</p> <p>informed [1] - 755:5</p> <p>initial [1] - 691:6</p> <p>initials [2] - 737:1, 737:3</p> <p>insight [1] - 686:21</p> <p>inspect [21] - 565:19, 615:12, 620:10, 628:8, 678:3, 678:24, 708:14, 708:22, 725:10, 732:23, 733:2, 733:7, 759:12, 759:13, 759:14, 759:17, 761:19, 764:11, 771:4, 782:4</p> <p>inspected [2] - 595:15, 676:5</p> <p>inspecting [15] - 585:21, 593:19, 595:9, 677:8, 677:9, 678:17, 729:14, 734:5, 744:5, 744:6, 751:18, 752:12, 761:15, 763:10, 766:23</p> <p>inspection [164] - 567:20, 590:5, 593:6, 597:5, 597:14, 598:17, 604:12, 604:15, 604:21, 604:25, 607:9, 607:12, 611:4, 611:16, 613:3, 613:7, 615:11, 615:13, 615:23, 617:15, 619:3, 619:6, 620:15, 620:18, 620:23, 629:8, 629:12, 629:13, 631:16, 631:19, 632:2, 632:14, 633:15, 635:9, 635:13, 635:18, 636:2, 636:19, 637:6, 637:13, 640:9, 641:18, 641:19, 641:20, 642:12, 644:14, 644:19, 644:23, 645:10, 645:13, 648:5, 651:2, 651:5, 652:5, 653:15, 653:23, 653:24, 655:1, 655:4, 655:6,</p>	<p>655:8, 655:10, 655:18, 655:24, 656:3, 657:1, 657:10, 657:19, 657:20, 660:19, 664:25, 667:1, 667:8, 669:19, 679:5, 679:10, 679:16, 681:1, 681:3, 681:24, 683:9, 683:19, 685:15, 690:16, 695:17, 705:14, 705:25, 707:9, 708:25, 711:3, 711:8, 715:11, 721:9, 721:10, 726:5, 729:16, 736:11, 744:5, 744:6, 744:22, 745:4, 746:9, 746:15, 747:6, 747:10, 748:13, 749:1, 750:15, 752:7, 753:14, 759:5, 762:13, 762:16, 762:24, 763:18, 764:5, 764:8, 764:9, 764:11, 765:11, 766:24, 768:4, 768:17, 768:23, 769:15, 769:17, 769:19, 769:21, 769:24, 770:8, 770:14, 770:16, 770:19, 771:1, 775:11, 775:18, 776:1, 777:19, 779:14, 780:9, 780:22, 781:14, 782:5, 786:19, 786:22, 787:16, 788:3, 788:7, 788:17, 790:22, 791:2, 791:19, 793:25, 794:3, 797:16, 797:24, 798:2, 798:5, 798:20, 799:4, 799:5, 799:8, 799:25, 800:5</p> <p>Inspection [1] - 610:13</p> <p>inspections [190] - 563:9, 563:10, 566:8, 566:11, 566:21, 567:16, 584:24, 585:2, 585:8, 587:20, 590:8, 592:6,</p>	<p>592:23, 595:17, 595:22, 598:15, 598:18, 601:16, 601:17, 601:23, 604:13, 605:3, 607:5, 616:9, 616:10, 616:23, 616:24, 618:6, 618:21, 619:14, 619:23, 619:25, 620:13, 620:24, 621:1, 623:2, 623:8, 623:10, 624:24, 625:19, 626:11, 627:7, 628:2, 628:7, 628:10, 629:2, 629:3, 629:6, 630:9, 630:13, 631:17, 631:22, 633:21, 635:4, 635:7, 635:22, 635:25, 641:7, 643:8, 643:12, 644:17, 646:3, 653:14, 656:21, 658:2, 658:5, 658:14, 659:13, 665:5, 665:7, 665:12, 665:15, 668:21, 671:3, 675:4, 676:9, 676:21, 676:25, 677:4, 677:7, 686:6, 686:19, 689:20, 689:23, 689:24, 690:22, 692:14, 692:21, 693:16, 693:17, 697:14, 697:16, 697:19, 702:2, 702:5, 705:9, 707:22, 709:23, 710:3, 710:14, 710:21, 712:9, 712:22, 712:24, 713:2, 713:6, 713:9, 717:6, 720:21, 720:23, 721:16, 721:21, 722:12, 723:14, 723:16, 723:25, 724:19, 724:20, 725:6, 725:7, 725:18, 731:19, 731:23, 732:22, 733:4, 733:5, 733:8, 733:9, 733:16, 733:21, 733:25, 734:14, 736:9, 736:21, 737:16, 737:19, 738:2, 738:10, 738:15, 738:18, 738:23, 739:16,</p>	<p>742:20, 744:3, 744:16, 744:19, 744:25, 745:9, 745:12, 745:14, 745:23, 746:12, 746:19, 749:8, 750:10, 751:18, 752:16, 752:18, 752:24, 753:4, 753:7, 754:3, 754:6, 754:11, 754:13, 756:20, 759:7, 759:9, 759:20, 761:21, 762:3, 762:10, 762:11, 765:21, 768:15, 768:19, 770:3, 770:23, 779:12, 788:4, 793:8, 793:14, 794:12, 795:10, 795:19, 798:1, 799:2, 799:6</p> <p>inspector [39] - 574:11, 588:8, 588:10, 607:24, 610:14, 611:18, 614:5, 619:10, 622:25, 623:16, 645:15, 654:8, 655:13, 673:18, 680:7, 685:8, 690:5, 690:12, 691:3, 695:19, 706:20, 706:21, 706:25, 709:13, 710:11, 719:11, 719:17, 723:10, 723:13, 723:19, 725:25, 729:6, 729:10, 729:12, 729:19, 742:11, 754:19, 755:6, 760:3</p> <p>inspector's [2] - 608:4, 677:25</p> <p>inspectors [39] - 566:3, 599:16, 599:17, 615:16, 616:4, 616:5, 616:20, 676:19, 678:17, 678:19, 682:1, 682:2, 683:24, 683:25, 685:1, 689:6, 690:18, 691:2, 691:4, 691:22, 692:8, 692:9, 692:16, 692:20, 692:24, 697:11, 697:15, 698:1, 709:2, 709:9, 731:16, 732:9,</p>
---	---	--	--	--

736:1, 736:6, 738:5, 738:10, 738:16, 749:4, 749:7 installed [1] - 757:16 instance [4] - 753:13, 777:5, 784:16, 793:20 instances [1] - 753:1 instantaneous [1] - 764:19 instead [1] - 670:2 instructed [1] - 615:9 instruction [1] - 607:16 insurance [1] - 693:25 intent [2] - 699:1, 700:12 interacted [1] - 575:2 interactions [2] - 616:18, 616:19 interested [3] - 684:19, 692:5, 706:18 interim [1] - 691:6 internal [2] - 695:11, 695:23 interrupt [2] - 596:9, 712:11 inversion [1] - 596:15 investigate [1] - 799:16 investigation [1] - 674:12 involve [5] - 569:8, 593:11, 729:13, 732:5, 744:4 involved [1] - 730:21 Irvin [1] - 566:15 isolated [1] - 580:18 issue [6] - 573:16, 590:10, 591:14, 604:8, 617:23, 701:16 issues [4] - 674:13, 680:5, 682:3, 682:5 IT [1] - 680:19 itself [2] - 744:9, 773:13	595:13, 597:6, 659:10, 668:18, 668:23, 669:2, 674:6, 675:2, 706:19, 719:10, 731:16, 754:23 John [2] - 703:19, 706:24 Johnson [1] - 694:13 joint [3] - 613:18, 656:16, 657:9 joints [1] - 656:20 Jonelle [3] - 572:10, 694:12, 694:14 Jr [1] - 719:9 jump [1] - 669:15 June [2] - 731:9, 749:19	712:17, 758:1	700:9 leaking [7] - 612:10, 613:6, 637:4, 637:5, 661:18, 771:25, 773:21 leaks [54] - 593:12, 612:11, 612:13, 612:19, 613:2, 613:3, 636:3, 636:14, 637:9, 637:17, 637:25, 638:3, 656:12, 678:14, 678:15, 686:2, 686:9, 687:6, 702:16, 715:7, 715:8, 715:9, 715:13, 716:9, 716:15, 727:25, 728:3, 728:7, 734:19, 734:20, 735:5, 735:7, 744:6, 744:7, 744:16, 744:22, 744:23, 745:1, 745:5, 749:23, 760:18, 760:22, 761:16, 764:12, 768:8, 768:10, 768:12, 795:11, 795:19, 798:6, 798:9, 798:16 learn [2] - 645:12, 656:25 learned [3] - 641:6, 649:20, 657:12 leave [3] - 564:15, 707:10, 741:5 left [10] - 564:12, 565:6, 582:8, 612:17, 615:15, 633:24, 736:18, 774:13, 777:1, 783:5 length [4] - 576:20, 577:20, 577:23, 663:2 lentil [5] - 660:12, 772:8, 773:6, 773:23, 774:6 lentils [10] - 639:3, 639:7, 639:9, 639:13, 640:8, 640:14, 640:21, 660:13, 773:19, 774:17 lesser [2] - 599:5, 767:8 letter [1] - 680:3 letters [2] - 613:14, 614:9 level [5] - 608:17, 638:19, 658:19,	690:20, 713:25 leveling [1] - 638:18 Lewis [1] - 706:24 lid [22] - 593:21, 593:25, 612:16, 613:2, 654:15, 654:16, 655:5, 655:9, 655:18, 655:24, 656:2, 656:4, 656:5, 656:8, 733:8, 734:20, 738:15, 744:6, 787:15, 787:16, 788:4, 788:7 lids [29] - 593:19, 593:22, 593:23, 594:2, 612:8, 612:10, 645:5, 645:8, 653:24, 654:5, 654:6, 654:9, 677:8, 711:14, 720:25, 724:20, 738:13, 738:21, 744:7, 780:18, 781:22, 786:23, 786:25, 787:2, 787:4, 787:7, 787:12, 787:14, 788:9 light [3] - 714:12, 743:1, 743:5 lighting [1] - 714:6 lights [3] - 714:7, 714:17 limit [4] - 652:4, 753:15, 753:19, 762:12 limitation [1] - 661:15 limited [1] - 795:3 line [13] - 604:23, 606:15, 611:24, 611:25, 612:13, 647:1, 647:4, 649:9, 649:11, 779:16, 782:25, 783:1, 784:22 listed [2] - 690:13, 736:17 lit [1] - 714:13 litigation [1] - 659:5 live [2] - 562:6, 672:15 load [1] - 567:2 located [3] - 630:4, 672:19, 673:2 location [4] - 720:3, 768:22, 796:22, 798:19 locations [1] - 723:16 lockers [1] - 735:21 log [1] - 708:3
		L		
