

ALLEGHENY COUNTY HEALTH DEPARTMENT

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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 6, 2018
 at 9:30 a.m.

BEFORE: MAX SLATER, ESQUIRE, Hearing Officer

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20
21
22
23
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25

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PROCEEDINGS OF DECEMBER 6, 2018

1 HEARING OFFICER SLATER: Let's go on the record
2 then. It is Thursday, December 6th, 2018. This is day
3 four of the administrative hearing, United States Steel
4 Corporation versus Allegheny County Health Department.
5 Would counsel please identify themselves for the
6 record?
7
8 MR. WILLIS: Jason Willis for Allegheny County
9 Health Department.
10 MR. DAUSCH: Mark Dausch for U.S. Steel.
11 HEARING OFFICER SLATER: Will any witness who is
12 going to be testifying today, please raise their hand to
13 be sworn in.
14 (All potential witnesses were duly sworn by the
15 court reporter.)
16 HEARING OFFICER SLATER: Mr. Dausch, you may call
17 your first witness.
18 MR. DAUSCH: We will call Bill Clark.
19 BILL CLARK, called as a witness, being
20 previously sworn, testified as follows:
21 DIRECT EXAMINATION
22 BY MR. DAUSCH:
23 Q. Mr. Clark, you're an employee of the Allegheny
24 County Health Department?
25 A. Yes.

1 order that hot idling Batteries 1, 2, and 3 could lead
2 to a permanent destruction of those batteries?
3 A. I believe I heard that. I'm not sure who
4 indicated it.
5 Q. And you believe Angela Crowley, the inspector,
6 told you that?
7 A. I believe, yes.
8 Q. Okay. And Ms. Crowley, the inspector, is the
9 employee at the Health Department who would have the
10 most experience at the actual Clairton plant, correct?
11 A. Yes.
12 Q. She's been there for over 20 years?
13 A. Yeah.
14 Q. Both as a department employee and as a
15 contractor?
16 A. Correct, correct.
17 Q. And so for at least 20 years, she's been able to
18 see the conditions of Battery 1, 2, and 3, correct?
19 A. Yes.
20 Q. And so she would probably be the best person at
21 the Department to have that opinion, that hot idling
22 Batteries 1, 2, and 3 would permanently destroy them; is
23 that fair?
24 A. Yes.
25 MR. DAUSCH: That's all I have.

1 Q. You're in the enforcement section?
2 A. Yes.
3 Q. Been in the enforcement section for about 30
4 years?
5 A. Yes.
6 Q. You had a part in preparing the enforcement order
7 that's the subject of this appeal?
8 A. I don't believe so, not the actual order, the
9 listing of the violations.
10 Q. You worked with Mr. DeLuca to --
11 A. Yes.
12 Q. -- work on the violations that are included in
13 the enforcement order?
14 A. Yeah, yes.
15 Q. And you noted the enforcement order includes a
16 potential penalty that would be a hot idle of two
17 batteries?
18 A. Yes.
19 Q. And you know that there are 10 batteries at the
20 Clairton plant?
21 A. Yes.
22 Q. And you know that Batteries 1, 2, and 3 are the
23 oldest of those 10 batteries?
24 A. Yes.
25 Q. The Department knew in preparing the enforcement

1 HEARING OFFICER SLATER: Mr. Willis?
2 CROSS-EXAMINATION
3 BY MR. WILLIS:
4 Q. Mr. Clark, do you have any recollection of U.S.
5 Steel Clairton Coke Works having going into hot idle in
6 the past 10 years between 2009 and -- or 2008 and 2018?
7 A. The only recollection I have is from testimony --
8 Q. Okay.
9 A. -- that I heard here.
10 Q. Okay. Are you familiar with the 1987 steel
11 strike?
12 A. Yes.
13 Q. Do you recall whether or not the batteries at
14 Clairton Coke Works went on idle during that steel
15 strike?
16 A. Yes.
17 Q. Do you remember how long those batteries went on
18 hot idle?
19 A. I believe around six, seven months.
20 Q. Okay. Are you familiar with the shed that's
21 surrounding the -- or on the coke side of Battery B?
22 A. Yes.
23 Q. To your understanding, is that a pollution
24 control device?
25 MR. DAUSCH: I'm going to object. I think the

1 direct was very narrow and now we are getting outside of
2 that direct.

3 MR. WILLIS: I was going to say, the Rules of
4 Evidence are very liberal with respect to administrative
5 proceedings. In fact, we don't really follow them with
6 the exception of hearsay and relevancy.

7 HEARING OFFICER SLATER: Mr. Willis, I'm going to
8 over -- I'm going to overrule Mr. Dausch's objection,
9 but I would like you to keep the scope of this line of
10 inquiry fairly narrow.

11 MR. WILLIS: Okay.

12 BY MR. WILLIS:

13 Q. So my question was, do you recall whether or not
14 the shed on the coke side of Battery B is a pollution
15 control device? That's your understanding?

16 A. Yes.

17 MR. WILLIS: I have no further questions.

18 MR. DAUSCH: Nothing further.

19 HEARING OFFICER SLATER: All right. Mr. Clark,
20 you may step down.

21 And, Mr. Dausch, you may call your next witness.

22 MR. DAUSCH: Our next witness will be Mike
23 Rhoads.

24 MICHAEL RHOADS, called as a witness, being
25 previously sworn, testified as follows:

1 In 2009, I transferred from our Keetac plant to
2 our Gary steelmaking operations in Gary, Indiana. I was
3 the division manager of steelmaking in our south
4 steelmaking operations in Gary, Indiana.

5 In 2011, I transferred from Gary, Indiana, to our
6 fully integrated steelmaking facilities in the Republic
7 of Serbia. Initially, I was the director of operations
8 over the entire operation. Ultimately, I became the
9 vice president and general director of our Serbian
10 steelmaking operations where I supervised over 5,400 men
11 and women making steel in Serbia.

12 In 2012, I transferred back from the Republic of
13 Serbia where I became the director of reliability
14 assurance in our North American flat-rolled operations.
15 My area of focused responsibility was for our coke-
16 making assets in North America. From 2012 to 2015, I
17 served in this capacity.

18 In 2015, I took my current role as a plant
19 manager at the Clairton plant.

20 Q. And so how many years total do you have of
21 experience working at the Clairton plant?

22 A. I have about 17 years of experience working at
23 the Clairton plant, and I have about 20 years of total
24 experience working with our coke-making assets.

25 Q. And do you have any positions or have you had any

1 DIRECT EXAMINATION

2 BY MR. DAUSCH:

3 Q. Can you introduce yourself to Mr. Slater?

4 A. Yeah, my name is Michael Rhoads. I'm the plant
5 manager at United States Steel Corporation, Clairton
6 Works.

7 Q. And as the plant manager, what are your duties?

8 A. My responsibilities include oversight of the
9 entire staff at the facility, at the Clairton facility,
10 and I'm responsible for all the day-to-day operations
11 and maintenance that takes place at the Clairton plant.

12 Q. And can you tell us a little bit about your
13 employment history with U.S. Steel?

14 A. Yeah. I started my employment with U.S. Steel
15 actually at the Clairton plant in 1994. I worked my
16 first 13 years in industry at Clairton; progressed
17 through positions of various responsibility, increasing
18 responsibility, ultimately culminating, in 2005, that I
19 was named the division manager of coal, coke, and
20 services. So at that time, I was responsible for all of
21 the coal handling facilities, all of the coke-making
22 operations in the plant.

23 In 2007, I departed the Clairton plant. I
24 transferred to our Keetac iron ore mine in Keewatin,
25 Minnesota, where I was the plant manager there.

1 positions in any coke-making or coke-industry trade
2 groups?

3 A. I have, yes. In 2005 to 2006, I served as the
4 co-chair of the AISI Coke Making Subcommittee, and I'm
5 actually currently on the Board of Directors for the
6 American Coke and Coal Chemical Institute, the ACCI.

7 Q. And what, in general, are those trade groups?

8 A. Those trade groups are groups that bring industry
9 professionals together to talk about manufacturing
10 issues. We talk about manufacturing. We talk about
11 environmental. We talk about safety and health issues.

12 Q. And does that allow you to learn about coke
13 plants outside of the Clairton plant?

14 A. It does, yes. Typically, when we're having
15 meetings with those organizations, we tour other
16 operations.

17 Q. What's your educational background?

18 A. I have a Bachelor's in science and chemical
19 engineering from the University of Pittsburgh, and I
20 have a Master's in business administration from Duquesne
21 University.

22 Q. Okay. I want to talk a little bit about the
23 history of the Clairton plant. Can you tell us a little
24 bit about its history and how long it's been in
25 existence?

1 A. Yes. The Clairton plant actually started
2 operation in 1901. At that time, it was an integrated
3 steelmaking facility.

4 The first byproduct coke ovens were installed at
5 the Clairton plant in 1918. So we have been making coke
6 and byproduct ovens at Clairton now for 100 years.

7 Clairton is the largest metallurgical coke plant
8 in North America. We have 10 coke batteries with 708
9 slotted coke ovens.

10 Q. How big is the footprint of the Clairton plant?

11 A. The plant is about 3.3 miles from north end to
12 south end. It's a very large facility.

13 Q. And today, approximately how many employees work
14 at the Clairton plant?

15 A. We employ approximately 1,200 men and women at
16 the Clairton facility. Those are direct U.S. Steel
17 employees. And on a typical day, we will have 300 to
18 400 contract employees in the plant.

19 Q. The coke that's produced at the Clairton plant,
20 what is it used for?

21 A. The coke that we produce at Clairton is used
22 across our North American operations and our iron-making
23 facilities. Coke is used in a blast furnace in an iron-
24 making facility to refine crude iron ore.

25 So you're essentially -- it provides fuel, but it

1 So once the coal is in the coal storage bunker,
2 that coal is then dropped into, by gravity, a coal
3 charging car or a larry car that travels across the top
4 of this coke battery.

5 So once the coal is in that coal charging car,
6 that coal charging car then departs the bunker. And you
7 can see in this picture -- it's not real clear but you
8 can see the rendition -- there are four lids on top of
9 each of the 708 slotted ovens in coke plant.

10 So lids are removed and the coal charging car
11 positions itself on top of the oven that's scheduled to
12 be charged. And the coal is charged by gravity; or in
13 some cases, there is a screw extrusion device on the
14 coal charging car. But the coal is charged into
15 these -- each of these slotted ovens.

16 Once the charge is complete, the coal charging
17 car comes off, the lids have been replaced, the lids are
18 sealed up, and the coking cycle begins.

19 You've heard testimony during the course of these
20 proceedings about the pusher side. That references the
21 side of the coke battery where the pusher machine sits.

22 The pusher machine is responsible for removing
23 the door from the pusher side and pushing the hot coke,
24 at the conclusion of the coking cycle, out of the oven.

25 You've heard testimony about the coke side. This

1 also provides a reducing agent to reduce and make a pure
2 form of iron in the blast furnace.

3 Q. Okay. I want to take a step back now and talk
4 generally about how the coke-making process works, and
5 to use that -- or to do that, I would like to use
6 Exhibit 40, page 1.

7 And I also have a blow-up behind you of this
8 diagram that might help you with your testimony, Mr.
9 Rhoads.

10 A. Okay.

11 Q. It would be in the second volume of U.S. Steel's
12 exhibits.

13 A. Okay.

14 Q. Exhibit 40, page 1.

15 HEARING OFFICER SLATER: And this diagram that
16 Mr. Rhoads is holding is just a larger version of this?

17 MR. DAUSCH: It is just a blow-up.

18 MR. RHOADS: So this is a typical rendition of a
19 coke plant, and it just kind of lays out the process
20 flow to get the raw materials from the raw material
21 handling to coke battery proper.

22 So at Clairton, all of our coal comes by river
23 barge and it has to be offloaded, and then we have a
24 series of blending and conveying equipment that conveys
25 the blended coal to a coal storage bunker.

1 depiction represents the coke side. So this is where
2 the door machine sits, and the door machine is
3 responsible for removing the door at the conclusion of
4 the coking cycle and then inserting a coke guide into
5 the coke oven to allow the coke to flow out of the oven
6 and into the waiting quench car that sits over here on
7 the coke side to catch the hot coke.

8 So once the coal is charged, it bakes in the
9 oven, in the absence of oxygen or air, for approximately
10 18 hours. It depends on the battery. It depends on the
11 operating condition but at least 18 hours.

12 At the conclusion of the coking cycle, you push
13 that hot coke into this waiting catch box on this quench
14 car. The quench car then takes that hot coke -- it will
15 be typically about 1,800 degrees Fahrenheit -- into the
16 quench tower where you pour water onto that 1,800-degree
17 Fahrenheit hot coke and you cool it down to approximately
18 500 degrees Fahrenheit.

19 That coke -- quenched coke then exits the quench
20 tower in the hot car, comes out here to the coke wharf.
21 You dump the coke onto the coke wharf, and then a series
22 of conveyers takes it through a screening station. And
23 we load most of our coke into railroad cars and then
24 ship that coke to one of our ten blast furnaces in North
25 America.

1 BY MR. DAUSCH:

2 Q. And how many coke batteries are depicted on
3 Exhibit 40, page 1?

4 A. This is a cutaway section basically of just one
5 coke battery. So it gives you kind of a cross-sectional
6 representation. All of our batteries would be much
7 larger than what's depicted in this picture.

8 Q. Okay. You can put that down for now.

9 A. Okay.

10 Q. Mr. Rhoads, in addition to the coke batteries,
11 are there other sources at the Clairton plant that are
12 subject to air emissions regulations?

13 A. There are, yes.

14 Q. And can you generally describe what those are?

15 A. Yeah. One of our large sources is the -- we have
16 several boilers at the facility where we produce steam
17 for the operation.

18 We have two large, high-pressure boilers, 900
19 pound, 900-degree Fahrenheit boilers. They combust the
20 clean coke oven gas to generate the steam, and we
21 generate some power at the Clairton facility. We have
22 four smaller pinnion walls on coke the batteries, also
23 emission sources.

24 In addition to that, through the coking process,
25 as you drive the volatile matter off of the coal, you

1 collect the foul gas that is emitted from the coke ovens
2 and you process that through a byproduct recovery
3 process and then a gas cleaning process, and that clean
4 gas is subject to hydrogen sulfide emissions limits.

5 Q. The enforcement order that's the subject of this
6 appeal, does it contain alleged violations for all of
7 the different air and emission sources you've described?

8 A. No.

9 Q. What does it relate to?

10 A. It relates to fugitive emissions from the coke
11 battery portion of the plant proper.

12 Q. Okay. I want to talk a little bit about those
13 fugitive emission sources from the batteries, and let's
14 use Exhibit 40, page 2 to do that. And we also have a
15 blow-up of that if it helps you.

16 A. Okay.

17 Q. And before we go through -- and, Mr. Rhoads,
18 could you just angle it so that --

19 A. Yeah.

20 Q. So before going through all of the numbers, can
21 you just tell us in general what this depicts?

22 A. This is a very basic depiction of a coke battery.

23 Q. Okay. And does this depiction show both the
24 fugitive emission points and the stack emission points
25 that we have talked about throughout this hearing?

1 A. It does, yes. The stack emission point would be
2 listed as Number 7 here in the exhibit, and the fugitive
3 emission points are all of these other emission points.

4 Q. And can you explain to us what the difference is
5 between a fugitive emission point and a stack emission
6 point?

7 A. Well, I'll start with the stack emission point.
8 The stack emission -- the stack is basically the
9 combustion chimney for the battery.

10 So, obviously, you are heating the coal to form
11 coke at 1,800 degrees Fahrenheit. So each slotted oven
12 is constructed, there's a refractory wall on either side
13 of the oven chamber, and within each of these refractory
14 walls, there are flues, heating flues. And the heating
15 flue is simply to -- where you introduce the clean coke
16 oven gas and air to form combustion.

17 And then the combustion products from heating
18 this coke battery go into a waste heat canal and
19 eventually go out this combustion stack or this chimney.

20 The emissions from that combustion process are
21 monitored continuously by a continuous opacity monitor.

22 Q. Mr. Rhoads, that's an issue I want to talk about
23 next. The battery stack emissions points compared to
24 the battery fugitive emissions points, are they measured
25 differently?

1 A. Yes, they are measured differently in the fact
2 that you have a -- an objective continuous opacity
3 monitor that basically has 100 percent up time in this
4 stack. It's constantly reading the plume that's going
5 out that combustion stack.

6 The fugitive emissions, there's no device or
7 measurement technology. It's basically a human being
8 observing for those fugitive emissions.

9 Q. And those human beings that are doing the
10 observations, those are the inspectors from Keramida and
11 from the county who we've heard from earlier in this
12 hearing?

13 A. That's correct, yes.

14 Q. Okay. I want to talk through the different
15 numbered emissions points, because there has been
16 testimony about them throughout this hearing, and have
17 you explain a little bit about what they are.

18 A. Okay.

19 Q. So if we start with Number 1 on the diagram
20 that's Exhibit 40, page 2, is this a fugitive emissions
21 point that is regulated?