		label [2] - 590:20, 694:6 labeled [2] - 786:15, 789:22 labels [3] - 590:4, 590:24, 590:25 lack [1] - 614:9 lady [1] - 592:14 land [1] - 674:10 landscaping [2] - 706:5, 706:15 Landscaping [1] - 706:9 language [1] - 655:17 lapsed [1] - 594:15 large [1] - 786:13 larger [1] - 610:5 larry [7] - 579:13, 582:16, 586:8, 645:3, 645:7, 780:13, 781:21 last [31] - 562:1, 574:25, 575:1, 575:23, 589:5, 589:9, 592:14, 603:21, 627:21, 647:12, 647:23, 661:25, 663:11, 672:4, 673:22, 680:11, 683:1, 700:3, 703:19, 703:21, 712:8, 712:16, 720:5, 720:7, 748:23, 755:1, 757:2, 758:5, 758:9, 758:25 lastly [1] - 690:24 LaVon [1] - 694:13 Lawrenceville [2] - 747:7, 747:11 layer [3] - 567:5, 567:6, 691:25 layout [1] - 791:10 lead [1] - 581:14 leak [22] - 612:25, 613:7, 630:19, 631:25, 632:22, 634:2, 634:5, 634:8, 634:18, 656:1, 744:19, 745:3, 745:6, 761:5, 764:15, 767:15, 768:4, 774:8, 795:24, 796:5, 796:8, 799:18 leakage [2] - 700:5,		
	K			
	K-Port [5] - 677:21, 680:6, 683:13, 687:14, 690:21 K-Ports [1] - 679:12 Kentucky [1] - 676:5 Keramida [56] - 592:9, 592:20, 592:21, 602:3, 669:21, 672:9, 674:5, 674:19, 675:1, 676:2, 684:15, 685:17, 685:18, 686:3, 696:17, 697:9, 697:10, 698:9, 699:8, 700:7, 700:8, 700:16, 700:18, 701:6, 702:23, 704:1, 705:5, 705:8, 705:16, 706:13, 709:11, 710:2, 710:20, 719:11, 719:13, 719:14, 719:20, 723:12, 723:13, 723:20, 724:1, 724:17, 725:22, 725:25, 729:5, 729:10, 729:19, 732:9, 736:1, 736:12, 736:21, 738:4, 738:10, 738:16, 738:19, 741:3 Keramida's [3] - 699:1, 700:24, 701:1 Keypoint [1] - 708:2 kinds [1] - 638:22 knowledge [3] - 609:14, 692:8, 713:5 known [3] - 569:5,			
J				
jamb [1] - 795:4 January [5] - 610:14, 653:21, 757:16, 775:19, 778:24 jason [2] - 561:8, 590:3 Jerry [2] - 712:14 Jim [1] - 658:11 job [13] - 571:15,				

<p>logged [1] - 768:24 lose [1] - 681:20 loss [1] - 681:23 loud [1] - 661:21 low [1] - 590:25 LTE [2] - 681:16, 682:8 lunch [5] - 568:1, 669:14, 669:15, 669:23, 670:7 Luther [1] - 662:22</p>	<p>Manager [3] - 672:10, 672:12, 674:17 managing [2] - 677:18, 684:24 mandatory [1] - 697:24 maneuver [1] - 595:11 manner [3] - 731:19, 749:5, 749:8 manual [77] - 623:13, 623:14, 623:15, 623:18, 623:21, 623:25, 624:3, 624:6, 624:9, 624:19, 624:25, 625:3, 625:16, 626:9, 626:23, 627:6, 627:13, 627:16, 628:6, 628:24, 632:9, 633:14, 639:18, 639:20, 639:25, 640:4, 640:6, 640:12, 645:20, 650:12, 652:15, 655:16, 657:8, 659:10, 663:16, 667:23, 668:4, 668:8, 677:17, 678:11, 684:23, 699:10, 699:11, 699:13, 717:18, 717:20, 722:4, 722:9, 722:12, 726:11, 726:14, 739:4, 739:7, 739:10, 752:17, 752:25, 753:3, 753:7, 753:11, 753:15, 753:24, 753:25, 754:17, 755:11, 757:12, 761:10, 761:23, 771:11, 778:5, 781:4, 781:6, 788:1, 788:2, 791:1, 796:10, 800:22, 800:24 manually [1] - 747:12 March [3] - 614:4, 769:22, 782:17 MARK [1] - 728:21 mark [1] - 561:10 Mark [3] - 710:11, 728:20, 729:2 marked [1] - 606:15 master [2] - 687:16 material [4] - 576:4, 576:12, 578:24, 781:11</p>	<p>materials [3] - 780:23, 780:24 matter [2] - 642:10, 647:5 max [5] - 617:10, 649:6, 649:9, 650:20, 779:17 McKeesport [1] - 704:4 MD [1] - 737:6 mean.. [1] - 582:19 means [7] - 565:12, 606:10, 663:21, 666:20, 762:19, 776:11, 794:25 meant [1] - 606:16 measure [1] - 660:2 measurement [1] - 618:22 Measurements [1] - 729:11 measurements [1] - 765:19 measures [1] - 743:24 measuring [2] - 702:1, 716:4 meet [2] - 567:21, 730:25 MELISSA [1] - 723:1 Melissa [2] - 592:15, 722:25 melissa [1] - 723:8 member [7] - 565:23, 565:24, 565:25, 592:5, 592:7, 691:8, 712:18 members [8] - 565:16, 565:17, 565:20, 711:17, 712:5, 712:12, 712:13, 731:1 mention [3] - 571:11, 573:19, 676:12 mentioned [29] - 569:2, 569:8, 569:13, 571:11, 573:22, 575:7, 580:2, 590:14, 592:5, 598:1, 601:6, 639:2, 643:3, 659:8, 660:6, 660:18, 663:18, 664:9, 664:21, 665:17, 668:17, 677:14, 682:7, 684:10, 692:15, 698:9, 713:17, 726:24, 781:24 mentioning [2] - 573:23, 735:4</p>	<p>messages [1] - 685:2 messing [1] - 610:6 metal [1] - 576:5 meters [2] - 577:13 method [21] - 565:8, 621:24, 622:4, 626:1, 632:8, 677:4, 690:9, 710:24, 712:18, 717:9, 720:12, 720:16, 720:19, 726:3, 730:13, 750:15, 750:17, 750:25, 751:5, 790:11, 796:7 Method [150] - 565:8, 565:10, 565:13, 565:21, 566:3, 594:10, 594:12, 601:23, 602:7, 602:9, 602:11, 602:12, 608:7, 608:10, 608:21, 614:8, 616:23, 616:24, 621:11, 621:20, 621:22, 621:23, 622:1, 622:6, 622:9, 622:11, 622:23, 623:11, 623:18, 625:24, 626:4, 630:22, 630:24, 632:10, 632:13, 650:21, 650:24, 651:2, 673:15, 673:17, 675:12, 676:18, 677:4, 677:12, 697:12, 697:21, 697:22, 698:1, 698:4, 698:7, 704:22, 704:24, 705:1, 705:9, 705:22, 708:24, 710:15, 710:18, 710:23, 711:4, 711:16, 715:6, 716:7, 717:6, 717:11, 717:12, 717:23, 719:16, 719:23, 719:25, 720:8, 720:13, 722:14, 722:16, 723:13, 723:19, 724:1, 724:5, 724:7, 724:17, 725:24, 725:25, 726:16, 726:18, 729:6, 729:9, 729:18, 729:20, 729:22, 729:25, 730:6, 730:10, 730:13, 730:15, 730:17, 730:23, 730:24, 731:12, 731:16, 733:10, 733:13, 733:15, 738:23, 738:25, 739:2, 739:12, 739:15, 739:24, 740:14, 742:23, 743:3, 749:13, 749:15, 749:17, 749:20, 750:3, 750:6, 750:13, 750:15, 750:18, 750:22, 751:3, 751:11, 751:16, 754:4, 754:7, 754:11, 754:14, 754:17, 755:9, 756:7, 756:11, 756:15, 756:17, 756:20, 767:16, 767:18, 767:19, 767:22, 780:2, 783:9, 783:11, 790:13, 791:16, 795:22, 795:25, 798:12, 798:15 methods [14] - 620:18, 620:23, 621:8, 621:11, 622:13, 622:19, 705:25, 726:5, 733:19, 739:9, 749:1, 749:4, 750:9, 750:13 meticulous [1] - 597:7 mid [1] - 617:5 mid-morning [1] - 617:5 middle [5] - 611:24, 654:10, 694:8, 703:19, 776:5 midnight [6] - 678:1, 709:19, 732:4, 732:6, 732:7, 736:3 midnights [1] - 721:6 might [9] - 601:1, 601:9, 639:21, 646:20, 647:8, 655:22, 696:12, 741:4, 775:3 Mike [2] - 570:9, 572:9 minimum [1] - 626:25 minute [14] - 636:9, 636:12, 636:14, 637:6, 637:13, 646:25, 647:2, 647:10, 648:24, 651:16, 651:20, 664:15, 671:14,</p>	
M				
<p>machine [8] - 575:12, 605:17, 645:5, 645:8, 713:11, 713:20, 714:8, 714:11 machinery [8] - 576:16, 586:8, 662:22, 762:24, 762:25, 763:3, 763:7 mail [17] - 560:6, 560:8, 685:11, 688:20, 688:24, 688:25, 689:2, 693:4, 693:6, 693:24, 694:9, 694:16, 695:21, 696:4, 696:11, 696:12 mails [3] - 685:2, 695:1 main [4] - 593:15, 593:17, 654:4 maintain [3] - 586:18, 724:11, 731:6 maintaining [1] - 586:24 maintenance [10] - 584:13, 584:16, 584:19, 585:25, 586:2, 586:3, 586:4, 586:7, 586:13, 586:14 major [1] - 673:8 makeup [1] - 570:2 man [2] - 570:14, 581:12 manage [3] - 683:16, 695:8, 695:11 managed [2] - 670:24, 689:8 management [1] - 688:3 manager [7] - 573:22, 616:15, 674:21, 674:23, 690:7, 721:14, 721:15</p>				

<p>770:14 minutes [25] - 589:12, 589:16, 589:21, 589:24, 636:20, 636:23, 636:25, 637:2, 647:12, 647:15, 649:2, 651:4, 651:10, 664:10, 664:14, 664:22, 664:23, 670:2, 718:17, 757:7, 769:23, 770:1, 770:18, 770:22, 782:24 miscellaneous [5] - 638:10, 639:10, 772:6, 772:12, 773:24 missing [3] - 608:19, 608:20, 689:4 mistake [2] - 700:11, 700:19 mistakes [2] - 690:5, 691:21 mix [2] - 708:16, 708:17 modifications [1] - 745:25 modified [3] - 684:25, 756:7, 757:16 moment [4] - 569:24, 603:7, 670:14, 693:9 momentarily [1] - 662:21 momentary [1] - 783:17 Monday [1] - 710:5 Monessen [10] - 676:13, 676:15, 690:25, 705:10, 723:18, 726:25, 727:2, 727:5, 727:6 monitor [1] - 596:16 monitoring [1] - 597:2 month [9] - 568:23, 595:25, 600:11, 600:12, 615:14, 615:21, 687:15, 748:4 monthly [5] - 683:17, 688:4, 693:12, 700:1, 732:24 months [2] - 711:24, 723:21 morning [3] - 617:5, 672:1, 794:2 mostly [1] - 685:19 moved [4] - 576:8, 576:16, 592:20, 707:2</p>	<p>moves [1] - 579:14 moving [3] - 613:20, 630:15, 763:12 multiple [1] - 690:18 multitask [1] - 592:2 must [1] - 799:2</p> <p style="text-align: center;">N</p> <p>naked [1] - 618:8 name [24] - 561:23, 562:1, 564:12, 586:21, 592:14, 592:15, 596:1, 607:24, 647:23, 658:10, 672:4, 680:11, 703:17, 703:19, 703:20, 703:21, 712:16, 719:8, 723:7, 729:1, 737:1, 741:19, 775:14 names [3] - 564:11, 572:5, 585:11 nasty [4] - 570:15, 570:21, 570:23 nature [1] - 662:24 near [2] - 587:13, 603:24 nearly [1] - 690:16 negative [7] - 653:10, 653:12, 707:5, 708:19, 709:7, 711:4, 712:20 NESHAP [4] - 623:4, 623:8, 700:4, 751:20 network [1] - 682:13 newer [1] - 781:8 NF [2] - 614:11, 614:14 nobody [3] - 584:11, 757:20, 779:24 non-combusted [4] - 647:4, 649:5, 649:8, 650:20 non-observation [2] - 605:7, 605:15 non-observations [2] - 605:9, 605:12 non-observed [3] - 605:6, 606:3, 606:6 none [7] - 624:1, 624:4, 653:7, 665:6, 665:9, 665:13, 665:25 nonetheless [1] - 799:2 normally [2] - 687:3, 732:18 north [5] - 675:23,</p>	<p>777:6, 777:8, 777:10, 777:13 North [2] - 585:16, 705:18 notation [1] - 612:3 note [11] - 590:10, 597:4, 605:2, 605:7, 605:14, 605:24, 612:11, 617:10, 647:2, 671:11, 688:20 noted [9] - 605:15, 607:25, 636:2, 636:3, 681:9, 767:10, 769:3, 796:5 notes [2] - 682:2, 682:6 nothing [9] - 590:17, 618:24, 639:8, 652:8, 669:8, 680:24, 703:2, 740:24, 774:15 noticed [6] - 573:13, 587:24, 587:25, 589:2, 589:8, 702:7 notified [2] - 687:22, 688:5 noting [4] - 613:1, 615:6, 632:5 November [3] - 675:8, 724:9, 724:15 nowadays [1] - 761:8 nowhere [1] - 763:2 number [22] - 575:25, 587:16, 596:1, 603:3, 603:4, 603:19, 614:9, 616:10, 620:12, 628:17, 628:18, 634:19, 634:22, 638:1, 638:2, 648:9, 651:22, 663:5, 686:9, 734:19, 735:5, 744:22 numbered [4] - 603:15, 603:16, 621:15, 631:8 numbers [3] - 610:5, 648:13, 788:21 numerator [1] - 663:11</p> <p style="text-align: center;">O</p> <p>o'clock [4] - 568:5, 568:13, 707:16, 707:21 O-R-S-K-Y [1] - 729:3 oath [2] - 717:15, 721:25 object [1] - 675:1</p>	<p>objection [7] - 617:16, 617:18, 671:9, 693:23, 694:2, 696:22, 696:25 Observation [1] - 662:11 observation [40] - 593:20, 601:22, 605:7, 605:15, 608:7, 608:9, 608:14, 609:6, 609:11, 609:13, 612:16, 614:4, 614:13, 626:24, 643:10, 646:8, 648:9, 648:20, 651:24, 652:11, 652:23, 681:8, 749:11, 777:21, 780:5, 781:7, 782:11, 782:14, 782:19, 783:15, 783:22, 783:25, 784:5, 785:2, 785:6, 789:9, 790:6, 790:8, 790:12, 792:22 observations [57] - 563:25, 564:6, 576:22, 593:8, 593:9, 593:10, 596:8, 601:18, 601:20, 602:9, 602:12, 602:15, 605:1, 605:9, 605:12, 608:17, 609:17, 610:21, 611:9, 612:7, 614:7, 622:24, 651:12, 651:15, 652:20, 660:19, 662:25, 665:23, 675:12, 677:10, 677:15, 685:25, 688:1, 688:10, 696:17, 720:8, 720:10, 732:17, 736:24, 738:5, 739:1, 744:10, 749:5, 750:7, 750:23, 752:2, 752:5, 753:24, 778:23, 779:4, 783:12, 784:8, 792:14, 792:15, 792:17, 792:19, 792:20 observe [14] - 605:18, 605:24, 615:4, 616:11, 628:2, 642:17, 645:1, 658:1, 663:7, 781:7,</p>	<p>786:24, 787:4, 787:7, 790:9 observed [20] - 605:6, 605:20, 606:2, 606:3, 606:6, 606:13, 606:17, 608:11, 627:23, 634:5, 634:7, 642:15, 662:14, 663:23, 687:7, 711:19, 757:4, 757:8, 782:23, 787:1 observer [13] - 627:7, 662:19, 663:1, 724:5, 724:8, 724:17, 729:23, 730:17, 737:1, 737:4, 749:13, 749:18, 750:18 observer's [2] - 662:20, 791:11 observing [16] - 606:20, 615:7, 622:1, 643:3, 646:11, 654:9, 710:15, 710:16, 713:15, 731:17, 751:1, 751:5, 751:9, 767:2, 780:21, 796:1 obstructed [6] - 662:1, 662:21, 662:24, 663:1, 663:8, 663:11 obstruction [2] - 662:24, 743:12 occasion [8] - 584:13, 596:21, 624:15, 628:20, 630:17, 681:12, 683:6, 797:8 occasionally [2] - 618:11, 679:6 occasions [4] - 609:24, 733:24, 793:24, 798:14 occupation [1] - 672:7 occur [1] - 582:5 occurred [9] - 582:21, 648:5, 679:6, 686:18, 686:22, 687:12, 687:19, 783:6, 800:9 occurring [2] - 643:13, 790:6 October [6] - 644:20, 675:10, 717:14, 721:24, 726:8, 736:22 OF [1] - 561:1 off-the-record [1] - 671:17</p>
---	---	---	---	---

<p>Offered [1] - 560:2 offering [1] - 673:15 offhand [1] - 727:23 official [1] - 683:13 offtake [10] - 593:12, 593:13, 593:14, 655:8, 656:21, 657:1, 657:10, 734:19, 738:9, 788:3 offtakes [21] - 593:16, 593:18, 595:14, 619:15, 653:24, 654:10, 655:5, 655:18, 656:10, 656:13, 656:18, 677:8, 711:12, 711:13, 712:10, 721:1, 724:21, 738:7, 738:21, 787:7, 787:12 old [1] - 563:6 on-battery [1] - 730:25 on-the-job [1] - 754:23 one-hour [3] - 790:7, 790:14, 791:2 onset [1] - 692:12 onsite [2] - 563:7, 563:10 opacity [112] - 618:11, 618:13, 618:15, 618:16, 618:17, 618:20, 619:20, 619:25, 622:1, 626:10, 630:19, 631:23, 631:25, 632:3, 632:6, 632:10, 632:13, 632:16, 632:19, 632:23, 632:24, 633:4, 633:8, 634:6, 634:8, 634:10, 634:16, 634:18, 636:6, 636:12, 636:17, 637:4, 637:8, 637:11, 637:19, 637:24, 638:5, 641:20, 641:23, 642:1, 642:9, 649:6, 649:8, 649:11, 650:2, 650:5, 650:13, 650:21, 651:25, 652:3, 659:18, 659:21, 659:22, 660:2, 666:7, 666:21, 711:21, 715:3, 715:4, 716:5, 738:25, 742:23,</p>	<p>742:25, 743:2, 743:10, 743:23, 744:4, 744:12, 744:15, 744:17, 744:20, 744:23, 745:1, 745:3, 745:6, 749:21, 750:1, 750:4, 751:3, 751:12, 760:22, 764:12, 764:15, 764:17, 764:22, 767:10, 767:13, 767:15, 767:17, 767:18, 768:8, 768:9, 768:13, 768:23, 769:19, 779:14, 779:17, 779:19, 779:21, 780:1, 783:8, 783:19, 783:21, 794:1, 798:7, 798:9, 798:10, 798:15, 799:14, 799:18 opaque [1] - 662:23 open [9] - 575:12, 581:18, 581:20, 582:10, 583:13, 583:15, 788:18, 797:6, 797:9 opened [5] - 582:24, 657:16, 715:21, 715:22, 715:25 opening [4] - 576:15, 576:17, 648:19, 782:22 openings [1] - 578:10 operate [1] - 574:4 operates [1] - 582:4 operating [1] - 661:24 operation [4] - 584:14, 584:16, 674:21, 692:11 operations [3] - 567:19, 674:14, 733:7 opinion [1] - 716:6 opportunity [2] - 670:20, 799:20 opposed [2] - 740:18, 752:21 or.. [5] - 572:5, 677:1, 681:14, 709:10, 793:17 orientation [1] - 731:15 OSHA [1] - 723:23 otherwise [1] - 569:5 ourselves [1] - 777:8 out-of-service [2] - 605:20, 708:13</p>	<p>outage [1] - 567:11 output [1] - 692:4 outside [5] - 571:3, 571:6, 571:9, 596:2, 769:1 Oven [3] - 767:5, 767:6, 783:18 oven [71] - 564:23, 565:1, 565:19, 570:24, 570:25, 583:6, 583:7, 583:8, 583:9, 583:10, 586:12, 586:15, 593:22, 593:24, 594:3, 594:6, 594:8, 594:24, 608:2, 612:24, 634:3, 634:19, 634:21, 634:24, 635:8, 635:14, 635:19, 635:21, 638:19, 638:20, 639:1, 639:4, 648:9, 648:13, 651:17, 651:19, 662:1, 663:4, 663:11, 667:15, 730:8, 741:25, 742:4, 742:7, 747:21, 752:13, 756:6, 759:20, 765:23, 767:2, 767:3, 768:3, 771:17, 771:19, 772:3, 774:14, 776:16, 780:14, 780:15, 780:17, 780:19, 781:23, 782:2, 782:3, 782:6, 783:25, 784:3, 784:6, 795:1, 797:16 ovens [22] - 583:10, 605:20, 613:1, 613:2, 613:16, 635:16, 635:22, 635:23, 638:23, 647:13, 661:24, 663:25, 708:13, 711:10, 727:8, 727:14, 727:22, 788:10, 788:17, 788:22, 795:17, 795:20 Ovens [1] - 765:5 overall [1] - 760:17 overlap [1] - 591:3 overnight [2] - 568:8, 709:21 oversaw [1] - 592:10 oversee [1] - 601:7</p>	<p style="text-align: center;">P</p> <p>p.m [5] - 670:11, 718:21, 718:22, 741:8, 741:9 packet [1] - 603:1 pages [3] - 590:16, 590:17, 603:15 panel [16] - 565:16, 565:17, 565:20, 565:23, 565:24, 565:25, 592:5, 592:7, 691:8, 711:17, 712:5, 712:12, 712:13, 712:17, 731:1 paper [5] - 649:15, 670:25, 734:14, 745:15, 746:14 papers [1] - 786:14 paperwork [5] - 606:4, 651:3, 679:3, 679:4, 735:19 paragraph [4] - 662:7, 662:10, 699:24, 757:2 parameters [1] - 563:12 PARKER [2] - 603:19, 603:24 part [27] - 576:21, 578:18, 578:23, 579:7, 580:8, 583:7, 592:22, 594:7, 595:7, 601:16, 638:15, 639:17, 640:8, 649:18, 650:9, 651:5, 660:11, 660:16, 686:14, 686:15, 690:14, 702:4, 771:2, 771:7, 773:24, 776:9, 782:8 participate [1] - 592:24 participated [1] - 597:2 particulates [1] - 715:5 parties [4] - 692:5, 696:14, 696:15, 741:4 parts [6] - 586:6, 586:7, 595:13, 638:25, 720:18, 729:14 party [4] - 592:9, 592:19, 691:1, 691:22 pass [5] - 597:20,</p>	<p>598:5, 601:4, 622:17, 748:24 passed [1] - 599:1 past [10] - 587:11, 616:16, 665:2, 686:19, 758:10, 758:11, 794:12, 794:14, 800:13, 800:15 pattern [1] - 712:1 pay [2] - 588:24, 680:1 payday [1] - 600:9 paying [1] - 740:8 PDF [1] - 696:9 PEC [1] - 790:5 penalty [1] - 693:20 Pennsylvania [4] - 562:8, 676:13, 704:5, 705:11 people [2] - 589:3, 663:23 per [9] - 571:19, 615:14, 633:14, 691:3, 709:12, 709:13, 727:8, 740:9 percent [20] - 645:24, 645:25, 646:2, 661:24, 669:1, 716:5, 743:8, 743:9, 743:10, 743:11, 743:12, 743:14, 743:16, 743:18, 747:17, 761:7, 771:8, 781:16, 787:10 percentage [7] - 618:14, 637:3, 637:5, 661:18, 711:21, 743:7, 760:18 percentages [1] - 688:16 Peresie [3] - 646:21, 647:18, 658:11 performed [1] - 607:13 performing [1] - 593:7 period [16] - 586:16, 586:19, 590:8, 590:18, 616:6, 662:15, 665:17, 675:5, 678:24, 689:5, 732:6, 732:14, 754:25, 758:8, 790:7, 800:5 periodically [3] - 624:11, 624:14, 624:16 peripheral [4] - 766:15, 766:20,</p>
---	--	--	---	--

<p>766:25, 767:7 permit [1] - 708:12 person [14] - 571:17, 571:19, 571:20, 571:24, 599:5, 678:19, 680:19, 706:21, 706:25, 792:24, 792:25, 794:8, 794:9, 794:10 personal [6] - 567:1, 569:2, 569:7, 606:18, 707:12, 708:21 personnel [14] - 571:22, 571:23, 572:1, 572:8, 581:13, 584:5, 584:7, 584:9, 607:25, 608:1, 609:8, 610:15, 611:18, 614:6 personnels [1] - 572:4 persons [1] - 657:21 perspective [4] - 677:19, 680:2, 690:24, 691:19 pertinent [1] - 567:11 phonetic [4] - 566:15, 592:13, 600:4, 607:3 physically [1] - 720:3 pick [8] - 617:8, 698:3, 720:18, 725:6, 725:9, 733:18, 798:19 picked [1] - 711:7 picker [1] - 678:6 picture [2] - 666:16, 666:19 piece [2] - 638:20, 763:7 piloting [2] - 649:23, 663:18 pipe [1] - 782:2 Piper [1] - 566:15 piping [5] - 613:19, 656:15, 656:19, 656:22, 657:9 Pittsburgh [1] - 717:14 places [1] - 657:1 plan [1] - 689:19 planning [1] - 741:5 plant [26] - 567:8, 596:8, 596:20, 607:22, 607:25, 609:7, 609:8, 610:15, 611:17, 611:18, 614:4, 614:5, 625:20, 630:5, 681:17,</p>	<p>681:21, 706:16, 720:4, 720:8, 721:3, 731:24, 735:14, 736:12, 742:8, 742:13, 742:15 plants [1] - 675:24 plastic [1] - 576:4 platform [1] - 772:4 plug [1] - 680:24 plugged [1] - 682:15 plume [19] - 618:18, 642:14, 643:1, 653:1, 653:9, 659:19, 659:23, 660:1, 711:20, 743:1, 743:4, 743:5, 743:15, 743:17, 743:19, 769:18, 785:5, 785:19 plumes [2] - 662:23, 711:19 PM [2] - 596:13, 679:22 PM10 [3] - 596:4, 596:14, 643:8 PM2.5 [1] - 596:13 pointing [1] - 666:16 populated [1] - 678:13 populates [3] - 678:5, 680:11, 683:3 port [2] - 744:7, 780:12 Port [5] - 677:21, 680:6, 683:13, 687:14, 690:21 portal [8] - 677:6, 677:20, 678:10, 680:10, 680:23, 681:2, 687:14, 696:3 portion [3] - 591:15, 662:18, 737:3 Ports [1] - 679:12 ports [10] - 593:22, 593:24, 593:25, 619:15, 645:3, 645:7, 776:15, 776:18, 776:23, 781:21 position [26] - 563:9, 564:19, 564:21, 564:24, 566:24, 587:17, 608:5, 642:7, 642:12, 666:7, 666:12, 678:1, 719:12, 719:15, 729:7, 754:21, 776:21, 777:8, 777:15, 777:18, 777:21, 784:10, 785:23,</p>	<p>789:9, 791:11 positioned [1] - 769:7 possible [1] - 574:12 possibly [2] - 574:17, 800:10 posted [1] - 732:24 potential [2] - 561:14, 686:2 PPE [3] - 569:5, 569:7, 708:2 practicum [2] - 563:2, 563:8 preference [1] - 708:21 preliminary [1] - 685:5 prepackaged [1] - 747:19 prepared [2] - 746:3, 746:4 preprinted [1] - 746:5 prerequisites [1] - 690:13 present [3] - 686:25, 688:15, 718:12 presentation [1] - 688:3 presented [4] - 604:7, 665:23, 691:12, 793:8 presenting [1] - 686:24 presents [1] - 685:14 President [1] - 672:9 president [1] - 674:10 pretty [9] - 571:14, 620:8, 664:13, 672:4, 703:17, 734:9, 744:7, 745:25, 748:8 previous [8] - 645:14, 646:18, 655:13, 692:8, 692:10, 692:16 previously [2] - 561:20, 670:17 primarily [2] - 725:2, 732:4 principal [2] - 674:17, 674:18 print [2] - 683:12, 684:14 private [5] - 697:9, 697:10, 698:16, 699:2, 701:6 proactive [3] - 573:18, 574:7, 574:8 procedure [22] - 627:3, 639:17, 650:9, 663:2, 663:23, 663:24,</p>	<p>664:1, 664:2, 664:12, 690:9, 730:13, 747:20, 759:6, 771:2, 771:3, 771:4, 771:5, 771:7, 771:9, 787:20, 787:24, 797:17 procedures [6] - 623:19, 624:17, 624:20, 657:19, 657:20, 697:22 proceed [2] - 591:12, 792:10 PROCEEDINGS [1] - 561:1 process [23] - 579:17, 591:20, 594:7, 594:24, 598:1, 606:9, 664:9, 679:9, 679:13, 679:14, 679:15, 679:18, 680:7, 690:1, 695:9, 695:16, 702:4, 741:25, 742:4, 742:7, 747:21, 759:20, 780:4 processing [2] - 564:23, 565:1 produced [2] - 590:6, 590:22 product [1] - 582:9 Program's [1] - 614:3 project [5] - 674:7, 674:21, 674:23, 690:6, 723:23 properly [2] - 621:6, 702:14 proposition [1] - 587:18 protection [1] - 706:16 Protection [3] - 625:24, 756:6, 756:12 protective [6] - 567:2, 567:5, 567:6, 569:3, 569:7, 707:12 protocol [2] - 606:19, 616:9 protocols [1] - 586:2 provided [8] - 560:9, 683:10, 699:12, 700:7, 735:17, 735:20, 735:21, 745:17 provides [2] - 689:19, 692:13 providing [1] - 701:3 provisions [1] - 800:23</p>	<p>PS [2] - 611:1, 648:16 puffy [1] - 580:13 pulled [1] - 778:16 purchased [1] - 587:10 purely [1] - 673:23 purpose [12] - 594:2, 648:22, 689:17, 689:21, 731:18, 758:20, 770:25, 788:15, 789:3, 789:12, 790:8, 791:9 purposes [2] - 647:16, 701:22 pursuant [2] - 738:23, 743:2 pursuing [1] - 675:18 push [21] - 573:20, 573:22, 578:11, 582:5, 605:21, 611:23, 612:19, 630:8, 630:15, 633:18, 633:21, 647:13, 648:17, 654:11, 654:19, 655:1, 655:4, 740:18, 763:13, 769:21, 777:11 Push [1] - 612:21 push-side [1] - 655:4 pushed [9] - 579:17, 579:21, 580:14, 582:6, 582:25, 608:3, 664:16, 784:3, 784:6 pusher [13] - 593:18, 611:2, 612:2, 612:23, 638:19, 654:5, 654:6, 654:14, 654:24, 711:12, 759:13, 783:6, 784:19 pushes [3] - 581:23, 582:1, 582:20 pushing [15] - 567:17, 580:19, 593:9, 595:14, 607:20, 619:16, 620:3, 643:20, 643:23, 662:22, 666:23, 710:15, 711:9, 711:10, 762:7 puts [1] - 678:7</p>
Q				
<p>QAAP [2] - 689:3, 692:2 QAQC [3] - 679:9, 682:22, 690:3 QC [1] - 680:13</p>				