22 A. Yeah. Number 1 illustrates charging, so it's
23 coming from the larry car. It's basically the action of
24 putting the coal into the coke oven to start the coking
25 cycle.

1 Q. And if we look at the picture that's on Exhibit
2 40, page 10, would that help you describe the charging
3 process?

4 A. Yeah. This is a depiction of, kind of, a
5 cross-section depiction of charging. And what is
6 illustrated here is a larry car sitting on top of the
7 oven.

8 And what you can see here are the four charging
9 portals where you remove the lids. And then the outside
10 of the four charging portals are the connections to the
11 offtake piping where the gas goes.

12 The gas that's being evolved from the coal goes
13 up through that offtake -- and you see the area that
14 looks a little bit like, what we call, a gooseneck
15 because it's the shape of a goose's neck -- and into the
16 foul gas collection system.

17 So, you know, this illustrates charging. And
18 this is a depiction that we use to illustrate what we do
19 to stage charge a coke oven where we drop certain
20 hoppers at certain times to minimize the potential for
21 any fugitive emissions.

22 Q. Okay. Can you explain the practices that U.S.
23 Steel takes to reduce air emissions during the charging
24 process?

25 A. Yeah, we -- so we've got an operator on the larry

1 car that's responsible for the larry car operation. And
2 he's responsible for ensuring that the offtakes are free
3 of restriction, not occluded prior to starting the
4 charge.

5 And then there's an operator that's responsible
6 for operating and actuating the dampers, the dampering
7 system, that isolates the oven from the foul gas
8 collection system. He's also responsible for removing,
9 replacing, and sealing up the lids at the conclusion of
10 the charge.

11 So those operators are trained according to our
12 SOPs and SJPs to follow procedures to minimize any
13 potential for fugitive emissions.

14 Q. What does SOP and SJP stand for?

15 A. Standard operating procedure and safe job
16 procedure.

17 Q. And are there dedicated employees who work on the
18 charging process?

19 A. There are, yes.

20 Q. Okay.

21 A. And that's the larry car operator who is
22 responsible for delivering the coal into the oven
23 according to the stage charging practice; and then the
24 lid man is responsible for sealing up the charging hole
25 lids after the charge has been made.

1 Q. We've heard testimony in this hearing about lids.
2 Are those also called charging ports?

3 A. Yes.

4 Q. Okay. And is that depicted on the diagram?

5 A. Yeah, that's depicted here as Number 2, charging
6 ports, lids. And what a lid is, it's basically the
7 cover that goes over top of the charging portal at the
8 conclusion of the charge.

9 So to start the charge, the larry car operator --
10 or the lid man or the utility person, we call them,
11 removes the lid from the top of the charging portal, the
12 larry car will spot up, and then at the conclusion of
13 the charge, after the coal has all been placed into the
14 oven, the lid man will slide -- ensure that the lids are
15 all slid back on top of the charging portals, and then
16 they will seal the lids up with mud.

17 If you reference page 9 in the binder, there's a
18 picture that shows a typical lid man's position. And
19 with respect to -- he's actually in this photograph
20 sliding a lid back on the charging hole.

21 And then if you look at the lids kind of back
22 from where he's standing, you can see the fresh sealing
23 mud that's applied to the lids to prevent leakage.

24 Q. And what color is the mud on this photograph?

25 A. It's kind of orangish-brown.

1 Q. What's the purpose of using that sealing mud on
2 the lids?

3 A. The sealing mud is -- it's the industry standard
4 practice. Using a slurried mud mixture basically
5 ensures that that material gets into any cracks and
6 voids in the -- between the lid and the casting that
7 that lid sits down in and prevents any emissions from
8 coming out of the lid.

9 Q. Are there dedicated employees who work on the
10 lids?

11 A. Yes, full time.

12 Q. We've heard a lot in this hearing about the doors
13 on the coke ovens. Are those depicted in Exhibit 40,
14 page 2?

15 A. Yeah, the door areas are referenced here. And
16 you can see, there are two arrows coming up to this
17 Depiction 3, and that's just to represent the pusher
18 side and the coke-side door area on each of the
19 batteries.

20 Q. And if you look at Exhibit 40 on page 7, does
21 that depict coke oven doors?

22 A. Yeah, that's a picture on one of our coke
23 batteries. That's actually a photograph of one of the
24 employees that we have assigned to seal. And they
25 basically are responsible for adjusting, sealing doors

1 as needed. And then, you know, in the event that we've
2 sustained damage to one of the doors, they are
3 responsible for getting a replacement door up on the
4 unit and replacing that door.

5 We have over 60 individuals that are assigned on
6 a daily basis across the facility to ensuring that the
7 doors are properly adjusted and sealed.

8 Q. And so those 60 employees, their job is to work
9 on sealing doors at the coke ovens at Clairton?

10 A. Yes.

11 Q. And can you just explain, in very general terms,
12 what it is that they are doing to help those doors seal
13 and prevent emissions from escaping?

14 A. Yeah. The door is designed with a -- it's a
15 metal-to-metal sealing surface because of the extreme
16 temperatures at which we are operating.

17 So the design of the door -- because of that
18 metal-to-metal sealing surface, there has to be some
19 amount of leakage in order for some of the gas to escape
20 and tar to condense to form a proper oven seal, and that
21 is the standard design of coke oven doors across the
22 industry.

23 These individuals are just making sure that
24 there's proper adjustment; and if there is any, you
25 know, slight leakage, we will use either a product

1 has only offtakes on one side of the coke battery.

2 But the offtake, as I mentioned before, that is
3 where the foul gas that's generated during the course of
4 the coking process exits the coke oven and flows through
5 the offtake into the foul gas collection system or the
6 collector main.

7 Q. And does U.S. Steel employ practices to reduce
8 emissions from the offtakes?

9 A. We do. The -- it's kind of a two-phase process.
10 The larry car operator, or the coal charging car
11 operator, is responsible for ensuring that the cap on
12 top of that offtake is sealed.

13 After he has inspected the offtake prior to the
14 charge, the -- and there's also a patching crew that's
15 responsible for patching that oven. The offtakes are
16 designed -- it's a massive system -- and the offtakes
17 are designed, where the gooseneck slides into the foul
18 gas collection main, there's a slip joint that allows
19 for expansion and contraction and for that pipe to move
20 independent of the collector main system.

21 And then again, where the offtake pipe goes down
22 into the battery, there's a slip joint there, and that
23 allows the battery to expand and contract with ambient
24 temperature fluctuations or rain or something that would
25 change the thermal gradient.

1 called kaowool, it is a ceramic/wool material, to fill
2 in a gap; or this picture actually shows that door
3 coordinator spraying a product called water glass, or
4 sodium silicate, which is just a sticky material that
5 will bond to the door surface and seal it and prevent
6 any type of leakage.

7 Q. And are those industry best practices for sealing
8 doors?

9 A. Yes.

10 Q. Okay. I want to talk now about the offtakes.
11 Are those depicted on Exhibit 40, page 2?

12 A. Yeah, the offtakes are depicted here at Number 4
13 on this diagram. The diagram doesn't give you a very
14 good rendition of the offtakes. If we look at --

15 Q. Picture 8 on Exhibit 40, does that show the
16 offtakes?

17 A. Yeah, Picture 8 is -- this is a topside view of a
18 battery and you can see the various offtakes down either
19 side. So this is a -- this is one of our typical coke
20 batteries where you have a collector main on both sides
21 of the battery.

22 So most of the batteries, nine of the 10
23 batteries at Clairton, have offtakes on both sides,
24 pusher side and coke side.

25 Battery C is newer, a different technology. It

1 Q. And can you explain, just in very general terms,
2 why that expansion and contraction is necessary to be
3 able to occur on the batteries?

4 A. Yeah. As the temperatures on the batteries
5 change with, you know, with ambient weather or rain,
6 heating and cooling causes that expansion and
7 contraction, so you've got to allow for room for
8 movement. So there are soft seal joints, and there's a
9 group of people that are responsible for maintaining and
10 ensuring that there is no leakage from those joints.

11 Q. So U.S. Steel has employees whose jobs are to
12 work to prevent fugitive emissions from offtakes?

13 A. Yes.

14 Q. And what is used to seal the offtakes to prevent
15 those emissions?

16 A. It's typically either a mud material; or at the
17 joints, we use a packing material.

18 Q. Okay. On this picture, page 8 on Exhibit 40,
19 there's a large structure in the top middle of the
20 photograph that's a dark gray. Do you see that?

21 A. Yes.

22 Q. What does that depict?

23 A. Picture 8 is actually a depiction of the topside
24 of Battery B. And what you can see on the left-hand
25 side of Picture 8 is the very top of the coke-side shed

1 on B Battery.

2 Q. Okay. And then what about the tall cylindrical
3 chimney in the top middle of the photograph?

4 A. The tall cylindrical chimney, that's the
5 combustion stack for Battery B.

6 Q. Okay. I want to move on to soaking, which we've
7 also heard about throughout this hearing. Is the
8 soaking emissions point depicted on Exhibit 40, page 2?

9 A. Yeah, the soaking emission is referenced here as
10 Number 5. And what soaking emissions are, at the
11 conclusion of the coke-making cycle, the oven will be
12 isolated from the foul gas collection system.

13 You do that using the damper, the dampering
14 system in the offtake. So you close the damper dish.
15 That isolates the oven from the foul gas collection
16 system.

17 And at that point in time, each one of the
18 offtakes has a cap, and you put that cap into the up
19 position if you — you can see a picture of this if you
20 reference Picture Number 11.

21 Q. And on Picture Number 11, which one of the
22 offtakes is open as you've described?

23 A. If you look towards the right-hand side of the
24 photograph, you can see two of the offtakes with the cap
25 in the up position.

1 of this appeal?

2 A. No.

3 Q. Okay. Number 7 on your diagram you mentioned is
4 the battery stacks; is that correct?

5 A. That's correct, yes.

6 Q. Are there any alleged battery stack violations in
7 the enforcement order that's the subject of this appeal?

8 A. No.

9 Q. Okay. Mr. Rhoads, did you hear testimony earlier
10 in this hearing about a CITE Program that's been
11 employed by U.S. Steel at Clairton?

12 A. I did, yes.

13 Q. Are you familiar with that program?

14 A. I am, yes.

15 Q. And can you explain what that is?

16 A. Well, the CITE Program, to which the county
17 referenced earlier during their testimony, was actually
18 the chemicals and utilities CITE Program. There was
19 specific mention made to the under-40 team, the under-20
20 team.

21 Those are teams that were formed in the chemical
22 byproduct, gas processing portion of the plant. And
23 that was when we were working to get our clean coke oven
24 gas, fuel gas stream, under 40 grains of H₂S and then
25 subsequently, under 20 grains of H₂S.

1 It looks like one is an oven that had just been
2 pushed, and then to the right of that is an oven that is
3 currently in the soaking position. So that's probably
4 the next oven that's going to be pushed.

5 Q. And can you explain, in just very general terms,
6 the idea behind soaking, why it's done?

7 A. Soaking is -- as I said, at the conclusion of the
8 coke-making cycle, the oven's coked out. You open —
9 you basically isolate that oven from the foul gas
10 system, but there may still be some residual gases
11 coming off of that oven, so you open the cap.

12 The gases should ignite, and you sit in that
13 condition, basically at the end of the coking cycle,
14 until it's time for the pusher ram to come through the
15 oven. So it's basically preparing the oven for the
16 pushing process.

17 Q. And is pushing the last fugitive emission point
18 depicted on the diagram that's Exhibit 40, page 2?

19 A. Yeah, pushing is Number 6, and it's basically a
20 real rough rendition in this photograph, just basically
21 pushing the coke with the ram on the pusher machine
22 through the open door on the pusher side, out the open
23 door on the coke side, and into the catch box.

24 Q. Mr. Rhoads, are there any alleged pushing
25 violations in the enforcement order that's the subject

1 There was a week-long training program that was
2 developed for our chemicals and utilities operations
3 personnel where they would sit in a class for a week and
4 basically expand their process knowledge through this
5 week-long, pretty technical training program.

6 Q. And what does CITE stand for?

7 A. CITE stands for continuous improvement to the
8 environment. There is actually two versions of CITE at
9 Clairton. There is the chemicals, utilities version
10 which I just discussed, and we also developed over the
11 years a coking CITE Program which consists of a two-day
12 training where we put our coking battery operations
13 personnel through a two-day training program.

14 It's very specific to the coke operations, coke
15 battery operations, and it's specifically aimed at
16 teaching our operators, you know, how their job impacts
17 the process and how what they do minimizes the impact of
18 fugitive emissions.

19 Q. That CITE Program related to the batteries, has
20 that been updated over the years?

21 A. Yeah, we actually just recently updated that.
22 We updated it during the course of late 2016, early 2017
23 and had, in the latter part of 2017, started training
24 some of the new employees that we were hiring.

25 Q. And was that update done before U.S. Steel ever

1 received the enforcement order that's at issue in this
2 case?

3 A. Yes, it had been started in 2016 and continued
4 through 2017.

5 Q. And why did U.S. Steel update the CITE Program at
6 that time?

7 A. Because we recognized that we were hiring a lot
8 of new personnel and the need was great to ensure that
9 these new employees were armed with the tools, the
10 process knowledge, the job knowledge, and the
11 interaction of the two to improve our fugitive emission
12 performance.

13 Q. Who teaches the CITE Program for the batteries?

14 A. We have a couple of retired U.S. Steel managers,
15 both of which had well over 35 years of active service
16 time with U.S. Steel. Both spent most of their careers
17 in the coking and coking and heating groups in the
18 facility.

19 Q. We had talked earlier that there are 10 batteries
20 at the Clairton plant; is that correct?

21 A. Yeah, there are 10 batteries with 708 slotted
22 ovens.

23 Q. Those 10 batteries, we've heard some testimony,
24 there's differences in their age; is that right?

25 A. Yes.

1 Q. How does Battery C differ from the other
2 batteries in terms of size and technology?

3 A. Battery C is the newest battery in North America.
4 It has the best available technology from an
5 environmental performance standpoint.

6 It has the patented, proven individual oven
7 control system. So each oven is under individual
8 pressure control on the battery, all 85 ovens.

9 Q. Do the air emissions limitations on the C Battery
10 differ from the limitations on the other batteries at
11 the Clairton plant?

12 A. They do, yes. They are more stringent.

13 Q. Okay. And do you know why that is?

14 A. Because it's a newer battery with the best
15 available technology.

16 Q. And are you aware that, for purposes of this
17 appeal, the Department did a calculation of the worst
18 performing batteries in the first quarter of 2018 using
19 the methodology that the Department created in the
20 enforcement order?

21 A. I'm aware of that, yes.

22 Q. And are you aware that Battery C was identified
23 as one of the two worst-performing batteries?

24 A. Yes.

25 Q. How do you think Battery C's performance compares

1 Q. What is the newest battery?

2 A. The newest battery was Battery C. Battery C was
3 constructed from 2008 to 2012. Battery C started
4 operation in 2012.

5 Q. And can you tell us a little bit about the
6 construction process that was involved for Battery C?

7 A. Yeah. Battery C was essentially what we'd
8 consider a foundation-up construction project of a new
9 battery. So what I mean by that is, we basically had to
10 excavate and construct from the foundation of the unit
11 up.

12 So it involved doing all of the concrete, civil
13 work to install the structure, and then basically
14 building the underpinnings for the heating system under
15 the battery.

16 We built the entire battery out of silica brick
17 called a single collector main battery. So we installed
18 all the foul gas handling systems; and as part of that
19 project, we also installed a low-emission quench tower
20 with the battery.

21 Q. And approximately how long did it take to
22 construct Battery C?

23 A. It was a four-year construction process, but
24 construction was suspended during a period of time in
25 2009 due to the significant economic recession.

1 to the other batteries?

2 A. It's better from an emissions standpoint than all
3 of the other batteries.

4 Q. I want to change topics and look at Exhibit 52.
5 Exhibit 52 reflects a consent order between United
6 States Steel and that the Department entered into on May
7 7th, 2018; is that correct?

8 A. Yes.

9 Q. And were you involved in this consent order?

10 A. Yes.

11 Q. Did you sign it?

12 A. Yes.

13 Q. Mr. Rhoads, I want to talk to you a little bit
14 about the regulations at the Clairton plant.

15 How do those regulations compare to other coke
16 plants in the country?

17 A. They are the most stringent regulations in the
18 country.

19 Q. And can you give us some idea of how many
20 standards or regulations that Clairton is subject to or
21 has to meet on a daily basis?

22 A. Yeah. We have inspectors in the facility on a
23 daily basis, as you've heard testimony during the
24 earlier portions of these proceedings. We have County
25 Health Department inspectors. We have Kanamida

1 inspectors. We have Veolia inspectors conducting
2 inspections seven days per week.

3 In addition to that, we have the continuous
4 opacity monitors on all 10 battery combustion stacks.
5 So we literally are subjected to thousands of
6 inspections every day.