<p>qualify [1] - 716:5 quality [11] - 680:13, 689:3, 689:14, 689:19, 689:20, 689:23, 691:11, 692:4, 692:14, 693:25, 702:5 Quality [6] - 607:21, 609:7, 610:13, 611:16, 614:3, 756:8 quarter [8] - 568:25, 590:12, 671:3, 671:4, 671:5 quarters [1] - 797:15 quench [4] - 579:21, 579:25, 580:1, 710:17 quenched [2] - 579:15, 608:4 quenching [1] - 586:8 questioned [2] - 688:6, 792:23 questions [14] - 567:24, 592:4, 607:2, 607:10, 617:3, 618:1, 666:1, 667:17, 668:10, 668:12, 717:15, 722:19, 728:12, 739:20 quick [2] - 589:25, 694:18 quicker [2] - 684:20, 684:21 quickly [3] - 574:12, 574:16, 580:14 quite [8] - 570:5, 572:4, 587:15, 603:25, 656:14, 664:12, 752:22, 765:18</p>	<p>read [29] - 621:20, 622:9, 625:15, 627:23, 634:15, 650:2, 660:24, 661:6, 661:21, 662:13, 662:18, 667:8, 669:11, 687:2, 694:18, 694:22, 716:25, 756:14, 757:21, 758:2, 758:5, 758:10, 758:13, 779:14, 781:15, 783:19, 783:21, 794:17, 794:18 reading [52] - 618:15, 618:16, 630:20, 632:6, 632:10, 632:24, 633:4, 634:18, 636:17, 642:1, 642:8, 642:9, 648:25, 649:3, 651:19, 655:19, 659:21, 666:8, 701:25, 743:2, 743:6, 743:10, 743:11, 743:12, 744:12, 744:15, 745:6, 749:21, 749:23, 751:16, 756:1, 756:15, 764:15, 764:17, 764:22, 764:23, 765:1, 765:2, 767:5, 767:15, 769:7, 769:19, 779:19, 779:21, 780:1, 783:1, 785:16, 785:19, 790:14, 799:18, 799:19 readings [32] - 564:4, 614:9, 632:13, 632:20, 633:8, 636:6, 637:8, 650:21, 651:1, 651:16, 651:20, 651:21, 651:22, 659:18, 666:18, 666:21, 715:3, 727:25, 743:21, 744:4, 744:17, 750:4, 765:5, 767:11, 767:13, 767:17, 767:18, 767:23, 782:25, 783:3, 783:8, 794:1 real-time [2] - 695:17, 696:16 reasoning [2] - 615:2, 615:17</p>	<p>recalled [1] - 670:16 receiving [1] - 729:25 recent [1] - 689:4 recently [7] - 586:3, 586:21, 587:25, 588:2, 589:2, 758:16, 800:11 recertification [1] - 731:9 recertified [3] - 594:17, 594:19, 622:19 recessed [5] - 591:10, 617:6, 670:10, 718:21, 741:8 recession [1] - 588:6 recognize [1] - 688:19 recognizing [1] - 641:4 recollection [4] - 647:14, 660:18, 660:23, 661:11 reconvened [5] - 591:11, 617:7, 670:11, 718:22, 741:8 record [76] - 561:2, 561:6, 561:24, 573:21, 573:25, 596:20, 629:5, 629:20, 633:5, 639:14, 641:4, 641:25, 642:5, 642:7, 642:11, 642:14, 642:17, 642:20, 642:22, 642:25, 644:22, 645:9, 648:9, 650:3, 650:6, 652:22, 652:25, 653:3, 653:5, 653:8, 662:23, 663:3, 666:6, 671:11, 671:13, 671:16, 671:17, 671:19, 672:5, 681:4, 703:18, 718:20, 718:24, 719:8, 721:22, 723:7, 725:18, 729:1, 733:22, 733:23, 734:18, 737:15, 741:11, 741:20, 743:6, 760:2, 763:3, 763:7, 764:14, 764:23, 765:1, 768:22, 768:25, 769:6, 769:9, 769:12, 769:14, 769:18, 771:10,</p>	<p>773:17, 776:22, 784:13, 785:18, 785:20, 785:22, 786:7 recorded [10] - 633:17, 634:2, 649:11, 651:21, 651:22, 666:13, 677:15, 770:14, 785:2, 785:3 recording [14] - 618:22, 678:8, 690:3, 714:20, 735:5, 770:25, 785:4, 785:8, 785:10, 785:12, 785:13, 788:6, 789:3, 789:12 recross [1] - 666:2 RECROSS [2] - 666:4, 668:15 RECROSS-EXAMINATION [2] - 666:4, 668:15 rectangle [5] - 610:24, 776:6, 776:9, 776:11, 777:1 rectangular [3] - 610:19, 611:20, 784:17 redirect [4] - 658:24, 701:12, 728:13, 740:23 REDIRECT [4] - 659:2, 667:20, 670:18, 701:14 refer [5] - 639:24, 648:16, 689:1, 695:12, 753:12 reference [1] - 625:23 referred [1] - 638:14 referring [6] - 587:3, 634:11, 638:12, 685:9, 768:18, 775:15 refers [2] - 688:22, 757:15 refractory [1] - 795:4 refresh [1] - 660:22 reg [1] - 649:22 regarding [1] - 793:13 regular [6] - 592:23, 624:10, 624:12, 624:13, 724:10, 747:4 regularly [1] - 715:9 regulated [3] - 569:15, 570:11, 570:13 regulation [8] - 569:17, 640:11,</p>	<p>667:23, 668:1, 668:5, 668:6, 790:25, 796:11 regulations [4] - 640:18, 752:6, 752:8, 752:9 reissue [1] - 687:22 relate [2] - 752:8, 759:4 related [3] - 626:9, 626:18, 790:5 relates [2] - 626:14, 756:25 relation [1] - 758:19 relationship [1] - 784:25 related [2] - 647:1, 649:25 reliable [1] - 749:8 reliably [1] - 621:2 remediation [1] - 674:12 remembering [3] - 639:23, 641:8, 656:17 removed [1] - 788:9 renewed [1] - 724:14 repair [1] - 587:6 repairs [1] - 587:10 repeat [5] - 609:15, 610:23, 672:11, 702:13, 734:23 rephrase [1] - 615:10 replaced [1] - 588:18 report [14] - 596:19, 597:10, 605:16, 609:14, 680:12, 680:16, 681:9, 681:10, 687:17, 688:15, 693:13, 693:14, 693:17, 700:7 report.. [1] - 700:1 REPORTER [1] - 589:14 reporter [8] - 560:9, 561:15, 671:23, 703:11, 719:4, 723:2, 728:22, 741:16 reporting [1] - 677:5 reports [13] - 597:10, 597:12, 597:15, 598:12, 606:20, 617:15, 669:19, 681:24, 683:19, 687:22, 688:4, 693:12, 698:20 represent [13] - 737:8, 767:14, 771:21,</p>
<p style="text-align: center;">R</p> <p>rail [3] - 579:17, 579:19 rails [1] - 586:9 raise [1] - 561:12 ran [1] - 723:23 random [1] - 652:18 randomly [1] - 758:23 rating [1] - 618:13 raw [3] - 570:24, 570:25, 729:14 re [1] - 663:7 re-observe [1] - 663:7 reach [2] - 569:15, 607:10 reached [1] - 689:6 react [1] - 574:11</p>				

<p>772:6, 772:12, 772:13, 773:18, 774:4, 774:6, 774:25, 776:14, 776:20, 777:2 representation [1] - 671:2 representative [2] - 666:17, 790:15 representatives [2] - 683:11 representing [4] - 614:13, 614:14, 663:10, 784:23 represents [2] - 610:20, 774:3 request [3] - 590:24, 615:18, 790:23 require [2] - 708:24, 753:13 required [6] - 620:7, 690:12, 691:25, 711:1, 714:23, 751:15 requirement [17] - 626:24, 627:6, 629:23, 763:6, 763:9, 778:1, 778:4, 778:6, 778:7, 778:14, 779:20, 785:25, 786:4, 786:11, 789:18, 790:16, 791:16 requirements [14] - 623:2, 623:4, 623:8, 623:11, 626:9, 627:19, 629:2, 660:19, 661:12, 751:20, 751:22, 751:25, 762:11, 798:20 requires [5] - 569:16, 569:17, 570:25, 771:9, 791:1 rescue [2] - 704:20, 706:17 research [1] - 563:7 resident [1] - 562:3 resistant [2] - 576:7, 576:12 resolved [1] - 574:16 respect [42] - 573:3, 573:16, 584:15, 585:24, 586:12, 586:15, 593:2, 597:5, 607:1, 607:6, 608:21, 609:17, 612:7, 656:10, 659:11, 659:18, 661:12, 662:2,</p>	<p>664:25, 665:4, 665:12, 665:14, 665:19, 665:22, 674:1, 674:9, 674:15, 674:25, 675:2, 681:23, 686:5, 686:9, 686:18, 686:19, 689:23, 702:8, 712:24, 740:15, 791:19, 794:12, 798:18, 800:20 respirator [16] - 567:7, 569:8, 569:16, 569:18, 569:21, 569:24, 570:3, 570:7, 570:10, 570:11, 570:13, 570:16, 570:17, 570:20, 571:1, 571:4 respond [1] - 573:20 response [2] - 668:17, 711:2 responsibility [1] - 698:25 responsible [1] - 691:18 restroom [1] - 735:20 results [6] - 685:20, 689:24, 693:17, 736:20, 737:15, 738:1 retained [2] - 688:10, 688:12 retired [4] - 599:12, 599:13, 599:20, 599:22 reverted [1] - 607:3 review [24] - 567:9, 592:2, 592:24, 603:7, 624:9, 669:16, 669:18, 669:25, 670:21, 679:11, 679:18, 679:21, 679:23, 682:21, 685:1, 685:4, 685:8, 690:5, 695:20, 696:1, 696:3, 735:20, 758:7, 758:22 reviewed [6] - 598:17, 609:21, 623:21, 685:6, 794:11, 794:13 reviewing [1] - 683:18 reviews [2] - 679:22, 690:7 revised [2] - 601:4, 794:6 Richard [1] - 719:9</p>	<p>ride [1] - 587:11 right-hand [2] - 604:23, 638:8 risk [1] - 570:25 river [1] - 777:11 roll [4] - 579:10, 579:12, 579:14 roof [2] - 578:5, 578:6 rope [1] - 704:19 roughly [6] - 643:7, 664:14, 664:16, 691:2, 691:4, 727:23 Rousche [2] - 600:4, 600:5 routes [1] - 581:9 row [9] - 613:15, 650:21, 736:14, 736:15, 736:20, 737:18, 737:21, 738:9, 738:13 rows [5] - 648:23, 787:2, 787:13, 787:14 rubber [1] - 597:19 rubber-banded [1] - 597:19 rule [1] - 640:10 run [2] - 590:4, 714:8 running [1] - 790:20</p>	<p>725:16, 731:25, 732:24, 733:3, 799:22, 799:23 scheduled [1] - 721:9 Scheetz [3] - 572:11, 694:12, 694:14 school [10] - 562:8, 562:10, 562:13, 672:21, 672:22, 672:25, 704:3, 704:8, 704:10, 704:12 School [4] - 562:11, 673:1, 711:18, 712:2 science [1] - 673:9 scientific [1] - 743:23 scratch [1] - 630:7 se [1] - 740:9 Seasons [1] - 706:9 seconds [5] - 627:22, 651:16, 753:16, 757:4, 783:2 section [12] - 640:25, 654:10, 662:8, 663:8, 663:14, 737:11, 752:13, 755:23, 758:2, 758:12, 758:14, 758:21 Section [12] - 626:13, 627:18, 660:23, 660:24, 662:5, 756:22, 756:25, 759:4, 760:12, 761:5, 797:25, 798:3 sections [2] - 698:3, 752:11 segregated [1] - 590:8 send [7] - 679:21, 680:5, 680:6, 685:1, 690:6, 695:1, 696:8 sends [3] - 685:8, 695:20, 696:3 senior [7] - 599:2, 599:5, 599:11, 641:10, 655:13, 760:3 sense [3] - 635:19, 677:22, 770:7 senses [1] - 677:21 sent [7] - 679:1, 681:5, 681:10, 684:10, 685:4, 694:11, 699:18 sentence [5] - 627:21, 662:13, 700:3, 700:13, 757:2 separate [3] - 617:22, 754:1, 799:15 sequence [1] - 663:1</p>	<p>sequenced [1] - 662:14 sequential [1] - 603:17 sequentially [1] - 766:4 series [3] - 583:8, 583:9, 593:15 service [9] - 605:20, 605:22, 606:2, 606:7, 681:16, 681:17, 682:10, 682:11, 708:13 serviced [1] - 682:8 services [2] - 673:14, 674:11 sessions [1] - 673:14 set [4] - 690:7, 758:7, 799:2, 799:22 seven-minute [1] - 770:14 shadow [1] - 642:10 shall [9] - 626:25, 627:21, 662:14, 662:23, 663:1, 663:3, 663:7, 663:9, 757:3 shed [64] - 574:19, 575:8, 575:9, 575:13, 576:14, 576:15, 576:25, 577:3, 577:4, 577:5, 577:7, 577:18, 577:19, 578:3, 578:5, 578:8, 578:16, 578:18, 579:3, 579:5, 579:7, 579:8, 580:3, 580:4, 580:8, 580:9, 580:11, 580:24, 581:2, 581:8, 581:10, 581:11, 602:18, 602:19, 602:21, 602:24, 604:25, 605:10, 606:15, 606:20, 627:14, 627:15, 714:2, 796:14, 796:18, 796:23, 796:24, 796:25, 797:2, 797:4, 797:7 sheet [25] - 604:11, 607:20, 629:13, 633:15, 633:16, 633:20, 639:14, 641:18, 641:19, 641:22, 652:19, 670:24, 687:18, 698:21, 698:24, 725:22, 735:4,</p>
S				
		<p>safe [5] - 571:13, 708:13, 731:19, 734:8, 799:1 safeguards [2] - 679:25, 690:4 safely [1] - 571:15 safety [4] - 570:6, 570:10, 595:10, 731:14 sample [1] - 790:15 sampling [4] - 564:1, 564:2, 705:22, 710:19 satisfy [1] - 606:25 save [10] - 680:21, 680:22, 681:1, 681:11, 681:13, 681:18, 681:20, 681:21, 682:5, 682:23 saved [1] - 680:22 scale [2] - 727:4, 743:7 scan [1] - 589:25 scenarios [2] - 753:23, 753:24 schedule [9] - 708:8, 711:9, 725:14,</p>		

<p>768:24, 769:1, 769:3, 779:16, 793:2, 797:24, 798:2, 798:5</p> <p>sheets [7] - 590:5, 590:11, 619:3, 619:6, 629:21, 631:20, 687:20</p> <p>Shenango [1] - 566:21</p> <p>shift [24] - 616:2, 680:18, 681:14, 707:10, 707:20, 707:21, 709:12, 709:13, 709:19, 709:21, 712:21, 721:5, 721:8, 732:2, 732:5, 732:6, 732:12, 732:16, 732:20, 734:13, 735:9, 736:3, 793:9, 793:11</p> <p>shifts [8] - 709:8, 709:15, 709:16, 709:17, 732:4, 732:8, 732:13, 732:15</p> <p>shop [5] - 587:3, 587:4, 587:9, 587:11, 587:12</p> <p>short [2] - 568:3, 574:23</p> <p>shoulder [1] - 661:9</p> <p>show [12] - 612:15, 621:22, 642:1, 654:25, 660:22, 678:1, 678:3, 688:18, 725:5, 753:10, 753:23, 768:16</p> <p>shower [1] - 735:17</p> <p>showing [2] - 612:1, 651:4</p> <p>shut [1] - 588:16</p> <p>sic [2] - 763:22, 794:18</p> <p>side [118] - 577:5, 578:9, 578:11, 578:12, 578:18, 579:4, 579:8, 579:10, 580:3, 581:3, 581:7, 581:10, 583:9, 593:17, 593:18, 601:18, 602:10, 602:13, 602:15, 604:22, 604:23, 604:24, 605:21, 606:3, 606:6, 606:8, 606:12, 610:25, 611:2, 611:23,</p>	<p>612:2, 612:19, 612:21, 612:23, 613:10, 613:12, 621:16, 629:8, 630:8, 630:12, 630:14, 630:15, 633:18, 633:21, 633:22, 633:24, 636:19, 637:6, 638:19, 648:17, 654:5, 654:6, 654:11, 654:14, 654:15, 654:19, 654:24, 655:1, 655:2, 655:4, 655:9, 655:17, 660:2, 662:19, 663:4, 686:5, 686:6, 686:10, 702:9, 711:12, 711:13, 713:2, 713:6, 713:9, 713:13, 713:16, 714:21, 715:1, 715:14, 715:21, 715:25, 716:9, 716:12, 717:1, 733:25, 740:15, 740:17, 740:18, 759:12, 759:13, 759:14, 759:17, 759:19, 763:12, 763:13, 765:4, 766:10, 766:13, 769:21, 769:25, 777:1, 777:11, 783:7, 784:19, 784:20, 796:14, 797:1</p> <p>side/coke [2] - 611:23, 612:19</p> <p>sided [2] - 604:8, 617:23</p> <p>sides [5] - 590:13, 627:8, 663:3, 759:9, 796:23</p> <p>sideways [1] - 776:25</p> <p>sign [4] - 567:14, 567:15, 567:20, 708:12</p> <p>similar [2] - 658:2, 712:1</p> <p>simple [3] - 601:1, 601:10, 601:13</p> <p>simply [3] - 606:2, 606:12, 659:13</p> <p>simultaneous [1] - 695:25</p> <p>simultaneously [1] - 632:22</p> <p>single [5] - 589:22,</p>	<p>593:17, 766:12, 767:1, 787:16</p> <p>SIP [7] - 686:24, 698:21, 700:4, 700:9, 702:11, 702:19, 751:25</p> <p>SIP/NESHAP [1] - 737:15</p> <p>site-specific [1] - 563:25</p> <p>situation [1] - 634:13</p> <p>situations [2] - 628:1, 630:7</p> <p>sixty [1] - 727:10</p> <p>sixty-seven [1] - 727:10</p> <p>size [1] - 577:8</p> <p>skills [1] - 755:4</p> <p>skim [1] - 591:23</p> <p>skin [1] - 570:3</p> <p>sky [4] - 642:22, 653:5, 769:14, 785:10</p> <p>slash [1] - 606:4</p> <p>slater [2] - 591:1, 741:3</p> <p>SLATER [67] - 561:2, 561:11, 561:16, 585:9, 585:13, 585:18, 589:17, 589:19, 591:5, 591:8, 603:9, 603:15, 603:18, 608:24, 617:4, 617:8, 617:13, 617:16, 617:19, 617:22, 625:6, 625:9, 658:24, 661:1, 661:4, 666:2, 667:17, 668:11, 669:7, 669:9, 670:1, 670:7, 670:12, 670:15, 671:8, 671:10, 671:15, 671:18, 694:3, 696:21, 696:24, 697:1, 697:5, 701:11, 703:1, 703:3, 703:6, 718:5, 718:11, 718:19, 718:23, 719:2, 722:20, 722:23, 728:13, 728:16, 739:19, 740:23, 740:25, 741:7, 741:10, 773:10, 773:15, 775:6, 792:9, 794:19, 794:21</p> <p>sleeve [1] - 645:7</p>	<p>sleeves [1] - 645:4</p> <p>slight [1] - 745:25</p> <p>slip [4] - 613:18, 656:16, 656:19, 657:9</p> <p>slow [1] - 580:13</p> <p>slowly [1] - 595:12</p> <p>small [1] - 613:22</p> <p>Smith [1] - 572:7</p> <p>Smoke [2] - 711:18, 712:2</p> <p>smoke [16] - 572:24, 573:25, 574:14, 580:13, 580:14, 580:15, 711:19, 711:20, 715:24, 743:1, 743:4, 780:10, 782:8, 788:19, 790:9, 796:1</p> <p>smoking [1] - 596:19</p> <p>smoldering [1] - 582:17</p> <p>snapshot [1] - 685:20</p> <p>so.. [4] - 590:2, 704:15, 752:23, 778:9</p> <p>soaking [42] - 567:17, 593:10, 595:14, 609:6, 609:9, 609:10, 609:18, 614:3, 614:6, 619:19, 619:20, 619:25, 646:3, 646:7, 646:11, 646:24, 647:12, 648:8, 649:3, 650:3, 651:9, 651:11, 651:15, 651:23, 652:19, 652:23, 663:22, 663:25, 664:9, 666:24, 710:19, 750:6, 762:8, 782:10, 782:14, 782:19, 783:9, 784:1, 784:5, 784:8, 799:3</p> <p>software [3] - 694:12, 694:25</p> <p>sold [1] - 723:24</p> <p>solely [2] - 635:20, 710:21</p> <p>someone [4] - 575:20, 599:9, 713:14, 792:23</p> <p>sometimes [18] - 573:19, 623:6, 623:7, 629:8, 649:12, 652:4, 652:9, 652:11, 707:23, 708:15,</p>	<p>708:16, 709:18, 714:4, 752:25, 753:2, 753:6, 762:17, 798:15</p> <p>somewhere [5] - 590:11, 647:1, 669:2, 768:25, 793:1</p> <p>soon [3] - 569:13, 685:7, 695:19</p> <p>sorry [30] - 563:4, 565:6, 573:14, 579:13, 596:9, 603:14, 605:11, 636:10, 660:9, 661:1, 661:8, 672:11, 676:3, 676:4, 684:2, 685:2, 687:10, 687:25, 689:21, 707:6, 707:15, 709:11, 711:5, 712:11, 714:6, 732:11, 734:24, 775:3, 779:18, 797:14</p> <p>sounds [1] - 689:18</p> <p>source [73] - 623:13, 623:18, 623:21, 623:25, 624:2, 624:5, 624:9, 624:19, 624:25, 625:2, 625:15, 626:8, 626:23, 627:6, 627:13, 627:16, 628:6, 628:23, 632:9, 633:14, 639:18, 639:20, 639:22, 639:24, 640:4, 640:6, 640:12, 645:20, 650:11, 652:15, 655:16, 657:8, 659:9, 663:16, 667:22, 668:4, 668:7, 699:10, 699:11, 699:13, 717:18, 717:20, 722:4, 722:8, 722:12, 726:10, 726:13, 739:3, 739:6, 739:9, 752:17, 752:25, 753:3, 753:6, 753:11, 753:15, 753:24, 753:25, 754:16, 755:11, 757:12, 761:9, 761:22, 771:11, 778:4, 781:3, 781:5, 788:1, 788:2, 791:1, 796:10, 800:21,</p>
---	---	--	---	---