7 Q. And can you give us a sense of all the different
8 pieces of equipment that would be inspected on a given
9 day with the different inspectors who are at the plant?

10 A. It's a massive volume of equipment. We have 708
11 slotted coke ovens, each oven has two doors, so that's
12 1,416 doors.

13 Most of our batteries have two offtakes. We have
14 over 1,300 offtakes. Each oven has four lids with the
15 exception of Battery C. There is a fifth portal
16 connection for -- where the U-tube equalizing car hooks
17 up. So there are tens of thousands of points that are
18 inspected on a typical day in addition to the continuous
19 opacity monitors on the stacks.

20 Q. Were you present during Mr. Kelly's testimony at
21 the beginning of the hearing where he said that nowhere
22 is 100 percent compliant?

23 A. Yes.

24 Q. What types of things can occur to prevent a
25 facility like Clairton from reaching 100 percent

1 Q. Is that project the result of the 2016 Consent
2 Judgment that we've heard about in this hearing?

3 A. Yes, it is.

4 Q. Okay.

5 A. In addition to that, we are currently engaged in
6 replacing through-wall refractory on Batteries 19 and
7 20. That project will be about \$16,000,000 at
8 completion.

9 In addition to that, we have been doing a lot of
10 work in our coke oven gas desulfurization facility. We
11 actually changed some of the internals in one of the
12 process unit operations there, made a significant
13 reduction in hydrogen sulfide content in our clean fuel
14 gas, coke oven gas. The cost of that was about
15 1,000,000 bucks; so much smaller than the others but a
16 very significant impact in terms of SO₂ emissions, not
17 just at Clairton but across all of our plants in the Mon
18 Valley.

19 Q. I want to turn now to the enforcement order that
20 is the subject to this appeal. Are you familiar with
21 the corrective action that is contained in this
22 enforcement order that is in addition to the penalty?

23 A. I am, yes.

24 Q. And do you have a general understanding of how
25 the baseline calculation and the two quarters of

1 compliance?

2 A. Well, sometimes equipment doesn't function as
3 it's supposed to. Obviously, with 1,416 doors, that's a
4 significant volume of equipment.

5 But in addition to equipment not functioning,
6 ambient weather conditions -- the plant is out in the
7 open, outside -- so, you know, significant rainfall
8 events, significant ambient temperature changes,
9 variation in coal due to significant rainfall events and
10 coal moisture, a lot of variability goes into all of
11 that.

12 Q. In addition to all of the work practices that you
13 described earlier in your testimony, has U.S. Steel done
14 anything more recently to help improve and maintain its
15 compliance rates at the Clairton plant?

16 A. Yeah, we've done some pretty significant projects
17 just over the course of the past several years.

18 I will go back to 2013. We installed two new
19 low-emission quench towers on Batteries 13, 14, 15 and
20 19, 20. The total cost of that project was
21 approximately \$60,000,000.

22 Over the course of the past several years, we've
23 been engaged on end-flue repair on our Batteries 1, 2,
24 and 3. We are approaching \$60,000,000 in total spent on
25 that particular project.

1 compliance demonstration works?

2 A. I do, yes.

3 Q. What's your understanding?

4 A. Well, my understanding, the calculation is
5 basically broken into two parts. It's going to be a
6 portion of the calculation, or about half the
7 calculation, is going to be based on fugitive emission
8 performance, and the other half of the calculation is
9 based on 20-percent stack compliance based on the
10 continuous opacity monitor readings.

11 Q. And so half of the baseline includes battery
12 stack compliance?

13 A. Yes.

14 Q. Are there any battery stack violations in the
15 enforcement order?

16 A. No.

17 Q. And what does U.S. Steel have to do, to your
18 understanding, to improve upon the baseline pursuant to
19 the enforcement order?

20 A. The baseline was established by the first quarter
21 of 2018's performance. I believe it's 98.15 percent.
22 And pursuant to the enforcement order, U.S. Steel would
23 have to improve upon that performance in the first
24 quarter of 2019; and then subsequently, we would have to
25 improve upon that performance in the second quarter in

1 2019.

2 Q. Okay. And what's the effect of using battery
3 stack compliance to calculate the baseline?

4 A. It significantly elevates the baseline because
5 the battery stack compliance in the first quarter of
6 2018 was 99.34 percent.

7 Q. Battery stack compliance, is that governed
8 already by the 2016 Consent Judgment?

9 A. It is, yes. When we entered the 2016 Consent
10 Judgment, we were in agreement with the County Health
11 Department that we would bring the stacks to 98.5
12 percent compliance.

13 Q. Okay. And U.S. Steel was able to bring
14 compliance above that to 99.384 percent?

15 A. That's correct.

16 Q. That 99.384 percent was then put in the baseline?

17 A. Yes.

18 Q. And given how close 99.384 percent is to 100
19 percent, does that make it more challenging to exceed
20 the baseline on two successive quarters?

21 A. Yeah, it makes it significantly more challenging,
22 because if there's deterioration in that stack
23 compliance percentage from 99.3 down closer to 98.5
24 percent, it's going to be very detrimental to the
25 compliance calculation.

1 the CCMS or the battery stack compliance decreased but
2 stayed above 98.5 percent, is there still a scenario
3 where U.S. Steel would have to hot idle two batteries?

4 A. If we didn't meet the subsequent improving
5 quarters, yes, we would have to idle the two worst-
6 performing coke batteries.

7 Q. Do you have concerns about how this baseline
8 calculation is structured?

9 A. Yeah, I had significant concerns with how the
10 baseline was structured. The baseline calculation
11 essentially penalizes U.S. Steel for improving above the
12 98 or the 98.5 percent in the 2016 Consent Judgment.

13 Q. I want to talk a little bit about Battery B,
14 which we've heard about throughout this hearing. When
15 was Battery B constructed?

16 A. B Battery was constructed in 1982, it started
17 operation.

18 Q. How many ovens does B Battery have?

19 A. Seventy-five ovens.

20 Q. And so it would have 150 doors?

21 A. Yes.

22 Q. Two doors on each oven?

23 A. Uh-huh (affirmative.)

24 Q. Are the B Battery coke-side doors different in
25 any way from the doors on the other batteries?

1 Q. And what's the penalty if U.S. Steel does not
2 improve its baseline once and then again in 2019?

3 A. We have to idle our two worst-performing coke
4 batteries.

5 Q. So what would happen if the first quarter of 2019
6 compliance was 98.9 percent and the second quarter was
7 98.8 percent, so both of them above the baseline?

8 A. We would have to idle our two worst-performing
9 coke batteries.

10 Q. And why is that?

11 A. Because the second quarter was worse than the
12 first quarter.

13 Q. So even if U.S. Steel exceeds the baseline twice,
14 it can still have to hot idle two batteries?

15 A. That's correct.

16 Q. What if the first quarter of 2019 was 98.9
17 percent and the second quarter was the same number, both
18 exceeding the baseline?

19 A. We would have to idle the worse two performing
20 batteries.

21 Q. And why is that?

22 A. Because you didn't make an improvement the
23 subsequent second quarter.

24 Q. What if there was a scenario where U.S. Steel
25 improved its fugitive emissions compliance two times but

1 A. Yeah, the Battery B doors are physically under
2 the emissions shed for the pushing emissions control
3 system for B Battery. So they are physically underneath
4 the shed structure.

5 Q. And was the shed something that was constructed
6 purposefully?

7 A. Yes.

8 Q. Okay. And what is the purpose of the shed?

9 A. The purpose of the shed is to collect the
10 fugitive emissions from the pushing and travel on B
11 Battery. A side benefit of having that pushing emission
12 control shed, though, is the emissions from the coke-
13 side doors are captured within that shed.

14 Q. And can you explain in just general terms how the
15 shed works to control air emissions?

16 A. Yeah. The shed is a very large stainless steel
17 structure that encompasses basically the whole coke side
18 of Battery B. Any emissions that are contained in that
19 shed are evacuated through a duct by large fans that are
20 basically pulling those emissions through a bag house,
21 and the bag house consists of -- there are fabric bags
22 on steel cages, many of them, in this bag house.

23 And the fugitive emissions are drawn through the
24 fabric bags, particulate matter is removed, and the
25 cleaned air and material that has been evacuated from

1 the shed exit a stack on the bag house.

2 Q. So the shed is designed to control air emissions?

3 A. Yes.

4 Q. And what effects have you seen from the shed?

5 A. Well, the shed performance for pushing and travel
6 on B Battery, B Battery is the second-best performing
7 coke battery in the plant from a push and travel
8 perspective, second only to C Battery, the newest and
9 best technology.

10 Q. Were you here for the hearing when Mr. DeLuca
11 testified that he saw the shed one time from a road?

12 A. Yes.

13 Q. Are you aware of any road where you can examine
14 the B Battery coke-side shed?

15 A. No.

16 Q. How many years' experience do you have at the
17 plant?

18 A. I've been at Clairton for 17 years.

19 Q. Do inspectors have to do anything differently to
20 inspect the coke-side doors of the B Battery given this
21 shed?

22 A. They do, yes. If you stand at the normal point
23 where you would inspect doors, you can't see the coke-
24 side doors on Battery B. All you could see is the
25 stainless steel sheeting from the shed.

1 that says that door readings have to be from 25 feet or
2 more away?

3 A. Yes.

4 Q. And would this white area at the bottom of the
5 picture generally be about 25 feet or more away from the
6 doors?

7 A. Yeah, it's more than 25 feet away from the doors,
8 yes.

9 Q. Okay. The individual who's in the picture on
10 Exhibit 40, page 5, where is he standing?

11 A. He's actually standing on the bench, on that
12 battery.

13 Q. And when you are doing door-leak inspections
14 under the coke-side shed, where do you have to stand?

15 A. You have to stand in that same proximity, right
16 on the bench.

17 Q. Where the individual in Picture 5 is standing?

18 A. Yes.

19 Q. So right up on the doors?

20 A. Yes.

21 Q. Would you expect to see more door leaks when you
22 are standing right up on the doors compared to when you
23 are 25 feet or more away from the doors?

24 A. Yes.

25 Q. So when Mr. DeLuca was asked several questions

1 So inspectors actually have to physically be on
2 the coke-side bench where the door machine travels and
3 walk along that bench in very close proximity to the
4 doors to inspect the doors.

5 Q. If we look at Exhibit 40 on page 5, would this
6 help us get an understanding as to where inspectors view
7 door leaks from the B Battery coke-side shed compared to
8 where they typically observe door leaks?

9 A. Yeah, this is a different battery and it's the
10 pusher side of a different battery. But the photograph
11 is taken from a pretty similar perspective of where the
12 inspector would physically walk in a safe area.

13 Obviously, you can't walk inside the path of
14 travel of that pusher machine. That wouldn't be --
15 would not be safe, and that is a restricted area.
16 Nobody is allowed to walk in there.

17 So what the inspector typically does is walk just
18 outside of that pusher rail during their traverse when
19 they are reading battery doors.

20 Q. So typically, an inspector would be standing near
21 the bottom of this picture near the white area?

22 A. Yeah, where you see the white blocks outside of
23 the rail where that pusher machine is riding on, yes.

24 Q. And were you here in the hearing for the
25 testimony about the Department's source testing manual

1 about the number of door leaks seen on the coke side of
2 B Battery compared to the number of door leaks seen on
3 the pusher side of B Battery, is that an apples-to-
4 apples comparison?

5 A. No.

6 Q. Why not?

7 A. Because when you are walking in very close
8 proximity to the doors, you can see much more. You can
9 see even the smallest leaks.

10 Q. Are there federal NESHAP standards that cover
11 door leaks from the B Battery coke-side and push-side
12 doors?

13 A. There are, yes. The NESHAP encompasses the
14 entire battery, both the pusher side and coke side.

15 Q. And are those doors inspected on a daily basis?

16 A. Yes.

17 Q. Are they inspected 365 days a year?

18 A. Yes.

19 Q. And what is U.S. Steel Clairton's compliance
20 percentage with those standards?

21 A. One hundred percent.

22 Q. Are there any B Battery coke-side, door-leak
23 violations in the enforcement order?

24 A. No.

25 Q. Before U.S. Steel received the enforcement order

1 in June of this year, did U.S. Steel have any knowledge
2 that the Department had concerns about the B Battery
3 coke-side doors?

4 A. No.

5 Q. Are you aware of the requirement in the
6 enforcement order that U.S. Steel can only have 10 leaks
7 per month using a yard equivalent calculation on the
8 coke-side B Battery doors?

9 A. Yes, I am.

10 Q. And are you aware that U.S. Steel has to meet
11 this standard every month for the first six months of
12 2019 or hot idle two batteries?

13 A. Yes.

14 Q. Did U.S. Steel participate in any way in a
15 development of that standard?

16 A. No, we did not.

17 Q. When's the first time you learned about it?

18 A. When we received the enforcement order.

19 Q. Mr. Rhoads, if you had an unlimited budget, is
20 there any new technology that you could install to be
21 able to decrease door leaks in the first two calendars
22 of -- the first two calendar quarters of 2019 to meet
23 this standard?

24 A. No.

25 Q. Okay. Can you explain what causes door leaks?

1 A. Well, as I indicated before, door leaks are
2 caused just by the physical condition that the door must
3 perform in. It's very hot, but then you are removing
4 that door sometimes twice a day and replacing it. So
5 it's going through significant thermal shock during the
6 course of that.

7 So the doors are constructed of steel and cast
8 iron and refractory, but your sealing surface is a
9 metal-to-metal sealing surface. And that's the design
10 of every door that I've ever seen in my career.

11 You are relying on that metal-to-metal sealing
12 surface to make a seal; and for it to make a seal, some
13 of the processed gas actually has to escape and condense
14 in that sealing surface.

15 But, you know, sometimes because of the impact,
16 the thermal shock, the abrasion, you know, sometimes you
17 will have some slight deterioration of that sealing
18 surface.

19 You know, we work very proactively to seal that
20 up. But just by nature of the metal-to-metal seal,
21 there's always going to be some leakage.

22 Q. And have you seen the data that the Department
23 used to develop this standard that shows the number of
24 coke-side B Battery door leaks over the last few months?

25 A. I have, yes.

1 Q. And do you recall seeing that, in approximately
2 2017, the number of door leaks started to increase on
3 the B Battery coke side?

4 A. Yes.

5 Q. And was there some reason that this occurred?

6 A. There was, yes.

7 Q. What was that?

8 A. We did an investigation, because we were aware of
9 the deteriorating performance, and as the -- you know,
10 as we were seeing an increase versus our federal
11 standard, we began an investigation. What we determined
12 was when we had -- did the rehabilitation on Battery B
13 from about 2005 to 2009, we had received a couple of
14 batches of bad castings that were placed on the door
15 frames on the coke side of Battery B.

16 And what I mean by bad castings, there were
17 actually defects in the casting that caused cracks to
18 form in the top corners due to all of the heat stress on
19 that side.

20 And when the cracks formed, they opened up to a
21 point where we had a very difficult time making any type
22 of a temporary repair or sealing them up. We attempted
23 to weld them; but because it is a casting, it is very
24 difficult to weld.

25 So we ended up having to order new castings, and

1 we are currently engaged in a project of about 1.5
2 million dollars in expense to replace several of those
3 bad castings.

4 Q. And did U.S. Steel start that process of
5 replacing these castings before it ever received the
6 enforcement order?

7 A. Yeah, we started it in early 2018.

8 Q. And when you started that process, was U.S. Steel
9 still 100 percent compliant with the NESHAP standards?

10 A. Yes.

11 Q. And why was it that U.S. Steel started the
12 process anyway?

13 A. Because we saw the deterioration and we were
14 working to improve and get back into the range of
15 ensuring that we are well above, well beyond compliance.

16 Q. What kind of work is involved in replacing all of
17 these castings under the shed at the B Battery coke
18 side?

19 A. It's a very significant process. You have to
20 take two extended outages on Battery B and Battery C
21 because you actually have to go in underneath the
22 coke-side shed.

23 You have to work from the quench car tracks and
24 you have to remove a buckstay. You have to remove both
25 the door frames with a crane, very large lifts, very

1 tricky rigging because you've got very limited space to
2 work.

3 You actually have to dress the refractory up
4 behind those door frame castings. We do that typically
5 during the subsequent -- following the removal. And
6 then you have to take another outage, replace the
7 castings, replace the buckstay. You have to weld all
8 that back into place and then you have to replace all
9 the refractory behind the door-frame castings.

10 Typically, to replace two door frames, it takes
11 about three to four weeks.

12 Q. How long has U.S. Steel been working on this
13 project?

14 A. We have been working on it since early 2018.

15 Q. And when do you expect to be completed?

16 A. Anticipate having the work that we want to get
17 done completed by about the middle of 2019.

18 Q. Okay. So it won't be completed in time for U.S.
19 Steel to have to meet this new B Battery coke-side,
20 door-leak standard that can result in hot idling two
21 batteries?