<p>800:24</p> <p>south [5] - 704:4, 777:7, 777:9, 777:10, 777:12</p> <p>South [1] - 562:11</p> <p>space [1] - 704:19</p> <p>speaking [1] - 748:25</p> <p>specification [1] - 754:8</p> <p>specified [2] - 754:25, 780:6</p> <p>specifies [1] - 753:15</p> <p>spelled [1] - 729:2</p> <p>spend [1] - 727:2</p> <p>split [1] - 726:24</p> <p>spoken [1] - 646:15</p> <p>spot [3] - 633:9, 679:23, 746:25</p> <p>spot-check [1] - 679:23</p> <p>spots [2] - 736:6, 768:12</p> <p>spreadsheet [7] - 598:13, 598:16, 687:14, 687:16, 700:14, 700:21, 702:10</p> <p>spreadsheets [2] - 683:15, 698:19</p> <p>stack [8] - 563:10, 590:19, 591:16, 592:24, 593:3, 603:25, 620:7, 786:14</p> <p>Stage [7] - 596:6, 596:12, 596:24, 597:1, 643:3, 643:11, 643:12</p> <p>stage [1] - 683:2</p> <p>stand [1] - 780:5</p> <p>standalone [1] - 662:7</p> <p>standard [20] - 611:10, 620:24, 631:16, 638:6, 644:16, 646:10, 653:18, 701:25, 702:1, 716:11, 735:8, 745:7, 745:17, 745:22, 746:5, 757:17, 758:7, 758:8, 776:2, 784:4</p> <p>standards [9] - 661:12, 663:22, 688:16, 693:13, 698:19, 700:5, 700:9, 700:14, 702:19</p> <p>standing [12] - 578:14, 635:15, 642:2,</p>	<p>644:23, 652:22, 765:10, 768:16, 768:23, 776:23, 785:1, 785:5, 792:25</p> <p>standpipe [8] - 581:4, 581:6, 614:24, 615:1, 652:8, 657:15, 781:22, 782:22</p> <p>standpipes [8] - 581:4, 581:7, 593:14, 744:6, 783:6, 786:23, 786:24, 787:1</p> <p>standpoint [1] - 674:20</p> <p>stands [2] - 563:5, 563:14</p> <p>startup [1] - 588:22</p> <p>statement [2] - 700:18, 722:13</p> <p>stating [1] - 647:11</p> <p>stationary [1] - 576:10</p> <p>status [1] - 695:12</p> <p>stay [1] - 597:20</p> <p>staying [1] - 651:6</p> <p>stays [1] - 683:8</p> <p>steam [1] - 662:23</p> <p>Steel [51] - 561:4, 561:10, 566:17, 569:20, 571:25, 572:4, 572:7, 572:15, 573:15, 581:24, 584:7, 584:14, 585:21, 587:16, 587:19, 597:11, 648:1, 649:23, 654:7, 663:19, 664:2, 664:7, 665:4, 665:8, 665:18, 665:24, 675:24, 675:25, 676:5, 676:7, 681:24, 683:11, 684:11, 684:12, 684:13, 685:9, 685:24, 687:3, 691:12, 691:14, 694:15, 695:6, 695:8, 695:17, 696:4, 696:13, 699:3, 709:3, 723:17, 730:4, 800:7</p> <p>Steel's [5] - 621:14, 625:4, 691:24, 693:2, 695:2</p> <p>step [6] - 669:10, 703:4, 722:21, 728:16, 741:1, 741:6</p> <p>steps [3] - 581:12,</p>	<p>731:2, 731:5</p> <p>stop [10] - 592:3, 629:5, 652:4, 652:11, 658:7, 658:8, 658:12, 678:6, 737:13, 784:7</p> <p>stopped [3] - 572:15, 572:21, 760:7</p> <p>stops [1] - 698:25</p> <p>stopwatch [3] - 678:11, 737:13, 762:8</p> <p>stricken [1] - 612:8</p> <p>strictly [1] - 716:15</p> <p>structurally [1] - 579:1</p> <p>subject [1] - 643:24</p> <p>Subsection [2] - 660:25, 661:3</p> <p>substantially [1] - 595:20</p> <p>subtract [1] - 687:6</p> <p>success [1] - 692:3</p> <p>summary [4] - 674:13, 698:22, 700:1, 702:11</p> <p>summing [2] - 627:22, 757:3</p> <p>sun [22] - 642:7, 642:10, 642:12, 666:6, 666:12, 666:15, 666:16, 666:17, 666:18, 769:3, 769:6, 777:15, 777:18, 777:21, 784:23, 785:12, 785:22, 789:9, 791:16, 791:20</p> <p>Sun [1] - 784:10</p> <p>supervisor [4] - 599:25, 600:3, 601:2, 601:6</p> <p>supervisors [1] - 599:7</p> <p>supposed [6] - 754:4, 754:7, 754:9, 781:6, 781:13, 798:21</p> <p>Swallow [5] - 674:24, 679:22, 682:21, 695:25, 721:14</p> <p>swallow [1] - 683:18</p> <p>swear [1] - 655:23</p> <p>swipe [1] - 567:3</p> <p>sworn [10] - 561:13, 561:14, 561:20, 670:17, 671:23, 703:11, 719:4, 723:2, 728:22, 741:16</p>	<p>system [25] - 593:15, 654:4, 677:25, 678:2, 679:5, 684:14, 684:15, 684:19, 684:22, 684:25, 685:7, 689:19, 690:3, 690:4, 690:22, 692:13, 695:2, 695:3, 695:5, 695:8, 695:10, 695:23, 696:7, 696:14</p> <p>systems [1] - 701:7</p>	<p>742:25, 757:12, 792:18, 796:22</p> <p>territory [1] - 616:6</p> <p>test [9] - 593:3, 622:17, 623:24, 649:23, 663:18, 724:14, 724:15, 790:5, 790:20</p> <p>testified [10] - 561:20, 670:17, 671:23, 686:17, 693:8, 703:11, 719:4, 723:2, 728:22, 741:16</p> <p>testify [2] - 668:23, 671:21</p> <p>testifying [1] - 561:12</p> <p>testimony [8] - 640:19, 643:4, 643:20, 668:17, 668:20, 685:14, 731:11, 757:7</p> <p>testing [77] - 592:25, 623:13, 623:18, 623:21, 623:25, 624:3, 624:6, 624:9, 624:19, 624:25, 625:3, 625:15, 626:9, 626:23, 627:6, 627:13, 627:16, 628:6, 628:23, 632:9, 633:14, 639:18, 639:20, 639:24, 640:4, 640:6, 640:12, 645:20, 650:12, 652:15, 655:16, 657:8, 659:9, 663:16, 667:22, 668:4, 668:8, 695:3, 699:10, 699:11, 699:13, 717:18, 717:20, 722:4, 722:9, 722:12, 726:11, 726:14, 729:15, 730:25, 739:3, 739:7, 739:10, 752:17, 752:25, 753:3, 753:7, 753:11, 753:15, 753:24, 753:25, 754:16, 755:11, 757:12, 761:9, 761:22, 771:11, 778:5, 781:4, 781:6, 788:1, 788:2, 791:1, 796:10, 800:21, 800:24</p>
T				
			<p>Tab [4] - 621:15, 730:5, 730:6, 735:22</p> <p>tablet [10] - 677:6, 677:14, 678:10, 680:8, 681:5, 708:4, 708:5, 721:22, 725:19, 733:23</p> <p>tabletop [1] - 735:19</p> <p>tablets [2] - 682:7, 735:18</p> <p>tabs [1] - 621:15</p> <p>takeaway [1] - 570:20</p> <p>talks [1] - 690:11</p> <p>tally [1] - 761:19</p> <p>tank [1] - 563:9</p> <p>tasked [2] - 593:6, 683:18</p> <p>technically [2] - 652:1, 685:5</p> <p>technician [12] - 562:24, 563:8, 564:23, 565:2, 594:25, 599:11, 704:13, 704:19, 741:25, 742:4, 747:21, 759:21</p> <p>technicians [1] - 742:8</p> <p>temperature [1] - 596:15</p> <p>term [5] - 583:5, 583:6, 614:10, 629:10, 667:5</p> <p>terms [28] - 566:24, 571:13, 577:11, 578:5, 579:16, 584:21, 586:2, 592:10, 592:23, 607:18, 608:17, 609:21, 609:25, 610:2, 616:10, 618:17, 627:12, 627:16, 628:5, 664:21, 676:25, 692:3, 695:5, 707:9,</p>	

<p>tests [2] - 691:7, 755:7 text [1] - 685:1 thanked [1] - 570:7 that'd [1] - 783:20 theirs [1] - 736:7 themselves [1] - 561:7 then-ACHD [1] - 616:20 thereabouts [1] - 760:9 thereafter [1] - 663:7 they've [1] - 707:2 thinking [1] - 716:2 third-party [3] - 592:9, 592:19, 691:1 thirds [1] - 625:6 thirteen [1] - 723:21 Thompson [2] - 566:15, 658:11 three-day [1] - 712:8 three-fourths [1] - 625:12 three-quarters [1] - 797:15 throughout [4] - 571:17, 571:23, 581:23, 586:10 tidy [1] - 567:25 time-wise [1] - 709:17 timed [3] - 762:5, 762:6, 762:7 timeframe [4] - 586:21, 588:2, 623:22, 641:14 timing [3] - 629:2, 680:2, 762:10 tires [1] - 586:8 title [3] - 598:8, 633:25, 755:20 titled [1] - 689:13 TO [1] - 560:1 today [4] - 561:12, 567:10, 589:11, 595:18 tolerances [1] - 729:17 took [9] - 595:9, 629:11, 636:19, 664:13, 675:21, 675:22, 767:10, 769:23 top [50] - 576:19, 576:21, 577:16, 578:16, 579:5, 579:24, 580:4, 580:9, 580:25, 593:25, 604:2, 611:21, 633:11, 638:22, 648:2,</p>	<p>660:13, 660:14, 661:22, 683:8, 694:20, 699:23, 714:14, 736:14, 737:21, 768:5, 771:25, 772:3, 772:4, 772:7, 772:13, 772:16, 772:21, 774:12, 775:14, 776:12, 777:20, 784:10, 784:19, 789:8, 795:1, 796:14, 796:17, 796:18, 796:23, 796:25, 797:3, 797:6, 798:3 topside [27] - 567:18, 578:17, 580:25, 581:1, 581:14, 611:16, 612:18, 612:21, 613:3, 613:7, 653:13, 653:14, 653:15, 653:23, 677:8, 708:14, 708:22, 708:23, 711:11, 720:24, 720:25, 724:20, 733:7, 740:3, 744:5, 786:19, 786:22 topsides [3] - 593:10, 593:11, 593:12 total [13] - 628:14, 637:14, 637:21, 637:22, 638:1, 638:2, 638:3, 727:9, 727:16, 727:18, 761:16 totally [1] - 588:16 touched [1] - 576:7 toward [1] - 777:11 towards [2] - 595:10, 625:12 tower [2] - 579:22, 710:17 track [2] - 579:12, 762:8 tracks [4] - 579:10, 579:11, 579:14, 586:8 traction [5] - 579:9, 579:10, 579:12, 579:13 trade [1] - 599:8 trailer [8] - 679:10, 679:17, 682:16, 707:11, 735:12, 735:13, 735:16, 736:5 train [3] - 579:19,</p>	<p>595:5, 778:18 trained [11] - 607:13, 615:4, 623:16, 641:9, 675:17, 677:5, 759:24, 762:15, 785:24, 786:2, 786:9 trainer [1] - 657:2 trainers [2] - 763:21, 787:23 training [53] - 563:8, 565:14, 565:16, 570:10, 570:14, 595:7, 609:21, 622:24, 624:5, 624:8, 626:4, 645:14, 649:21, 