22 A. No.

23 Q. Even when U.S. Steel completes this project, do
24 you expect that you will be able to meet a 10 door-leak
25 per month, B Battery coke-side standard on a regular

1 the coke ovens. You push all of the coke out of the
2 coke ovens and you basically sit and heat -- continue to
3 heat the battery absent any coal and coke production.

4 Q. Are there reasons why, as a coke plant operator,
5 you want to avoid hot idling batteries?

6 A. Yeah. Hot idling does significant thermal damage
7 to the refractory which the battery is constructed of
8 and, you know, we've seen evidence in all instances
9 where we've taken coke batteries to idle hot status of
10 significant thermal damage and that results in
11 significant environmental performance deterioration.

12 Q. Are there certain batteries that you expect would
13 not be able to withstand a hot idle?

14 A. Yes.

15 Q. And what type of batteries would those be?

16 A. Our older three metered batteries, Batteries 1,
17 2, 3. I have significant concern with 15.

18 Q. And so that concern would be similar to the
19 testimony we heard from Mr. Clark just a few minutes
20 ago, that hot idling Batteries 1, 2, and 3 could
21 permanently destroy those batteries?

22 A. Yes.

23 Q. Has U.S. Steel experienced this type of
24 deterioration on batteries with a hot idle process
25 before?

1 basis?

2 A. No. The technology doesn't support that given
3 the metal-to-metal door seal.

4 Q. Have you tried to meet this standard since the
5 enforcement order was issued?

6 A. We have been trying, yes.

7 Q. Have you been able to?

8 A. We've been unsuccessful to this point.

9 Q. Do you have concerns about this standard?

10 A. I have significant concerns about the standard,
11 yes.

12 Q. Why's that?

13 A. Because if I don't meet the standard, I have to
14 idle two coke batteries at Clairton.

15 Q. How many total coke batteries are at Clairton?

16 A. Ten.

17 Q. If you meet the two successive quarters of
18 improvement above the baseline and you have one month
19 where there's 11 coke-side door leaks on B Battery, what
20 is the result under the enforcement order?

21 A. I have to idle the two worst-performing coke
22 batteries at Clairton.

23 Q. Can you tell us what hot idling means in very
24 general terms?

25 A. Yeah. Hot idling is you stop charging coal to

1 A. Yeah, we have. Batteries 13, 14, and 15 were
2 taken to hot idle in 2009 as a result of the significant
3 economic recession that took place during that period of
4 time.

5 When we brought those batteries out of idle hot
6 status, there was a significant deterioration in
7 environmental performance due to the resulting
8 refractory damage.

9 Batteries A and B at our Granite City facility
10 during that same period of time were also taken to an
11 idle hot status, essentially resulted in permanent or
12 irreparable damage to those batteries, and we ended up
13 having to shut those assets down due largely to that
14 damage.

15 Q. Have there been more recent situations where
16 you've taken different steps to avoid having to hot idle
17 batteries?

18 A. Yes. The turndown in the steel industry in 2015
19 was not quite as severe in steel-demand magnitude, but
20 we did idle our Granite City operations. In 2009, we
21 idled Granite City and Great Lakes both. So we took
22 more -- had more assets idled during that period of
23 time.

24 But in 2015, there was another pretty significant
25 downturn in North America steel demand; and at that

1 time, I was asked to put a plan together to idle
2 batteries at Clairton.

3 In lieu of idling batteries at Clairton, we took
4 a different alternative and we actually did something at
5 Clairton in 2015 that had never been done during my
6 span, my career with U.S. Steel.

7 We took two of our battery operations to 36-hour
8 coke instead. We had to do a bunch of design work to
9 effect that and make that happen, but we did everything
10 possible to avoid idling batteries in 2015.

11 Q. And what was the reason for that?

12 A. Because we didn't want to do the significant
13 damage and go through what we had gone through coming
14 out of the 2009 idle hot period.

15 Q. Did you hear testimony that the Department put on
16 earlier in this hearing about another coke plant in
17 Monessen voluntarily hot idling its batteries for a
18 five-year period and then restarting them?

19 A. I did, yes.

20 Q. And are you familiar with that?

21 A. I am.

22 Q. What do you recall happening?

23 A. I recall when they restarted those batteries
24 after that idle hot time period, that they had
25 experienced significant deterioration in the refractory

1 costs of hot idling, and let me back up.

2 Do you consider the enforcement order that is the
3 subject of this appeal to just be a \$1,000,000 penalty?

4 A. No.

5 Q. If this enforcement order results in a complete
6 loss of two batteries, are you able to estimate what
7 kind of monetary impact that would have on U.S. Steel's
8 Clairton plant?

9 A. Yes, it would be substantial. If we were to
10 permanently lose two batteries, I would estimate that
11 that would be \$400,000,000 or possibly more depending on
12 the two batteries that we lost.

13 Q. And where do you come up with those numbers?

14 A. Well, we recently constructed Battery C, so we've
15 got very good construction estimates on what it would
16 take to replace that capacity.

17 Q. And is that how you derived the \$400,000,000
18 estimate?

19 A. Yes.

20 Q. What type of timeframe would it take to replace
21 two batteries?

22 A. Well, including permitting, probably four years.

23 Q. And how does that amount compare to the penalty
24 that is at issue in the enforcement order?

25 A. It's 400 times the penalty.

1 and subsequent significant deterioration in the
2 environmental performance of the facility. And I recall
3 they paid some pretty substantial fines as a result of
4 that.

5 Q. I want to talk a little bit now about jobs at
6 Clairton. What has the Clairton plant been doing over
7 the last few years with respect to hiring?

8 A. We've hired over 300 men and women at Clairton
9 over the last two and a half years.

10 Q. Did you start that process before receiving the
11 enforcement order?

12 A. Yeah, we started that process in 2016.

13 Q. If your plant is required to hot idle two
14 batteries, do you expect that to have an impact on jobs
15 at Clairton?

16 A. Yes.

17 Q. What would you expect to occur?

18 A. I would anticipate that we would probably have to
19 lay off 50 to 60 people.

20 Q. And why do you say that?

21 A. Well, because if you idle coke batteries, you
22 don't need the men and women that operate those coke
23 batteries during the course of the period of time that
24 you are not charging coal and producing coke.

25 Q. I want to talk a little bit about the monetary

1 Q. Would there be additional costs to U.S. Steel if
2 it had to hot idle two batteries?

3 A. Yes.

4 Q. And what would those costs be?

5 A. Well, we would have to replace the coke that we
6 wouldn't be producing from those batteries and,
7 obviously, replace the gaseous fuel and loss on
8 byproduct revenue sales.

9 Q. And is the market today different than the market
10 when U.S. Steel hot idled batteries in the past?

11 A. Significantly different, yeah. U.S. Steel is
12 operating all 10 of our blast furnaces in North America
13 for the first time in some period of time, so we need
14 all the coke.

15 Q. And so would that have a greater impact
16 financially if U.S. Steel had to hot idle two batteries?

17 A. Yeah, it would have a tremendous financial
18 impact. The coke replacement costs would be enormous.

19 Q. And have you calculated those costs?

20 A. Yeah. When the enforcement order was initially
21 issued, we did a very rough approximation just looking
22 at kind of the incremental impact to the facility.

23 But since then, we've looked at — you know, now
24 that we've got all 10 blast furnaces fully operational,
25 the replacement coke costs are tremendous. It would be

1 somewhere in the order of about \$170,000,000, depending
2 again on which coke batteries were taken to idle status.

3 Q. And how does that compare to the penalty?

4 A. That would be 170 times approximately the
5 penalty.

6 MR. DAUSCH: Thank you, sir. That's all I have.

7 HEARING OFFICER SLATER: Mr. Willis?

8 CROSS-EXAMINATION

9 BY MR. WILLIS:

10 Q. Mr. Rhoads, you said that the U.S. Steel Clairton
11 Coke Works is the largest coke facility in America?

12 A. In North America.

13 Q. In North America. Is there a larger one in South
14 America?

15 A. I don't know.

16 Q. Are you part of any groups or associations of
17 coke manufacturers?

18 A. Not internationally, no.

19 Q. You've worked internationally at other facilities
20 owned by U.S. Steel?

21 A. I have, yes.

22 Q. Were you required to be aware of the facilities
23 in those regions, any competitors in those regions?

24 A. In general, yeah.

25 Q. So you were in Croatia for a while?

1 A. The City of Clairton is next to the Coke Works,
2 yeah.

3 Q. About how far?

4 A. The city sits on the hillside adjacent to the
5 Clairton plant.

6 Q. What's the closest residential building that you
7 can think of next to the facility?

8 A. I don't know.

9 Q. You've been to the facility?

10 A. Yeah, but I don't know what's residential versus
11 non-residential. I don't know who resides where.

12 Q. Okay. Where do you source your coal?

13 A. We source our coal predominantly from the
14 Appalachian coal region. So it predominantly comes from
15 the Northern Appalachian region, which is here in
16 Pennsylvania, and some Central Appalachian coal which is
17 in West Virginia, Virginia.

18 Q. Any particular vendors?

19 A. We have multiple vendors.

20 Q. Do you have one that's larger than the other?

21 A. Not really. We source across multiple vendors.

22 We are currently using about 26, 27 different types of
23 coal.

24 Q. Do you have requirements with respect to that
25 coal?

1 A. No.

2 Q. I'm sorry, where were you when you were abroad?

3 A. Serbia.

4 Q. I'm sorry, Serbia. Is that the only coke
5 facility that you are aware of in Eastern Europe?

6 A. There wasn't a coke facility in Serbia.

7 Q. Okay. What was that facility?

8 A. That was United States Steel Serbia. It was an
9 integrated steelmaking operation.

10 Q. Okay. So you went from a coke facility to a
11 steelmaking facility?

12 A. Yes.

13 Q. Okay. I'm sorry, are you an Allegheny County
14 resident?

15 A. No.

16 Q. Where do you live?

17 A. Westmoreland County.

18 Q. So you don't live anywhere near this facility?

19 A. I live about a half hour away.

20 Q. Okay. If there was an exceedance of any of the
21 opacity standards with respect to the Clairton Coke
22 Works, would you be able to witness it from your house?

23 A. No.

24 Q. Okay. Is there a community next to the Coke
25 Works?

1 A. We do, quality specifications.

2 Q. What are those specifications?

3 A. We have specifications for a maximum mash
4 content, maximum sulfur content, maximum moisture
5 content.

6 Q. Why is that? Why do you have those requirements?

7 A. It's mostly for the quality of the coke that we
8 are producing.

9 Q. Does it have anything to do with the fact that
10 you are using it in the steelmaking process?

11 A. Yes.

12 Q. Okay. So this isn't the type of coal that would
13 be used for a power plant; is that fair to say?

14 A. No, metallurgical coal is typically a pretty
15 special range of bituminous coal.

16 Q. It is bituminous and not anthracite?

17 A. That's correct.

18 Q. Okay. And when you put the coal into the ovens
19 in a process, that's called charging; is that right?

20 A. Uh-huh (affirmative.)

21 Q. And you had these doors on either side of the
22 coke ovens and we've been talking about the leaks that
23 come out of these ovens, what's coming out?

24 A. During what portion of the process?

25 Q. During the charging.

1 A. Well, during the charging, a lot of moisture is
2 being driven off. There will be some dust from the
3 charging process, but there will be some raw coke oven
4 gas.

5 Q. Okay. What are the constituent chemicals of raw
6 coke oven gas?

7 A. I don't know all the constituent chemicals.
8 There is benzene, hydrogen methane, toluene, carbon
9 dioxide.

10 Q. Could xylene be a part of that?

11 A. Yes.

12 Q. I'm sorry, what did you get your undergraduate
13 in?

14 A. Chemical engineering.

15 Q. Do you know if benzene is a carcinogen?

16 A. Yes.

17 Q. How about toluene?

18 A. I'm not 100 percent positive.

19 Q. Have you been to the top of any of these coke
20 batteries?

21 A. Yes.

22 Q. Do you wear any protective gear up there?

23 A. When I'm in the regulated areas beyond the pinion
24 walls on the coke batteries, yes, I wear my appropriate
25 personal protective equipment.

1 buildings. They are regulated areas also because
2 there's potential for emissions in those areas. It
3 doesn't mean there's emissions; there's potential for
4 emissions.

5 Q. It's really about the exposure to those
6 emissions?

7 A. The potential for the exposure, yes.

8 Q. Have you ever seen emissions from the top of the
9 coke oven battery?

10 A. Yes.

11 Q. So the potential is real, it's not hypothetical?

12 A. Yes.

13 Q. If you look to what you have as Exhibit 40, page
14 8, is that a photo of the top of the battery at Clairton
15 Coke Works?

16 A. Yes.

17 Q. Is that representative of all the tops of the
18 batteries?

19 A. It's representative of the top of B Battery.

20 Q. Okay. Can you see the shed on Battery B from
21 this photo?

22 A. Yes.

23 Q. Okay. Is it on the left or the right?

24 A. It's on the left.

25 Q. So it's a little bit obscured by the darkness of

1 Q. And you've been in charge of safety at the
2 Clairton Coke Works?

3 A. I'm not specifically responsible for safety, but
4 I have oversight for the entire facility. So yeah, the
5 results are mine.

6 Q. So it's important for you to make sure that
7 anybody that's going to be on those batteries has
8 personal protective equipment on?

9 A. Yes.

10 Q. And would any of that equipment be a respirator?

11 A. Yes.

12 Q. Why would you have a respirator?

13 A. You are required by the OSHA standards governing
14 coke oven operations to wear respiratory protection in
15 regulated areas.

16 Q. And why would that be?

17 A. Because there is potential for emissions from the
18 coke-making operation.

19 Q. I'm sorry. Could you -- what does that mean?

20 A. There is potential for emissions from the coke
21 battery operation.

22 Q. So the potential for an emission from the coke
23 battery operation requires you to have protective gear,
24 specifically a respirator?

25 A. Yeah, very similar to some of our compressor

1 the photo; is that fair?

2 A. Yeah, you can see it. It's on the left.

3 Q. There's a shadow there?

4 A. Yes.

5 Q. In looking at this photo, I don't see any roof
6 over the facility. Is there any roof on this facility
7 over top of the battery?

8 A. No. The photo that you are looking at depicts
9 the topside of B Battery. So you can see the rooftops
10 on both the pusher and the coke side and the lids.

11 Q. And so any emissions that would come from the
12 ovens themselves and during the charging station of the
13 cooking cycle, which could potentially contain coke oven
14 gas, would be emitted into the open air?

15 A. That's correct, yes.

16 Q. For the entire facility, how many pushes would
17 you say there are a day?

18 A. Between 700 and 800.

19 Q. What is the time interval between a push,
20 roughly?

21 A. It varies, depends on which battery.

22 Q. Let's say Battery B.

23 A. Fifteen minutes.

24 Q. So every 15 minutes, there's a push at Battery B?

25 A. Approximately, yes.

1 Q. Even as we sit here now, there's a push every 15
2 minutes?

3 A. Yes.

4 Q. In the middle of the night, every 15 minutes?

5 A. Yes.

6 Q. Twenty-four hours a day, every 15 minutes?

7 A. That's correct.

8 Q. Since 1980 -- when did that battery begin
9 operation?

10 A. 1982.

11 Q. 1982. And you said the facility began work in
12 1901?

13 A. The facility started operation -- Clairton Works
14 started operation in 1901 as an integrated steelmaking
15 plant. The first battery byproduct coke ovens were
16 installed in 1918.

17 Q. Are any of those original batteries still in
18 place?

19 A. No.

20 Q. What is the oldest battery there now?

21 A. 1, 2, and 3.

22 Q. When were they installed?

23 A. They started operation in 1954.

24 Q. Are you familiar with the Carnegie Way Program?

25 A. I am.

1 Q. Could you describe what that is?

2 A. Carnegie Way Program is a cost-improvement
3 initiative. We basically engage with the workforce
4 looking for ideas to improve our process from everything
5 from safety, environmental, to our cost position.

6 Q. Did that result in a 25-percent reduction in
7 staff in April of 2016?

8 A. It depends on what staff you are looking at. At
9 Clairton specifically, no.

10 Q. What's the standard life of a coke oven battery?

11 A. It depends on the maintenance.

12 Q. What's the average life of a coke oven battery?

13 A. Again, it depends on the maintenance that you
14 perform on the battery.

15 Q. Have you ever had an opportunity to shut down a
16 battery at any of the facilities owned by U.S. Steel?

17 A. Unfortunately, I did.

18 Q. Which ones would those have been?

19 A. I participated at the end of Battery Number 2's
20 life in Gary, Indiana.

21 Q. Okay. What about at Clairton Coke Works?

22 A. Never at Clairton, thankfully, no.

23 Q. You mentioned Battery C. Did Battery C replace
24 any batteries at Clairton Coke Works?

25 A. It did.

1 Q. Which batteries did those replace?

2 A. Batteries 7, 8, and 9.

3 Q. How long were those batteries in place?

4 A. They started up in the 1950s, around 1953 or '54.

5 Q. You mentioned something called foul gas. What is
6 that?

7 A. Foul gas is the raw coke oven gas that is formed
8 from the volatile products that come from the coal.

9 Q. Why do you call it foul?

10 A. Because it's a very dirty gas stream, has a lot
11 of heavy hydrocarbon and aromatic hydrocarbons.

12 Q. What is aromatic hydrocarbon?

13 A. Benzene, toluene, xylene.

14 Q. These are the same products that could come out
15 of a door leak?

16 A. It can, yes.

17 Q. You mentioned the CITE Program and you indicated
18 that it was expanded to the batteries?

19 A. At some time, it was expanded to the batteries,
20 yeah. The original CITE Program at Clairton started, as
21 I indicated, in the chemicals and utilities operation.
22 And then it was later -- and I can't specifically say
23 when, but it was expanded to the coke battery coking
24 operation.