657:25, 658:8, 658:12, 658:19, 673:13, 690:11, 690:14, 690:17, 699:9, 699:12, 704:16, 717:22, 722:8, 722:16, 724:1, 724:3, 726:13, 726:18, 729:20, 730:18, 730:19, 730:23, 730:24, 730:25, 731:13, 733:12, 739:6, 739:12, 752:14, 752:15, 754:20, 754:23, 755:1, 755:3, 756:16, 761:4, 774:20, 774:21, 774:24 transmission [4] - 695:6, 695:24, 695:25, 743:1 transmit [1] - 701:16 transmitted [1] - 680:18 travel [2] - 580:9, 762:7 traveling [1] - 620:5 traverse [25] - 629:9, 629:12, 632:1, 632:14, 654:18, 663:6, 678:12, 678:13, 711:11, 711:14, 733:8, 737:9, 737:10, 762:17, 762:18, 770:22, 786:25, 787:1, 787:4, 787:6, 787:11, 787:13, 787:17, 789:9 traverses [1] - 678:6 treat [1] - 597:9</p>	<p>treatment [2] - 563:11 tried [1] - 612:15 trouble [1] - 684:17 truck [1] - 662:23 trunk [1] - 619:7 tube [6] - 666:10, 667:3, 667:6, 667:9, 780:19, 781:24 twelve [5] - 637:12, 709:19, 709:20, 732:10, 732:11 twenty [1] - 642:3 twenty-five [1] - 642:3 twice [3] - 594:18, 594:19, 711:23 two-door [1] - 661:25 two-minute [4] - 646:25, 647:2, 648:24, 664:15 two-sided [1] - 604:8 two-thirds [1] - 625:6 two-year [2] - 563:1, 563:2 types [11] - 593:6, 706:1, 720:21, 724:19, 738:18, 744:24, 746:11, 746:19, 799:8, 799:11 typical [9] - 566:23, 707:8, 708:1, 708:2, 711:6, 721:5, 721:8, 732:16, 770:2 typo [3] - 601:10, 601:13, 601:14</p>	<p>696:13, 699:3, 701:17, 709:3, 723:17, 730:4, 800:7 U.S.S [4] - 607:22, 610:13, 611:16, 614:4 ultimately [1] - 597:16 uncomfortable [1] - 658:18 underside [1] - 581:9 understood [1] - 732:16 uniforms [1] - 735:18 unit [1] - 572:7 union [1] - 588:14 United [3] - 561:4, 648:1, 756:6 University [1] - 673:7 updated [1] - 752:22 upgrades [1] - 694:24 upgrading [1] - 684:19 upside-down [1] - 604:7 US [3] - 585:9, 585:14, 585:15 usable [1] - 695:22 useful [1] - 608:20 uses [5] - 644:17, 646:10, 685:12, 760:21, 776:3 Utility [1] - 675:19</p>
V				
<p>vacation [2] - 793:6, 793:7 vacations [1] - 725:1 valid [3] - 683:2, 683:10 validates [1] - 683:8 value [1] - 614:21 Valves [1] - 729:11 vantage [1] - 740:5 variability [2] - 664:21, 664:22 varies [6] - 630:11, 651:22, 652:9, 690:20, 707:16, 717:5 various [2] - 586:10, 656:16 vary [3] - 630:10, 664:12, 770:5 VE [2] - 564:4, 564:5 vehicle [2] - 567:3, 597:20 veolia [1] - 584:9 Veolia [39] - 564:13, 571:22, 572:12,</p>				

<p>585:6, 585:7, 585:8, 585:9, 585:14, 585:16, 585:17, 592:16, 592:19, 601:4, 601:25, 608:1, 609:8, 611:19, 614:6, 616:19, 617:1, 643:14, 643:15, 664:4, 664:6, 665:11, 692:18, 692:19, 705:18, 706:3, 706:12, 709:3, 709:10, 710:13, 719:16, 719:18, 719:22, 792:18, 794:8, 800:18 Veolia/US [1] - 565:5 versus [2] - 561:4, 574:7 vertical [4] - 638:16, 639:4, 660:10, 794:25 VEs [2] - 602:17, 608:4 via [2] - 593:24, 695:1 vice [1] - 674:10 Vice [1] - 672:9 Victor [1] - 729:3 view [9] - 624:14, 629:16, 662:1, 662:20, 683:12, 684:13, 776:12, 780:7, 784:18 viewable [1] - 683:3 violates [1] - 659:15 violation [6] - 601:9, 613:7, 643:23, 699:2, 701:22, 702:18 violations [7] - 613:5, 636:22, 659:11, 698:13, 701:5, 702:8, 702:16 virtue [1] - 588:22 visible [1] - 663:6 visible [47] - 564:6, 566:8, 566:11, 593:8, 601:17, 609:17, 618:8, 618:21, 619:14, 619:20, 619:22, 626:10, 626:14, 631:22, 632:2, 632:5, 632:9, 640:7, 640:13, 640:15, 640:20, 641:7, 645:2, 645:6, 656:7, 661:12, 661:23,</p>	<p>662:16, 681:8, 685:24, 696:16, 711:15, 730:7, 742:20, 743:22, 744:10, 744:25, 745:5, 749:23, 750:10, 750:16, 750:23, 751:6, 751:9, 751:16, 756:5, 769:4 vision [5] - 566:20, 766:15, 766:20, 766:25, 767:7 visual [3] - 742:17, 742:18, 751:1 visualizing [1] - 576:3 Vivendi [1] - 585:15 volume [2] - 755:14, 775:8 Volume [5] - 662:3, 693:2, 730:4, 755:15, 775:6</p>	<p>wearing [3] - 569:24, 570:7, 570:10 web [2] - 677:6, 677:20 web-based [1] - 677:6 Wednesday [2] - 561:3, 725:4 Wednesdays [1] - 725:6 week [24] - 568:16, 568:21, 597:22, 597:23, 597:24, 683:25, 684:1, 684:3, 684:4, 707:24, 709:25, 710:1, 710:3, 710:4, 721:4, 724:23, 725:2, 727:3, 732:1, 758:9, 758:10, 758:11, 758:25 weekends [3] - 710:8, 732:19, 732:20 weekly [1] - 683:16 weeks [4] - 730:22, 747:5, 747:23, 793:5 while.. [1] - 662:17 white [2] - 580:14, 711:20 whole [10] - 570:16, 588:14, 625:17, 641:19, 651:3, 685:3, 688:22, 748:8, 748:9, 772:10 Wi [1] - 682:12 Wi-Fi [1] - 682:12 wide [6] - 634:24, 635:2, 635:14, 765:23, 766:1, 766:8 width [1] - 577:21 width [2] - 576:14, 576:19 WILLIS [73] - 561:8, 561:18, 561:22, 585:20, 589:13, 589:15, 589:18, 589:20, 590:7, 590:23, 591:7, 591:22, 603:11, 603:16, 603:20, 603:22, 604:5, 608:25, 609:3, 617:3, 617:10, 617:14, 617:21, 644:5, 644:7, 659:1, 659:3, 661:3, 661:5, 666:1, 667:19, 667:21, 668:10, 669:8, 669:13, 669:21, 670:4, 670:6, 670:9,</p>	<p>670:14, 670:19, 671:7, 671:13, 671:20, 671:25, 693:23, 694:1, 694:4, 696:20, 697:3, 697:6, 701:13, 701:15, 702:25, 703:8, 703:14, 716:18, 718:3, 718:9, 718:14, 722:19, 726:23, 728:12, 739:21, 739:23, 740:22, 773:5, 792:1, 792:11, 792:12, 794:20, 794:22, 794:23 Willis [10] - 561:8, 561:16, 658:25, 667:18, 670:12, 701:11, 703:6, 718:7, 739:19, 792:9 Willis's [1] - 668:18 wind [15] - 576:9, 612:1, 642:17, 642:20, 653:3, 769:9, 769:12, 777:3, 777:21, 785:8, 785:13, 785:16, 786:7, 786:10, 789:9 wise [1] - 709:17 withdraw [1] - 573:13 witness [21] - 561:11, 561:17, 561:19, 669:15, 669:20, 670:3, 670:16, 671:22, 703:7, 703:8, 703:10, 718:12, 718:25, 719:3, 722:24, 723:1, 728:18, 728:19, 728:21, 741:12, 741:15 witnessed [2] - 584:19, 585:25 witnesses [3] - 561:14, 718:7, 718:15 wondering [1] - 740:12 workbench [1] - 735:19 Works [22] - 566:8, 581:24, 584:15, 584:24, 585:2, 607:6, 675:4, 675:25, 676:10, 676:11, 676:22, 692:21, 703:24,</p>	<p>705:9, 705:23, 706:15, 706:19, 707:10, 723:17, 726:25, 792:14, 800:6 works [7] - 592:8, 640:8, 640:14, 670:6, 685:7, 742:8, 782:20</p>
W				
	<p>wake [1] - 567:1 walk [9] - 566:23, 708:21, 711:12, 711:13, 713:13, 713:22, 714:2, 714:11, 772:5 walked [1] - 570:5 walking [6] - 606:5, 654:23, 713:15, 713:21, 714:14, 762:19 walks [3] - 571:20, 627:7, 662:19 walkthrough [1] - 731:14 wall [1] - 578:8 Walt [2] - 692:25, 731:22 WALTER [1] - 703:10 Walter [1] - 703:19 Washington [1] - 562:7 wastewater [1] - 563:11 watching [2] - 652:7, 731:15 Water [1] - 585:16 water [5] - 563:11, 564:2, 579:24, 705:22, 710:19 wear [10] - 569:2, 569:16, 569:18, 570:11, 570:12, 570:15, 570:17, 570:20, 571:1, 571:3</p>			<p style="text-align: center;">Y</p> <p>yard [3] - 642:3, 716:10, 716:12 yards [1] - 577:24 year [25] - 563:1, 563:2, 586:22, 586:25, 588:3, 588:16, 589:6, 589:9, 594:18, 594:19, 676:6, 676:14, 686:19, 691:3, 691:4, 691:5, 691:6, 691:8, 711:23, 721:25, 726:8, 729:8, 775:19, 793:5, 800:13 yearly [1] - 724:14 years [55] - 564:10, 564:11, 564:15, 572:8, 572:22, 572:23, 575:4, 575:25, 585:22, 585:24, 586:11, 588:3, 589:4, 589:5, 589:8, 596:25, 598:25, 599:13, 599:14, 599:15, 599:24, 600:1, 616:16, 641:16, 643:6, 643:13, 643:16, 643:17, 643:18, 649:21, 657:5, 657:19, 664:12, 665:2, 665:10, 673:23, 675:6, 675:7, 692:22, 705:6, 705:20, 706:11, 706:16, 712:4, 719:13, 719:19, 719:20, 719:21, 720:1, 720:2, 720:5, 720:7, 792:15, 792:16, 800:15 yellow [1] - 580:16 yesterday [3] - 625:10, 686:13 younger [1] - 598:25 yourself [5] - 606:25,</p>

660:24, 714:9,
735:25, 746:3

Z

zero [8] - 647:15,
743:8, 743:9,
743:11, 743:14,
743:16, 783:19,
783:21
zeros [2] - 652:7,
652:12