25 Q. You mentioned that you had full-time employees

1 working on oftakes to make sure that any leaks are
2 sealed?

3 A. Yes.

4 Q. Notwithstanding those employees and their work,
5 do you still experience violations with respect to
6 Article 21?

7 A. Yes.

8 Q. And I'm sorry, I'm going to go back to the CITE
9 Program. Is that still in operation?

10 A. Yes.

11 Q. And you mentioned that as a part of your plan.
12 Let me back up.

13 As one of the requirements of the enforcement
14 order, U.S. Steel is required to present the Health
15 Department with a plan as to how it was going to reduce
16 emissions; is that correct?

17 A. Yes.

18 Q. And as a part of that plan, you had mentioned the
19 use of the CITE Program for future training; is that
20 correct?

21 A. Yes.

22 Q. Okay. Currently, how often is training given to
23 operators?

24 A. What type of training?

25 Q. CITE training, CITE training.

1 A. We are currently conducting — and it has varied
2 because of the holiday time period, but we've been doing
3 at least one CME training class per week, typically
4 four to seven employees in a class. So they're pretty
5 small classroom sessions.

6 Q. Okay. Is there any certification following that
7 training?

8 A. There's no certification, just documentation that
9 they've completed it.

10 Q. Would you be willing to provide that
11 documentation to Allegheny County Health Department if
12 requested?

13 A. I'd have to review that with my counsel.

14 Q. Okay. When Battery C was first installed, were
15 there any issues with respect to its emissions?

16 A. Yes.

17 Q. What was that problem?

18 A. Charging emissions. The original battery was
19 designed with just four charging lids and didn't have
20 the equalizing U-tube car at the time.

21 Q. And how long did that problem persist?

22 A. I can't say. I know that we corrected it during
23 the period of time that I had arrived at Clairton. It
24 would have been a few years.

25 Q. So a few years, you had a problem with a brand-

1 new battery in terms of its emission profile; is that
2 correct? Is that fair?

3 A. Yes.

4 Q. I'm sorry, is that a "yes"?

5 A. Uh-huh (affirmative.)

6 Q. If you'd flip to number -- Exhibit 52, I think we
7 were here before. You indicated that you had some
8 involvement with Exhibit 52, that being the consent
9 order of May 7, 2018?

10 A. Yes.

11 Q. Were you involved in any meetings with ACHD over
12 this consent order?

13 A. No, I signed the document.

14 Q. So you weren't a part of the negotiations with
15 respect to this?

16 A. I signed the document.

17 Q. That was your only involvement?

18 A. I reviewed it and I signed it.

19 Q. Okay. Do you know why the standards with respect
20 to Clairton Coke Works are more stringent?

21 A. I don't have any basis in why.

22 Q. Are you aware that Allegheny County is currently
23 in non-attainment for SO₂ and PM_{2.5}?

24 A. I am.

25 Q. Are you aware that Clairton Coke Works has some

1 contributing factors with respect to those exceedances?

2 A. Yes.

3 Q. Do you ever negotiate more stringent regulations
4 with ACHD?

5 A. No.

6 Q. Not you personally?

7 A. Not me personally.

8 Q. Are you aware of anybody at U.S. Steel who would
9 do that?

10 A. Well, the people that would negotiate with the
11 County Health Department would be the environmental
12 affairs and environmental group at the plant.

13 Q. Are you aware of any of that process taking
14 place? Are you aware of any process taking place in
15 terms of negotiation for more stringent regulations with
16 ACHD?

17 A. I'm aware that there's a proposal for additional
18 regulations.

19 Q. And you're aware that U.S. Steel is a stakeholder
20 participating in that conversation?

21 A. Yes.

22 Q. Okay. You mentioned these repairs and projects
23 that have been done to rehabilitate the batteries at
24 U.S. Steel. I think you mentioned something about
25 \$30,000,000; is that correct?

1 A. I'm not sure which project specifically you are
2 speaking to.

3 Q. Well, neither do I. Could you explain what
4 projects have taken place at U.S. Steel in terms of
5 capital expenditures?

6 A. Since when?

7 Q. Since 2015.

8 A. Well, since 2015 — so by virtue of that, you are
9 excluding the two quench towers. But since 2015, we
10 have undertaken significant end-flue repairs on
11 Batteries 1, 2, and 3.

12 We've improved — significantly increased the
13 maintenance that we do on all of our other coke
14 batteries. In addition to that, we've begun doing
15 through-wall repairs on Batteries 19 and 20. We are
16 currently working on 19.

17 In addition to that, we've made some significant
18 investments and improvements in our coke oven gas
19 desulfurization process. We've changed column internals
20 on the vacuum carbonate units, both vacuum carbonate
21 units in the desolve plant and we are going through a
22 process right now of re-machining all the top switching
23 valves on our cryogenic gas separation facility.
24 Cryogenic gas separation facility is the best technology
25 in the world for cleaning coke oven gas.

1 So the end-flue replacements over the course of
2 the past couple years since 2015, we've spent
3 approximately \$30,000,000.

4 The VOU upgrades were about \$1,000,000, and the
5 switching valve replacements are -- when completed, it
6 will be in the neighborhood of \$6,000,000.

7 Q. With respect to the projects that have been
8 completed, do you have any receipts for any of that
9 work?

10 A. Not with me.

11 Q. Do you have them at the facility?

12 A. Uh-huh (affirmative.)

13 Q. Have you ever provided that information to
14 Allegheny County?

15 A. Not to my knowledge, no.

16 Q. You mentioned an H2S project equaling
17 approximately \$1,000,000?

18 A. Yes.

19 Q. Can you explain that project, please?

20 A. What we did was we took the trays out of the
21 vacuum carbonate unit stripper and we replaced it with a
22 random packing material that improves the contact
23 surface in the vacuum carbonate unit stripper and
24 significantly improves the efficiency of the carbonate
25 solution stripping in the vacuum carbonate unit in the

1 A. A couple.

2 Q. Two?

3 A. Uh-huh (affirmative.)

4 Q. Were these projects that you mentioned voluntary?

5 A. That project is something that we came up with as
6 an energy savings project. We anticipated that we were
7 going to have significant turndown on the steam
8 consumption on the VOU. A very positive surprise was in
9 addition to the steam turndown, we had a significant
10 reduction in hydrogen sulfide.

11 Q. Okay. Do these projects at all help in terms of
12 correcting prior violations?

13 A. Well, that project in particular was part of the
14 sulfur dioxide state implementation plan.

15 Q. Okay. And that was a part of a -- that was
16 designed in part to help U.S. Steel meet the NAAQS. Do
17 you know what the NAAQS is?

18 A. Yeah, the National Ambient Air Quality Standard.

19 Q. And would that help you meet NAAQS?

20 A. It would help Allegheny County achieve
21 attainment.

22 Q. Oh, thank you, proper correction.

23 Would you have done these projects without
24 Allegheny County's regulatory authority to --

25 A. Well, that particular project, absolutely. That

1 point of the process where we remove the hydrogen
2 sulfide from the coke oven gas.

3 Q. Did you have an outside vendor do that project
4 for you?

5 A. I think it was a combination project. I think we
6 may have had some outside vendor work, but we also did
7 some of that work with the plant forces.

8 Q. I'm sorry, go ahead.

9 A. With -- I just said some of the work was done
10 with the plant forces also.

11 Q. Okay. I didn't mean to cut you off. So you did
12 some of the engineering in-house?

13 A. We did.

14 Q. Do you typically do engineering in-house for
15 projects like this?

16 A. On projects like that, we do do some of that
17 engineering in-house. I've got an exceptionally good
18 processing engineer that does things like that.

19 Q. You have a process engineer?

20 A. Uh-huh (affirmative.)

21 Q. How many process engineers do you have?

22 A. Well, one in particular in chemicals and
23 utilities that does that type of work.

24 Q. For facility-wide, how many process engineers do
25 you have?

1 was underway some time prior to and during the
2 negotiation of the SO2 SIP. We were doing that as an
3 energy savings project.

4 Q. Okay. Now, you have operators that are all over
5 this facility. You have lid men as you indicated,
6 correct?

7 A. Yes.

8 Q. You have a larry car operator?

9 A. Yes.

10 Q. You have pusher mechanics, people that push the
11 coal, coke?

12 A. It's called a pusher machine operator, yes.

13 Q. Okay. Is there somebody on the coke side to open
14 up that door?

15 A. The door machine operator, yes.

16 Q. Okay. Is it possible for any of these
17 individuals to make mistakes in the course of their
18 work?

19 A. Yes.

20 Q. And when they make those mistakes, do you
21 reprimand them?

22 A. Yes.

23 Q. Do you have a record of reprimanding?

24 A. Yes.

25 Q. Okay. Have you done any quality assurance that

1 determines whether or not those reprimands actually
2 resulted in positive changes with respect to the coke
3 operations?

4 A. Well, it's kind of a qualitative concept. I've
5 done quality assurance checks on the discipline process.
6 Actually, just last week, I looked at the last three
7 months of discipline, maybe it was two months of
8 discipline history, relative to performance issues.

9 Q. Is there -- have you done any review or study as
10 to any correlation between that and environment
11 improvements?

12 A. No. Our preference is to teach them before we
13 have to discipline them so we don't have to discipline
14 them.

15 Q. Isn't that the purpose of the CITE training?

16 A. Yes.

17 Q. All right. Now, you claim that there is this
18 really high compliance that you had a few years ago with
19 respect to the CEMS and you started spending some -- a
20 lot of money to fix the through walls, am I correct, of
21 the batteries?

22 A. I'm not sure to what you're referencing.

23 Q. Do you recall the 2016 Consent Judgment?

24 A. Yes.

25 Q. And what was the purpose of that?

1 A. The purpose of that was to improve the overall
2 stack compliance at the facility.

3 Q. And as you showed in your chart, the stack is one
4 of probably seven different emission points or emission
5 categories?

6 A. Yeah, there's a combustion stack on each of the
7 10 coke batteries.

8 Q. Okay. But in addition to the combustion stack,
9 there are fugitive emissions that you would agree come
10 from lids; is that correct?

11 A. Yes.

12 Q. The door areas?

13 A. Yes.

14 Q. From soaking, there's a potential for emissions?

15 A. Yes.

16 Q. Pushing?

17 A. Yes.

18 Q. And none of those are captured through the
19 combustion stack, those emissions?

20 A. No.

21 Q. Okay. Now, you mentioned that it would be
22 challenging to comply with the Battery B door standard,
23 and in particular, you were talking about the stack
24 performance and the potential for stack degradation,
25 stack performance degradation; do you remember that?

1 A. No.

2 Q. You just testified to that. Would you anticipate
3 there to be any stack performance degradation?

4 A. From what?

5 Q. From what?

6 A. Uh-huh (affirmative.)

7 Q. You mean "with respect to what." There are CEMS
8 on those stacks; is that correct?

9 A. There are --

10 Q. On the combustion stacks?

11 A. There are continuous opacity monitors on the
12 combustion stacks, yes.

13 Q. And thus far, those monitors have been performing
14 very well in terms of your compliance?

15 A. Yes.

16 Q. Okay. Do you have any reason to believe that
17 that compliance rate would go down?

18 A. No.

19 Q. So if that compliance rate remains steady and
20 there's improvement with respect to the actual visible
21 emissions inspections, you should be okay in terms of
22 compliance with that standard?

23 A. Assuming that the compliance rate on the stack
24 remains at the 99.384 percent compliance, significantly
25 above the 98.5 percent requirement in the 2016 Consent

1 Judgment and there is an improvement in the fugitive
2 emissions, yes.

3 Q. Okay. And you've already indicated there is no
4 reason to believe there would be a degradation with
5 respect to the CEMS and their -- and the compliance with
6 respect to the CEMS?

7 A. As long as we continue to operate the plant in a
8 steady-state condition, that's correct.

9 Q. I recognize that this is a pretty complex
10 operation that you have out there. You have 10
11 batteries working full time, 24 hours a day, seven days
12 a week, 365; is that correct?

13 A. Could you restate the question?

14 Q. Three hundred sixty-five days a year, that all 10
15 batteries are in operation?

16 A. Yes.

17 Q. And that has been that --

18 A. Less outage time.

19 Q. I'm sorry, minus what?

20 A. Less outage time. We take routine maintenance
21 outages.

22 Q. Okay. But with that in mind, there has never
23 been a situation at Clairton Coke Works where a battery
24 has basically exploded. Do you recall any occasion in
25 which a battery has broken down to the point of being

1 unrecoverable?

2 A. Not during the course of my career.

3 Q. Do you know of an occasion before that?

4 A. I don't have any firsthand knowledge, no.

5 Q. Okay. And U.S. Steel employees have complete

6 control over that process, from the charging until the

7 quenching; is that correct?

8 A. Yes.

9 Q. You determine the coking time?

10 A. We do.

11 Q. And you determine which ovens to push?

12 A. Yes.

13 Q. And when to push it?

14 A. Yes.

15 Q. And when to charge?

16 A. Yes.

17 Q. And I think you were here earlier this week when

18 there was testimony from Keramida as to their

19 inspections, correct?

20 A. I was here, yes.

21 Q. Is it true that U.S. Steel gets the data of any

22 opacity readings that are picked up by inspectors from

23 Keramida?

24 A. We do.

25 Q. That same day?

1 A. Typically. Typically, there's a little bit of a

2 delay, but we typically get it pretty quickly.

3 Q. Pretty quickly. So let's say you get a report

4 from Keramida on a Tuesday that there is a door leak on

5 the coke side of Battery B or -- let's say four leaks,

6 for the sake of argument, on Battery B. Is there

7 anything you could do in the subsequent days to reduce

8 the number of door leaks?

9 A. Well, we just continue following the existing

10 operating practices that we have in place to adjust and

11 seal doors.

12 Q. So you could actually continue to seal the door

13 to ensure that there isn't another violation after that?

14 A. That's what we currently do, yes.

15 Q. Okay. And you have done this in the past,

16 correct? You've managed to have fewer than 10 door

17 leaks in any given month?

18 A. Yes.

19 Q. And you have in the past managed to do this for a

20 period of six months?

21 A. Yes.

22 Q. And there was no enforcement order compelling you

23 to do that for those six months?

24 A. No. We always strive to be beyond compliance.

25 Q. That's good. I mean, that's what you want, you

1 want to be above compliance, you want to do the best you

2 can in terms of air quality; is that correct?

3 A. Yes.

4 Q. Okay. I'm sorry, did you say you had a degree

5 beyond your undergraduate degree?

6 A. I have a Master's in business.

7 Q. Okay. Do you apply that Master's degree in your

8 current occupation with respect to the Clairton Coke

9 Works?

10 A. Yes.

11 Q. Okay. How so?

12 A. I'm responsible for the day-to-day, bottom-line

13 financial results of the facility.

14 Q. Okay. Well, U.S. Steel is a public corporation;

15 is that correct?

16 A. Yes.

17 Q. You have a board of directors; is that correct?

18 A. Yes.

19 Q. And you have shareholders?

20 A. Yes.

21 Q. Would you agree that it is your fiduciary duty to

22 have profits for those shareholders?

23 A. Yes.

24 Q. Would you agree that in the second quarter of

25 2018, that the profits for U.S. Steel were \$218,000,000,

1 approximately?

2 A. I don't have the numbers right here in front of

3 me.

4 Q. Would it be approximately that?

5 A. I don't have the numbers right here in front of

6 me. I don't want to testify to that.

7 Q. I'm not going to enter this into evidence, but I

8 do want to at least give you something to put in front

9 of you.

10 A. Okay.

11 Q. Would you agree that U.S. Steel had a profit of

12 \$214,000,000 in the second quarter of this year?

13 A. Yes.

14 Q. Is that fair?

15 A. Uh-huh (affirmative.)

16 Q. Would you also agree that environmental

17 compliance is a cost for any company?

18 A. (No response.)

19 Q. It's a cost setter; wouldn't you agree?

20 A. Well, there are costs associated with it, yes.

21 Q. And in terms of a return on investment, do you

22 know what that would be for environmental compliance?

23 A. I have no idea.

24 Q. Okay. You said that you are familiar with other

25 coke facilities in the United States, correct?

1 A. Yes.

2 Q. You're a part of an organization, at least within
3 the United States, of industry leaders in the coke
4 industry?

5 A. Yes.

6 Q. And you said you are familiar with the Monessen
7 facility?

8 A. Generally familiar with it. I've never actually
9 been to the Monessen facility.

10 Q. Okay. You are aware that Monessen had been on
11 hot idle for five years?

12 A. Yes.

13 Q. And you are aware that the DEP issued a penalty
14 of \$1.8 million against them?

15 A. I was aware that they had been issued a
16 substantial penalty, yes.

17 Q. Did you know if it was greater than your penalty?

18 A. I just knew that they had been issued a
19 substantial penalty.

20 Q. Would it surprise you if you heard that it was
21 \$1.8 million?

22 A. I thought it was somewhere in the 1 to 1.5 range.
23 But, you know, as I said, I didn't know the specific
24 number.

25 Q. That's fair. Do you know the size of Monessen?

1 A. It's a two-battery operation, two small
2 batteries.

3 Q. Two small batteries?

4 A. Uh-huh (affirmative.)

5 Q. Do you know how many ovens per battery?

6 A. I'm not sure.

7 Q. You're not familiar with it that much?

8 A. No.

9 Q. Okay. And in this matter of scale, you would
10 agree that Clairton Coke Works is substantially bigger
11 than Monessen?

12 A. Yes.

13 Q. Okay. Have you ever had to replace the battery
14 doors -- the doors on a coke oven battery of Battery B?

15 A. Myself personally?

16 Q. You, as in U.S. Steel.

17 A. Yes, they were -- they are replaced on a periodic
18 basis as they need to be maintained.

19 Q. What's the period?

20 A. It depends on the door service and the door
21 condition. We have an internal shop in the Clairton
22 facility where we do all of our own door rebuilds.

23 Q. So you rebuild the doors?

24 A. Yeah.

25 Q. You don't buy new doors?

1 A. On occasion, we will buy components to build the
2 door. But, you know, we basically do component rebuilds
3 on the doors.

4 Q. How much does that cost to do a rebuild of a
5 door?

6 A. It varies. It depends on the damage and what has
7 to be done to the door. I don't know the specific,
8 exact cost.

9 Q. Well, estimate, if you could.

10 A. It can probably range -- and it depends on the
11 size of the door -- it can probably range from 5,000 to
12 10,000 or \$15,000 per door.

13 Q. \$15,000 per door. How many doors on Battery B?

14 A. One hundred fifty.

15 MR. WILLIS: You guys don't have that calculator?

16 MR. DAUSCH: Huh-uh (negative.)

17 BY MR. WILLIS:

18 Q. If we were to take 150 times 15,00 -- I don't
19 know if you can do the math in your head, but I may have
20 my assistant here -- that would be \$2.25 million; is
21 that correct? Does that seem accurate?

22 A. Yes.

23 Q. To do a complete door refurbishing for every
24 door?

25 A. You did the math.

1 Q. Okay. Do you accept that math?

2 A. (No response.)

3 Q. Yes or no?

4 A. I didn't do the math, so no.

5 Q. I'm saying, do you accept the math? You saw me
6 do it. Do you accept that as a fair number?

7 A. What did you multiply?

8 Q. 150 times 15,000.

9 HEARING OFFICER SLATER: So it would be 150 doors
10 times \$15,000 per door, is that the --

11 MR. WILLIS: Correct.

12 BY MR. WILLIS:

13 Q. Now, you said if you had unlimited resources,
14 there's nothing you could do in terms of reducing these
15 door leaks; is that accurate?

16 A. Yes, in the time period allotted.

17 Q. You couldn't come up with \$2 million?

18 A. You couldn't refurbish those doors in that time
19 period.

20 Q. Why not?

21 A. Because you can't take all the doors off the
22 battery and refurbish them all at once. You've got to
23 have doors on the battery to operate the battery.

24 Q. Could you do it in a staggered pace?

25 A. Not in that time period.

1 Q. In what time period?

2 A. Well, it takes a significant volume of time to

3 rebuild a door.

4 Q. How much time does it take?

5 A. I can't speak to that specifically. I've never

6 had direct-line responsibility for the door repair shop,

7 but it takes weeks.

8 Q. Weeks?

9 A. Yes.

10 Q. You're familiar with the ACHD inspectors and the

11 Keramida inspectors and the Veolia inspectors that are

12 on your property at any given point in time, correct?

13 A. Yes.

14 Q. Does U.S. Steel allow them to take photos of the

15 facility?

16 A. To my knowledge, I don't know that we do.

17 Q. Are they allowed to take videos?

18 A. I don't know.

19 Q. You mentioned that -- opposing counsel indicated

20 that you had no participation in the enforcement order,

21 is that correct, that's at issue today? Did you have

22 any participation in that order?

23 A. No, we received the enforcement order.

24 Q. Do you anticipate ever having participation in an

25 enforcement order against you?

1 A. I don't know.

2 Q. Well --

3 A. We are only one side to the party.

4 Q. Correct. And you understand that the Allegheny

5 County Health Department is a regulatory agency; is that

6 correct?

7 A. Yes.

8 Q. And outside of a consent order -- you understand

9 what a consent order is, correct?

10 A. In general, yes.

11 Q. Well, you said you signed one for the May 7, 2018

12 Consent Order, you signed that order?

13 A. Yes.

14 Q. And you reviewed that order?

15 A. Yes.

16 Q. And you participated in that order to the extent

17 that you reviewed and signed it?

18 A. Yes, and U.S. Steel participated in it.

19 Q. Okay. But that's a consent order, it's in the

20 title, right, that you consented to the order?

21 A. Yes.

22 Q. But this is an enforcement order, correct?

23 A. Uh-huh (affirmative.)

24 Q. So you wouldn't anticipate participating in the

25 enforcement order against your own company?

1 A. I don't know. I suppose not.

2 Q. If you did, you wouldn't have these conditions

3 placed in the order, is that fair? The Battery B limit,

4 you wouldn't have that put in that order?

5 A. No.

6 Q. I'm going to turn to Exhibit 17. We're going to

7 go to page 9 -- sorry 16, not page 9. Are you familiar

8 with this document?

9 A. In general, yes.

10 Q. Okay. I'm going to draw your attention to the

11 top table. Can you read what that table is at the top?

12 A. Yeah, that's the hydrogen sulfide performance

13 from our coke oven gas desulfurization plant.

14 Q. I'm sorry, you're looking at the wrong document.

15 MR. DAUSCH: What number did you say?

16 MR. WILLIS: 16.

17 HEARING OFFICER SLATER: Oh, I think you're at

18 Tab 17.

19 MR. WILLIS: Sorry about that.

20 MR. RHOADS: You said page 9?

21 MR. WILLIS: Yes, sir.

22 MR. DAUSCH: Do you want to ask if he is familiar

23 with it again since he had the wrong --

24 MR. WILLIS: Yes, yeah.

25 BY MR. WILLIS:

1 Q. Please, if you've seen it.

2 A. Which chart are we looking at?

3 Q. Well, look to the first page just to make sure

4 you're familiar with that document. That was my first

5 question, are you familiar with that document?

6 A. I don't know that I've ever seen the document --

7 Q. Okay.

8 A. -- before.

9 Q. That's fair. And on page 9, if you look at 2019

10 in that top table, that top chart, there's a line for

11 "liberty." Do you see that line?

12 MR. DAUSCH: I'm going to object to questions

13 about a document he's never seen before. All he can do

14 is read what is on the document.

15 MR. WILLIS: That's all I want him to do.

16 HEARING OFFICER SLATER: Yeah, he can testify to

17 what he sees on the document even though he is not -- he

18 has not personally seen this document before.

19 MR. RHOADS: Yeah, I see the point on there

20 marked "liberty."

21 BY MR. WILLIS:

22 Q. Okay. And 2009, do you see where it says --

23 where that line intersects with 15?

24 A. Yes.

25 Q. Okay. I think you indicated that in 2009, there

1 was some hot idling with respect to what was three or
2 four batteries?

3 A. I think in 2009, we took 13, 14, and 15 and B to
4 hot idle for some period of time.

5 Q. Okay. And you said that there was significant
6 problems after that; is that correct?

7 A. Yes.

8 Q. Okay. So if I'm correct, -- and correct me if
9 I'm wrong -- it looks as though that line trends
10 downward and then pops up a little bit on 2010, it goes
11 above 15. Is that micrograms per cubic meter?

12 A. I don't believe it goes above 15 in 2010, no.
13 All the points on the graph are below 15 in 2010.

14 Q. I'm sorry, you're looking at the top blue line?

15 A. Yes. I'm sorry, you're -- I was in 2011. You
16 are correct.

17 Q. Okay. Sorry, I was --

18 A. That goes down to 15.

19 Q. I apologize. I thought I was losing it there.

20 Then it descends considerably in 2011; is that
21 fair?

22 A. That's correct.

23 Q. It goes below the 15 in 2011. Now, 2009, you
24 have four batteries offline basically for six months; is
25 that fair?

1 many of them involve environmental compliance; is that
2 fair?

3 A. Yes.

4 Q. You have to be concerned about your workforce,
5 correct?

6 A. Correct.

7 Q. You had to have the proper number of people to do
8 the job to get your production numbers where you want
9 them to be; isn't that correct?

10 A. That's correct.

11 Q. And you have to balance all of these things to
12 allow this operation to be maximized, to maximize your
13 output and your operation; is that fair?

14 A. Yes.

15 Q. In that balancing, which is more important to
16 you: jobs or environmental performance?

17 A. Environmental performance.

18 Q. Okay. You indicated that there is cleaned air
19 that goes through the bag house; is that fair?

20 A. Well, the air that contains the pollutants enters
21 the bag house, goes through the fabric filters on the
22 bag cages. By virtue of going through those fabric
23 filters, it cleans the pollutants, some of the
24 pollutants, from the air and then the air is discharged
25 from the stack.

1 A. I'm not sure what the durations of time they were
2 idle. I was not at Clairton in 2009.

3 Q. Oh, I'm sorry. When did you return to Clairton?

4 A. 2015.

5 Q. Okay. You mentioned the impact of the
6 enforcement order in terms of jobs. You suggested that
7 if you do not comply, there could be the loss of many
8 jobs; is that correct?

9 A. Yes.

10 Q. If you comply, will those jobs be lost?

11 A. If we comply with the enforcement order?

12 Q. Yes, sir.

13 A. Then we would not have to hot idle two batteries.

14 Q. And that would mean you would not have to lose
15 those employees?

16 A. That's correct.

17 Q. And as a part of your plan, you indicated that
18 you were hiring more people to implement that plan?

19 A. Yes.

20 Q. So as a matter of course, the enforcement order
21 has caused you to employ more people?

22 A. We are employing more people in an attempt to
23 comply with the enforcement order, yes.

24 Q. Okay. There are many considerations in your
25 position as the manager of the Clairton Coke Works, and

1 Q. It doesn't capture all the pollutant, though?

2 A. No.

3 Q. It doesn't capture gaseous pollutants?

4 A. That's correct.

5 Q. And those gaseous pollutants could involve SO₂;
6 is that correct?

7 A. It could be, yes.

8 Q. Could it involve benzene?

9 A. It could be, yes.

10 Q. Xylene?

11 A. It could be, yes.

12 Q. Toluene?

13 A. It could be there, yes.

14 Q. And the shed on Battery B, does that control for
15 any of those gaseous pollutants?

16 A. The shed is just a capture device. The bag house
17 is what actually removes the particulate matter from the
18 emissions.

19 Q. The shed captures particulate matter?

20 A. Yes.

21 Q. It doesn't capture gaseous emissions?

22 A. Well, it captures all of the emissions.

23 Q. Including gaseous emissions?

24 A. Yes.

25 Q. All of them?

1 A. Not all of them, no.

2 Q. And why not?

3 A. Well, there can be leakage from the shed.

4 Q. There are two open sides on the shed; is that
5 correct?

6 A. Yes.

7 Q. Those gases could exit the shed through those
8 ports?

9 A. They can, yes.

10 Q. And you have two doors at the top of that shed.
11 Where does that go?

12 A. Those are access doors to access the coke-side
13 flushing liquor returns coming off the coke battery.

14 Q. And you have operators that go through those
15 access doors?

16 A. Operators and maintenance personnel, yes.

17 Q. Is there somebody watching those folks do their
18 jobs?

19 A. Not all the time, no.

20 Q. Is it possible for them to open those doors and
21 leave them open?

22 A. Yes.

23 Q. Would that allow for gaseous emissions to go
24 through those doors?

25 A. If the doors were left open, yes.

1 Q. The top of the shed, is that attached to the top
2 of the battery? And let me clarify that to make it more
3 specific.

4 Is there a gap or seam between the top of the
5 battery and the top of the shed?

6 A. There is, yes. There has to be to allow for
7 expansion and contraction and independent movement.

8 Q. Okay. Is that an opportunity for gaseous
9 emissions to escape?

10 A. Yes.

11 Q. Okay. I'm going to go to ACHD 14. Are you
12 familiar with this document? Have you seen this before?

13 A. No.

14 Q. Have you had a chance to review it?

15 A. Yes.

16 Q. If you look at the Q1-2013, it says there were
17 seven violations?

18 MR. DAUSCH: I have the same objection as to
19 foundation for a document he's never seen before.

20 MR. WILLIS: He's looking at it now. I'm asking
21 him to read the chart.

22 HEARING OFFICER SLATER: Overruled, Mr. Dausch.

23 MR. RHOADS: Yes, there were seven violations in
24 Q1-2013.

25 BY MR. WILLIS:

1 Q. Now, let me ask you: are you -- do you ever get
2 an opportunity to review what used to be called Notices
3 of Violation from ACHD?

4 A. Occasionally, yes.

5 Q. Occasionally, okay. And if you look at Q3-2017,
6 is it fair to say that reflects that there were 223
7 violations noted?

8 A. Yes.

9 Q. Okay. And that's after the consent judgment; is
10 that correct?

11 A. Yes.

12 Q. Would you agree that there is an increase in the
13 number of violations on this sheet from 7 to 223? Is
14 that what that reflects?

15 A. Yes.

16 Q. And does that also reflect that increase from a
17 period of 2013 to 2017?

18 A. Yes.

19 Q. Why is there a shed on Battery B?

20 A. The shed was part of the original design

21 installation on Battery B for pushing emission controls.

22 Q. There's no shed on Battery C?

23 A. No.

24 Q. And why is there no shed on Battery C?

25 A. Because there's a different pushing emission

1 control technology on Battery C.

2 Q. And you believe that is a better control
3 technology on Battery C?

4 A. No. Actually, the shed is probably a better
5 overall technology for pushing emission controls just
6 because of the full containment of the entire travel,
7 and I'll use as an example the travel performance on
8 Battery B, which is 100 percent.

9 Q. But you didn't apply that to Battery C?

10 A. No.

11 Q. But you said Battery C was your best performing
12 battery?

13 A. It's the newest. It's the best technology. It's
14 the best performing overall from an emissions
15 standpoint, yes.

16 Q. So there are fewer leaks, you would agree, on
17 Battery C as opposed to Battery B?

18 A. Relative to what?

19 Q. Battery B; Battery C to Battery B.

20 A. I'm not sure what your question was.

21 Q. Fewer leaks, fewer door leaks on the coke side of
22 Battery C. Are there fewer leaks there as opposed to
23 the coke side of Battery B?

24 A. In general, yes, because the technology on
25 Battery C is different. You have individual oven

1 pressure control technology on Battery C.

2 Q. Has anybody ever investigated the opportunity to
3 apply such technology to Battery B?

4 A. We have not, no.

5 Q. On the coke side of Battery B, you're aware that
6 there's a 25-foot minimum distance for doing
7 inspections?

8 A. (No response.)

9 Q. I'll back up. I'll back up.

10 You were identifying a photo that showed the face
11 of the coke side of a battery?

12 A. It was not the coke side in the photo. It was
13 the pusher side.

14 Q. It was the pusher side, okay. And there was a
15 bench with an individual on the bench?

16 A. Yes.

17 Q. And that individual was closer than 25 feet away
18 from the door?

19 A. The individual on the bench was closer than 25
20 feet away from the door, yes.

21 Q. And you identified a white demarcation at the
22 foot of the photo that you approximated to be about 25
23 feet?

24 A. It's greater than 25 feet. I don't know what the
25 exact distance is.

1 of the door, so you are physically walking closer.

2 But it's also in place, I believe, to account for
3 the fact that the door leakage is captured by the
4 emission control shed.

5 Q. And that standard involves a deduction of the
6 actual door leaks; is that fair?

7 A. Yes.

8 Q. Do you know how many deductions there are?

9 A. It's a percentage of the total number of doors
10 that are read. So if all 150 doors are in service,
11 meaning all 75 coke ovens are in operation, it's 4.5.

12 Q. 4.5 doors?

13 A. Uh-huh (affirmative.)

14 Q. Are deducted?

15 A. Yes.

16 Q. Per day?

17 A. Per observation.

18 Q. Per observation, okay. And so if you saw five
19 pushes and you saw -- or you saw five leaks, I'm sorry,
20 not five pushes, but you saw five leaks, would that
21 result in five actual leaks, door leaks, under Allegheny
22 County's enforcement order?

23 A. No. The calculation would be five minus 4.5,
24 assuming that all 75 ovens weren't in service, or it
25 would result in a 0.5.

1 Q. Okay. And you indicated you see more emissions
2 if you are further than 25 feet away?

3 A. Could you restate state the question, please?

4 Q. You indicated that you would see more emissions
5 from the door if you were 25 feet away, more than 25
6 feet away?

7 A. No, I don't believe that's what I indicated.

8 Q. Okay. So you believe if you were closer to the
9 door, you would see more emissions?

10 A. Yes.

11 Q. Okay. Currently, you have Method 303 inspectors
12 that are closer to the door than 25 feet away?

13 A. Where?

14 Q. On the coke side.

15 A. Of what?

16 Q. Of Battery B.

17 A. Yes, they -- the inspectors on Battery B have to
18 walk on the bench to inspect the door on the coke side.

19 Q. Are you aware of the coke-side yard equivalency?

20 A. Yes.

21 Q. Do you know why that's in place?

22 A. It's in place -- I believe it's a two-part
23 reason. Because on Battery B, or any battery that's
24 equipped with a coke-side shed, you physically can't
25 walk the required distance to read during the traverse

1 Q. So in actuality, it's not literally five leaks,
2 it's not literally 10 leaks in any given month?

3 A. It's 10 leaks yard equivalent.

4 Q. Which takes into consideration a deduction of
5 four leaks per day?

6 A. Yes.

7 Q. 4.5 leaks per day; is that correct?

8 A. Per observation, yes.

9 Q. Per observation. I'm sorry, I want to loop back
10 to that plan that you gave the county in terms of your
11 intended compliance. You did that in good faith, right?

12 A. To what plan are you referring?

13 Q. The plan that was required under the enforcement
14 order.

15 A. Yes.

16 Q. And you gave some considerable thought as to what
17 you could do to come into compliance?

18 A. Yes.

19 Q. And you anticipated that you would do that in
20 hopes of complying?

21 A. Yes.

22 Q. You didn't set it up in such a way that you
23 weren't going to comply with it and allow these
24 batteries to go into hot idle?

25 A. No.

1 Q. And when you implement that plan, it is the
2 intent to implement it with the hope that you would
3 comply with that 10-leak standard?

4 A. We were going to try very diligently to comply
5 with that standard, yes. But the concern that we have
6 is with the existing technology, and it's the industry
7 technology, that that standard cannot be met on an
8 ongoing, continuous basis.

9 Q. Even though you've done it on an ongoing,
10 continuous basis in the past?

11 A. We've never done it on an ongoing, continuous
12 basis.

13 Q. You've done it for six months?

14 A. That's not an ongoing, continuous basis.

15 Q. I don't think that the order required an ongoing,
16 continuous basis. It was for six months; is that fair?

17 A. Yes.

18 Q. Okay. And you said given the current technology
19 -- how many engineers do you have out there again at
20 Clairton?

21 A. I have two individuals that serve as process
22 engineers.

23 Q. And these individuals are tasked with
24 understanding from tip to tail how the process works,
25 the coke-making process at that facility?

1 A. No. The individual that I was actually speaking
2 to is assigned to the chemicals and utilities division
3 as the process engineer. So he doesn't do a whole lot
4 with the coke-making operation.

5 Q. Do you have a process engineer that would handle
6 the coke-making process?

7 A. I have a process engineer that works in the
8 heating and patching area. He is responsible for
9 analyzing data and basically prioritizing refracturing
10 maintenance.

11 Q. Now, this facility is the largest coke facility
12 in North America, and U.S. Steel is a company who made
13 profits of \$214,000,000 in the second quarter.

14 Is there any prohibition that you can think of
15 that would prevent you from finding enough engineers
16 with enough qualifications to get you through the
17 compliance of this enforcement order?

18 A. I think process experience is probably a greater
19 deterrent than my ability to hire additional staff.

20 Q. How so?

21 A. You have to have a significant level of expertise
22 to offer solutions. As an example, I have 25 years of
23 experience in the steel industry, 20 years of experience
24 in the coke-making industry. I have a chemical
25 engineering degree. But my skill set wouldn't have

1 allowed me to design the packing that I referenced.

2 It's a very specialized skill set.

3 Q. Is it a skill set that could be learned?

4 A. Yes.

5 MR. WILLIS: I have no more questions.

6 REDIRECT EXAMINATION

7 BY MR. DAUSCH:

8 Q. Mr. Rhoads, you were asked about the different
9 hazardous air pollutants that can be emitted from
10 operating coke batteries; do you recall that testimony?

11 A. Repeat that, please.

12 Q. Mr. Willis had asked you about different
13 hazardous air pollutants that are emitted from coke
14 batteries.

15 A. Yes.

16 Q. And you mentioned a few of them by name, coke
17 oven gas, benzene, toluene; do you recall that
18 testimony?

19 A. Yes.

20 Q. And is the Clairton plant allowed to have
21 unlimited emissions of these hazardous air pollutants
22 into the air?

23 A. No.

24 Q. Is the Clairton plant subject to NESHAP
25 standards?

1 A. Yes.

2 Q. And does NESHAP stand for National Emissions
3 Standards For Hazardous Air Pollutants?

4 A. Yes.

5 Q. Hazardous air pollutants like the pollutants that
6 Mr. Willis asked you about?

7 A. Yes.

8 Q. What's the Clairton plant's compliance percentage
9 with those NESHAP standards?

10 A. 100 percent.

11 MR. DAUSCH: That's all I have.

12 HEARING OFFICER SLATER: Anything else, Mr.
13 Willis?

14 MR. WILLIS: Yeah.

15 RE-CROSS-EXAMINATION

16 BY MR. WILLIS:

17 Q. Notwithstanding the NESHAP, would you agree that
18 the Allegheny County Health Department's regulations are
19 more stringent than that of the federal government?

20 A. Yes.

21 Q. In your understanding of the Allegheny County
22 Health Department, do you know or are you aware that the
23 Allegheny County Health Department is concerned about
24 public health?

25 A. Yes.

1 Q. It's a public health agency?

2 A. Yes.

3 Q. We talked about those BTEX, benzene, toluene,

4 xylene, ethylbenzene, yes?

5 A. I'm sorry, what was the question?

6 Q. Do you recall us talking about benzene, toluene,

7 xylene?

8 A. Yes.

9 Q. And you said you were aware that benzene was a

10 carcinogen?

11 A. Yes.

12 Q. Do you consider that a public health concern?

13 A. Yes.

14 MR. WILLIS: I have no further questions.

15 HEARING OFFICER SLATER: Anything else, Mr.

16 Dausch?

17 REDIRECT EXAMINATION

18 BY MR. DAUSCH:

19 Q. Mr. Rhoads, is it your testimony that any

20 emissions of any hazardous air pollutants in whatever

21 miniscule amounts would constitute a public health

22 concern?

23 A. No.

24 Q. And is it your understanding that there has been

25 some analysis done on these pollutants and that's why

1 emissions limitations exist?

2 A. Yes, it's my understanding that was the basis of

3 the NESHAP standards.

4 MR. DAUSCH: That's all I have.

5 HEARING OFFICER SLATER: Mr. Willis?

6 RE-CROSS-EXAMINATION

7 BY MR. WILLIS:

8 Q. Is it your understanding that NESHAP has anything

9 to do with health outcomes?

10 A. I don't know the exact basis of the standard.

11 MR. WILLIS: Okay. No further questions.

12 MR. DAUSCH: Nothing.

13 HEARING OFFICER SLATER: All right. You may step

14 down, sir.

15 And since it's noon, or almost noon -- we can go

16 off the record.

17 (The hearing recessed at 11:59 a.m. and

18 reconvened at 1:05 p.m.)

19 HEARING OFFICER SLATER: Let's go back on the

20 record.

21 MR. DAUSCH: So we'll put this on the record: we

22 want to make sure we have the right exhibits that have

23 been admitted so far.

24 We have -- did you keep track of your exhibits?

25 MR. WILLIS: No.

1 COURT REPORTER: I mean, I have them.

2 MR. DAUSCH: So I have ACHD 1 through 27, and

3 then U.S. Steel 1 through 69, and then we have Joint

4 Exhibit 1 and 2.

5 For our next witness, we will call Tishie

6 Woodwell.

7 TISHIE WOODWELL, called as a witness, being

8 previously sworn, testified as follows:

9 DIRECT EXAMINATION

10 BY MR. DAUSCH:

11 Q. Can you please introduce yourself to Mr. Slater?

12 A. Sure. I'm Tishie Woodwell. I'm currently the

13 general manager of environmental affairs for United

14 States Steel located here in Pittsburgh. And it's

15 Tishie, T-I-S-H-I-E; Woodwell.

16 HEARING OFFICER SLATER: W-O-O-D-W-E-L-L?

17 MS. WOODWELL: That's correct.

18 HEARING OFFICER SLATER: All right.

19 BY MR. DAUSCH:

20 Q. As the GM of environmental affairs, what do you

21 do?

22 A. I'm responsible for our company's permitting,

23 compliance, enforcement, and regulation development at

24 our facilities.

25 Q. And does that involve the coke plants?

1 A. Oh, definitely, yes, the existing coke

2 facilities, as well as some of our former ones.

3 Q. Can you tell us about your employment history

4 with United States Steel?

5 A. Sure. I've been with U.S. Steel for 29 -- just

6 over 29 years. And for about 10 years, I was in our law

7 department as our environmental air attorney. Then for

8 the last 12 years, I've been on the technical side in

9 environmental affairs.

10 Q. Okay. What is your educational background?

11 A. I have a BS -- a BA in sociology, and then I have

12 a Master's in criminal justice and a law degree.

13 Q. Did you have additional post-graduate classes

14 that you took when you had your legal role?

15 A. I did. Because I was a sociology major, I found

16 that I needed to gain a better understanding on the

17 technical side.

18 So while I was in the law department, because I

19 really focused on compliance, I went back to school. I

20 took organic chemistry, biology, and also a number of

21 classes at Duquesne for their Master's of environmental

22 program.

23 Q. Did you have any training that's specific to the

24 coke-making process?

25 A. Yes. Because coke making is a rather unique

1 process, we do a lot of in-house training because we
2 have experts that worked in the facilities for years and
3 have a lot of technical knowledge. So we have coke-
4 making classes. I attended that. Then later, I taught
5 the environmental section of the coke-making class.

6 Q. And approximately how long did you teach the
7 environmental section of the coke-making class?

8 A. I taught for about five years, give or take; and
9 then now, I'm focusing my department to it and I review
10 their slides and make sure they understand what needs to
11 be taught.

12 Q. Okay. In your role, do you have responsibility
13 for overseeing compliance with air emissions regulations
14 at the Clairton plant?

15 A. Yes, I do.

16 Q. And have you had to familiarize yourself with
17 those regulations?

18 A. Absolutely.

19 Q. Are you familiar with both criteria pollutants
20 and hazardous air pollutants?

21 A. Yes, I am.

22 Q. And is there a difference?

23 A. There is a difference. The Clean Air Act
24 discusses them both and sets forth the procedures for
25 those. For the criteria pollutants, those are common

1 A. They go through a process, again, prescribed by
2 the Clean Air Act, where they evaluate the data,
3 determine who and what sources contribute to that
4 monitor, and then they work the various stakeholders to
5 develop a plan to reduce emissions from the various
6 facilities, cars, trucks, that type of thing, as well as
7 industrial facilities or other areas. They put that
8 into a regulation or a permit and then implement it in
9 order to get the area into attainment.

10 Q. And that plan that you just described, does it
11 have a name?

12 A. It's referred to as a state implementation plan.

13 Q. And "state implementation plan" is sometimes
14 called a "SIP" for short?

15 A. Yes, uh-huh (affirmative.)

16 Q. Okay. Who is typically involved in developing
17 the SIP?

18 A. There are many different folks involved in making
19 the SIP: obviously, the regulating agency; for example,
20 here, Allegheny County, as well as the Pennsylvania
21 Department of Environmental Protection, U.S. EPA; and
22 then the various sources that could be culpable or
23 contribute to the monitored exoscedances; and then
24 because it's a public process, stakeholders; and then
25 also area source representatives, like people that deal

1 pollutants, and there are six of them.

2 And then the hazardous air pollutants, there are
3 about 189, give or take, depending on the time.

4 Q. The two pollutants identified in the enforcement
5 order, specifically SO2 and PM2.5, are those criteria
6 pollutants or hazardous air pollutants?

7 A. They are criteria pollutants.

8 Q. How are criteria pollutants regulated?

9 A. The Clean Air Act provides the method and
10 procedures used to regulate those. They start out by
11 doing science and studies to determine what those
12 pollutants — how they impact public health, and then
13 the jurisdictions go through and determine if the areas
14 aren't meeting attainment or attaining those standards,
15 how to make the area come into attainment.

16 Q. Okay. And so these standards apply to areas, not
17 to specific plants like the Clairton plant?

18 A. That's correct.

19 Q. Okay. We've heard in this hearing reference to
20 different monitors. Do those have any relevance to
21 criteria pollutants and how they are regulated?

22 A. Yes. The monitor data is the data upon which the
23 designations of attainment or non-attainment are made.

24 Q. Okay. And if an area doesn't meet a limit for a
25 criteria pollutant like SO2 or PM2.5, what happens?

1 with cars, if that's an item that they are focused on.

2 Q. And did Allegheny County prepare a SIP for SO2?

3 A. Yes.

4 Q. And was it finalized?

5 A. Not yet. The standard was set back in 2010 and
6 the area was -- Allegheny County was out of attainment,
7 so they worked on the plan and then they submitted the
8 plan. DEP looked at it, and it is currently with EPA
9 who has to approve it. It's in the proposed stage.

10 Q. Okay. Was U.S. Steel involved at all in the SIP
11 for SO2?

12 A. Yes, we were very involved.

13 Q. What was U.S. Steel's role?

14 A. We worked with the Allegheny Health Department
15 and the other team members to look at the modeling for
16 SO2, and then we worked with the agencies and our
17 internal folks to develop strategies to reduce those SO2
18 emissions.

19 Q. Can you look at Exhibit 45, please?

20 A. Okay.

21 Q. Are you familiar with what Exhibit 45 is?

22 A. Yes, I am.

23 Q. And what is it?

24 A. It is the Allegheny County permit that was issued
25 to Clairton for our reductions for the one-hour SO2.

1 Q. Okay. And did this permit have some relation to
2 the SIP process that you just described?

3 A. Yes. The SIP itself is a regulation or a plan
4 developed by the agency; and then to make sure that the
5 different reductions are required, they can either do it
6 by rule or, in this case, they do a permit. So this is
7 a permit that we have to implement our reductions for
8 the SO2 SIP.

9 Q. And what is the regulating agency that issues
10 this permit?

11 A. In this case, it's Allegheny County Health
12 Department.

13 Q. Okay. Can you look at page 4 of this permit that
14 is Exhibit 45, U.S. Steel?

15 A. Yes.

16 Q. Table 2-1, emission unit identification, what
17 does this table represent?

18 A. Those are the emission units that are regulated
19 by the permit.

20 Q. Who prepared the permit that we are looking at?

21 A. The permit is prepared by the Allegheny County
22 Health Department.

23 Q. Okay. And what does the table reflect, Table
24 2-1?

25 A. It lists the emission units that are impacted by

1 county has are Article 21 regulations?

2 A. Uh-huh (affirmative.)

3 Q. You have to say "yes" or "no."

4 A. Oh, yes, sorry.

5 Q. And when an Article 21 regulation is enacted, is
6 there some process that occurs?

7 A. Yes. The process is very complicated here in
8 Allegheny County because it goes through -- the public
9 is involved through all the different stages, but it
10 starts with the regulation subcommittee, then to the air
11 advisory committee, then to the Board of Health, then to
12 the County Council, and then it goes out for public
13 comment. So it's a very long process.

14 Q. Does the Article 21 regulations that exist today,
15 do they have door-leak limits for batteries?

16 A. Yes, they do.

17 Q. And those regulations, did they go through that
18 rulemaking process that you described?

19 A. To my knowledge, yes, they did.

20 Q. Are you familiar with the B Battery coke-side,
21 door-leak standard that's in the enforcement order?

22 A. Yes, I am.

23 Q. Did that go through any rulemaking process?

24 A. No, it did not.

25 Q. Was there any chance for public comment on that

1 the permit, and so those are the ones that are addressed
2 for the SO2 reductions.

3 Q. Okay. And would the sources that are identified
4 in this table be the sources that you would expect to
5 have contributions of SO2?

6 A. Yes, they are the ones that have significant
7 contribution for which we implemented control
8 strategies.

9 Q. Okay. Are any door-leak fugitive emission points
10 identified in that table?

11 A. No, they are not.

12 Q. And why is that?

13 A. Because they weren't considered a source that
14 impacted the monitor enough to be considered relevant.

15 Q. Okay. Is there a process that occurs before the
16 SIP is finalized and submitted by the county?

17 A. Yes. As I mentioned, the county -- or the
18 jurisdiction issues permits or rules. They go through
19 public comment, and then they are consolidated into the
20 plan which also goes out for public comment, and then
21 there can be hearings if people request them.

22 Q. Okay. And are there occasions where regulations
23 are enacted or adjusted as part of the SIP process?

24 A. Yeah, there can be.

25 Q. Okay. And, for example, the regulations that the

1 standard?

2 A. No, there was not.

3 Q. To your knowledge, did U.S. Steel have any
4 ability to review that limit with the Department before
5 it was placed in the enforcement order?

6 A. No, we did not.

7 Q. I want to switch from SO2 to the other criteria
8 and pollutant identified in the enforcement order,
9 PM2.5. Is there also a SIP process that would occur for
10 PM2.5?

11 A. Yes.

12 Q. What's the status of that?

13 A. The standard was revised in -- so where we are
14 with that is that Allegheny County is currently
15 developing a SIP which it has yet to finalize or even
16 propose.

17 Q. And does U.S. Steel expect to be involved in that
18 SIP process?

19 A. Yes, we do.

20 Q. Okay. We talked about the criteria pollutants.
21 I want to switch now to hazardous air pollutants.

22 Are there hazardous air pollutants that are
23 emitted from the coke batteries at Clairton?

24 A. Yes, there are.

25 Q. And we've talked a lot about those in some of the

1 testimony in this hearing, correct?

2 A. Correct.

3 Q. Are hazardous air pollutants regulated
4 differently than the criteria pollutants that you just
5 talked about?

6 A. Yes, they are. Under the Clean Air Act, they
7 are, yes.

8 Q. Okay. And how are hazardous air pollutants
9 regulated?

10 A. The Clean Air Act contains a list of hazardous
11 air pollutants. There are about 187 to 189 that comes
12 and goes depending on different petitions to the agency.

13 Then the Clean Air Act requires that MACT
14 standards are set for those hazardous air pollutants;
15 and for the ease of regulating them, they categorize
16 them as source categories.

17 So where there's a list of hazardous air
18 pollutants, they then categorize, like, where they are
19 most likely coming from. So there will be a MACT set
20 for boat builders, for auto repair shops, for coke
21 plants and that type of thing. So they developed the
22 MACT standard and then all that goes through public
23 comment also.

24 Q. In very simple terms, what is a MACT standard?

25 A. The MACT standard, it stands for Maximum

1 A. Yes, they were.

2 Q. And can you explain how that process occurred?

3 A. So the Clean Air Act addressed coke facilities
4 and they set up a review of what was going on at the
5 time and they used the stakeholder process. So
6 representatives from the various agencies, Allegheny
7 County Health Department representatives or DEP, was
8 there. There were coke manufactures represented there.
9 The United Steelworkers were represented and many
10 environmental groups that were maybe represented here
11 today.

12 Q. Okay. And what ultimately happened? Were NESHAP
13 regulations proposed for coke batteries?

14 A. Yeah, the NESHAP regulations for coke batteries
15 were proposed and then they were finalized, and they
16 addressed what we've been talking about here, charging,
17 doors, lids, and offtakes.

18 Q. And the proposal, was that based on the MACT that
19 you described earlier?

20 A. Yes, it established what the MACT standards were;
21 and then due to the complexity of the coke facilities,
22 they also set the standards.

23 Q. So let's first start with Exhibit 46.

24 A. Okay.

25 Q. Can you tell us what Exhibit 46 is, please?

1 Achievable Control Technology. Depending on the size of
2 the group that's being regulated, it's generally the
3 average of the top 12 percent.

4 But then some different categories, there aren't
5 that many folks in them, so if it's smaller group, I
6 think it is 30 or less, and then you take the top five
7 performers.

8 Q. And when you said "source categories," can you in
9 simple terms explain what that means?

10 A. Source category means the type of industry or
11 activity that emits that type of pollutant.

12 Q. And so, for example, would there be MACT
13 standards that are specific to coke batteries?

14 A. Yes, there are.

15 Q. Okay. And how does that relate to what we've
16 heard about called NESHAP in this hearing?

17 A. They — the NESHAP is the program, I guess, and
18 then the MACT standard is the criteria or technology
19 that they use to set them initially.

20 People use them interchangeably, but they are
21 basically the same thing: to regulate hazardous air
22 pollutants from different facilities.

23 Q. And so does that mean that NESHAP regulations
24 were enacted for coke batteries using these MACT
25 standards that you described?

1 A. Yeah. I think my copy might be a little mixed
2 up.

3 Q. Okay.

4 A. Oh, here we go. Yeah, it had the midsection at
5 the beginning.

6 Q. Okay.

7 A. But it looks and it's — these are the NESHAP
8 standards for coke oven batteries for doors, lids,
9 offtakes, and charging.

10 Q. Okay. And do you have what's in the top left
11 labeled 40 CFR, Part 63?

12 A. Yes.

13 Q. And is it dated December 4th, 1992?

14 A. Yes, it is.

15 Q. And are these the proposed rules and notice of
16 public hearing?

17 A. Yes, these would be the proposed rules for the
18 regulations.

19 Q. Okay. And so when the NESHAP regulations for
20 coke batteries were developed, was their first proposed
21 rules and then a process before they became final?

22 A. Yes, as standard with most — all of EPA
23 regulations, they gather information, develop a
24 proposal, send that out for public comment, and receive
25 comments back.

1 There could be a public hearing. They review the
2 comments and then make adjustments, if appropriate, and
3 then issue the final rule, which also goes out for
4 public comment.

5 Q. And was there a final NESHAP rule that was
6 promulgated for coke batteries?

7 A. Yes, there was.

8 Q. Can you look at Exhibit 47?

9 A. Yes.

10 Q. What is Exhibit 47?

11 A. This is the final rule for the NESHAPs for coke
12 oven batteries, charging lids, doors, offtakes.

13 HEARING OFFICER SLATER: So this went into effect
14 in October of 1993?

15 MS. WOODWELL: Yeah, that's when the rule was
16 finalized, correct.

17 HEARING OFFICER SLATER: And this is the current
18 rule that is in effect?

19 MS. WOODWELL: Yes, it is, with some
20 modifications.

21 MR. DAUSCH: That we will discuss here in a
22 minute.

23 HEARING OFFICER SLATER: Okay.

24 MR. WOODWELL: It laid out a process.

25 HEARING OFFICER SLATER: I'm putting the cart

1 performing coke plant that was analyzed as part of the
2 NESHAP process?

3 A. That's correct.

4 Q. And what was the top-performing plant that was
5 used to develop the LAER track regulations?

6 A. It was our Clairton facility.

7 Q. Okay. What track did U.S. Steel choose?

8 A. Initially, all the coke facilities, including
9 ours, chose the MACT track because we were just kind of
10 getting organized in seeing where we compared to
11 all these new standards. Eventually, we chose the LAER
12 track.

13 Q. After the NESHAP standards were enacted, were
14 they ever reviewed again?

15 A. Yes, absolutely. The Clean Air Act prescribes
16 actually two different stages. The first stage is to
17 set the MACT standard, and then there's a second stage
18 which is that the technology rule is to be reviewed
19 for — it is called the residual risk review, and that
20 is to determine if the rules that were in place are
21 protective of the public with an ample margin of safety.

22 Q. And did that risk review occur?

23 A. Yes, it did, for the coke batteries, yes.

24 Q. And what is your understanding of what happened?

25 A. The process again went through the — it was for

1 before the horse here.

2 MR. DAUSCH: That's okay.

3 BY MR. DAUSCH:

4 Q. Were there different tracks that were created
5 with respect to the NESHAP for coke batteries?

6 A. Yes. As I referenced before, they established
7 the MACT track, which is the maximum achievable control
8 technology track, which was for sort of the top — you
9 know, the group of top performers, either the 12 percent
10 or five. And then —

11 Q. And when you say, "top performers, are you
12 talking about top-performing coke batteries or coke
13 plants?

14 A. Yes, with the technologies, yes.

15 Q. And those were reviewed as part of the NESHAP
16 rulemaking process?

17 A. Correct.

18 Q. Okay.

19 A. And then the second track was the LAER track,
20 which is L-A-E-R, the lowest achievable emission rate.
21 And that's different than the MACT track because this is
22 actually the lowest emission rate, which signifies it's
23 the top performer in that group. It's the lowest you
24 can go.

25 Q. And so the LAER track would be based on the top-

1 residual risk. So EPA modeled and determined whether or
2 not the standards were protective of public health
3 within an ample margin of safety.

4 And then they set the — they set the standards.
5 It turned out to be actually that they found it
6 protective — that LAER was protective of public health.

7 So they basically revised the standard to
8 implement LAER. So the rule went through proposal
9 again, public comment, and then finally it was
10 promulgated.

11 Q. And if you look at Exhibit 48, can you tell us
12 what this is?

13 A. This is the proposed rule for the residual risk
14 review of the NESHAP.

15 Q. Okay. And just like the original NESHAP process,
16 when this risk review was done, was there a proposed
17 rule that was able to be commented on by the public
18 before there was a final rule?

19 A. Yes, absolutely.

20 Q. And did that process happen?

21 A. Yes, it did.

22 Q. Was there a final rule?

23 A. Yes, the final rule was published or promulgated
24 about a year later.

25 Q. And if you look at Exhibit 49 --

1 A. Yes, that's the final rule.

2 Q. What was the result of the final rule that was
3 enacted?

4 A. Actually, after an extensive review, the EPA
5 determined that the IAER standards, which were part of
6 the original option, in the original rule in one of the
7 tracks, that actually was protective of public health
8 within an ample margin of safety, and so they set that
9 as the standard.

10 Q. And when the review was done of public health,
11 what types of pollutants were reviewed?

12 A. The hazardous air pollutants that they regulated.

13 Q. Okay. And those were reviewed specifically with
14 respect to coke plants?

15 A. Yes.

16 Q. Okay. And is Clairton still subject to NESHAP
17 requirements related to coke plants?

18 A. Absolutely.

19 Q. And how has Clairton's compliance been?

20 A. We are 100 percent compliant with the NESHAP.

21 Q. So Clairton is 100 percent complying with the
22 National Emission Standards for Hazardous Air
23 Pollutants?

24 A. That's correct.

25 Q. Do the NESHAP regulations include door-leak

1 standards?

2 A. Yes, they do.

3 Q. And did those door-leak standards go through that
4 same process that you just described?

5 A. Yes, they were a critical part of the residual
6 risk review, as they are one of the primary sources
7 regulated under the NESHAP.

8 Q. And was there also an analysis of door leaks that
9 occur underneath a shed?

10 A. Yeah. There was a lot of discussion about the
11 shed — batteries with sheds because it is different
12 than the other types of pollution control equipment. So
13 the agency looked at that specifically and regulated the
14 emissions from the doors under the shed.

15 Q. Okay. And with respect to the NESHAP regulations
16 that regulate door emissions, how has Clairton's
17 compliance percentage been?

18 A. We are 100 percent compliant with that emission
19 limit.

20 Q. So what does that mean in terms of hazardous air
21 pollutants?

22 A. That means that because we are in compliance with
23 the NESHAP limits, based on EPA's review, we are
24 protecting public health.

25 Q. One hundred percent?

1 A. Yes.

2 Q. Do you recall the testimony that Ms. Graham gave
3 on the first day related to SDS sheets that included
4 coke oven gas and different hazards associated with
5 them?

6 A. Yes, I do.

7 Q. Okay. The environmental affairs group that you
8 are a part of at U.S. Steel, do you have some role with
9 respect to SDS or MSDS sheets?

10 A. Yes, we do.

11 Q. What are those sheets?

12 A. They are safety data sheets, sometimes called
13 MSDSes. Now they are SDSes. They are required by OSHA
14 to let folks know what is in the material chemical
15 product that you have on site so you know what potential
16 impacts are to you and your co-workers.

17 Q. Okay. And are they developed in any way to
18 address risks of hazardous air pollutants from battery
19 fugitive emission points?

20 A. No, their primary purpose is to let you know what
21 is in the product. It's not to address the risk
22 associated with it.

23 Q. Okay. And the review that the federal government
24 did would have been the NESHAP process that you
25 described?

1 A. Yes.

2 Q. I want to switch topics and talk about the Title
3 V operating permit. Are you familiar with that
4 document?

5 A. Yes, I am.

6 Q. And do you have to be as part of your job?

7 A. Absolutely.

8 Q. Did you have some role in preparing the documents
9 that ultimately became the Title V operating permit?

10 A. Yes, I was on the team that prepared the original
11 Title V applications, and then I also was on the team
12 that worked on the permit when it went out for public
13 comment and was finalized.

14 Q. Can you look at Exhibit 30, please, which would
15 be in the first binder? Can you tell us what that
16 document is?

17 A. This is the Title V permit for Clairton Works
18 issued by the Allegheny County Health Department.

19 Q. And would this permit include the federal NESHAP
20 standards, as well as the Article 21 standards that
21 apply to the Clairton plant?

22 A. Yes. The Title V Program is the — was designed
23 through the Clean Air Act to basically take all of the
24 requirements to which a facility is subject and put them
25 in one document, so it would include federal and state

1 and local requirements.

2 Q. Is that why the document is as thick as it is?

3 A. Yes. It's over 250 pages. And in addition to
4 the requirements, the other reason why it's so long is
5 it's required to have testing, monitoring, record
6 keeping, and reporting to ensure compliance with those
7 conditions. So it's very voluminous.

8 Q. Okay. I want to switch topics and talk a little
9 bit about methods for reading opacity.

10 A. Okay.

11 Q. Were you here throughout this hearing and heard a
12 little bit about the testimony of Method 9 and reading
13 opacity?

14 A. Yes.

15 Q. Are you familiar with Method 9?

16 A. I am.

17 Q. Have you ever been certified under Method 9?

18 A. I have been.

19 Q. And in your role, do you have to understand the
20 different methods for opacity readings?

21 A. Yes, I do. Because we are required to do Method
22 9, or various method readings in our facilities, we hire
23 consultants or contractors to do some of that, as well
24 as being inspected by the various agency
25 representatives.

1 They also talked about how important it was to
2 get more than just one reading. Because of this
3 deviation, it's important to get a bunch of readings so
4 they are actually representative of what the conditions
5 are at that time.

6 Q. Are you familiar with the six-minute averaging
7 period?

8 A. Yes, Method 9 requires a six-minute averaging
9 period.

10 Q. Would you be able to read Method 9 and see that?

11 A. Yes.

12 Q. Okay.

13 A. It's clearly set forth in the — in Method 9,
14 which is an EPA procedure. All those go out for public
15 comment and review. And you need to read at 15-second
16 intervals for six minutes or read 24 different times,
17 and then you average them.

18 Q. And what's the purpose of doing that averaging
19 period?

20 A. The averaging period, as I just talked about, was
21 there is a known potential for deviation from reader to
22 reader because we are human and so they want you to read
23 more to kind of smooth that out so it's more accurate.

24 Q. And were you present for some of the Allegheny
25 County Health Department inspectors who say they do

1 So it's important for us to understand what's
2 required, how it's to be done, and then we can see if
3 there are any issues that come up as the inspections are
4 being done.

5 Q. Has EPA ever done any studies that you are aware
6 of on the different methods for reading opacity?

7 A. Yes, they've done a lot of studies.

8 Q. Okay. If we look at Exhibit 38, are you familiar
9 with this document?

10 A. Yes.

11 Q. What is that?

12 A. The is a study that was prepared by US EPA
13 looking at Method 9, which is the opacity regulation
14 that we talked about, and also Method 22.

15 Q. And was there any conclusion reached about Method
16 9 in its accuracy?

17 A. Yes.

18 Q. What was that?

19 A. There are a lot of details contained in here; but
20 fundamentally, it is the — they concluded — we talk
21 about it a lot because there's subjectivity when you do
22 readings, and we commonly refer to it as a plus or minus
23 seven and a half percent, which is what they concluded
24 because it's visual, that there be a possibility that
25 you -- different readers could deviate that much.

1 Method 9 opacity readings in a blink of an eye?

2 A. Yes, I was present.

3 Q. And is your understanding that that's a proper
4 Method 9 opacity observation?

5 A. I found that testimony a bit confusing because
6 Method 9 doesn't address instantaneous. It's an
7 averaging time.

8 Q. Okay. Did EPA ever discuss using Method 9 to
9 enforce SIP limits?

10 A. Method 9 can be used to enforce SIP limits if the
11 regulation, the underlying regulation or permit, says
12 Method 9; and also if it's silent, then you defer to
13 Method 9.

14 But many jurisdictions have averaging periods
15 that are different than the six minutes and then you
16 wouldn't necessarily — you wouldn't use Method 9.

17 Q. Okay. Were there ever alternative methods for
18 reading opacity that were developed?

19 A. Yes, EPA did develop those.

20 Q. Okay. Can you look at Exhibit 39? What is
21 Exhibit 39?

22 A. Okay. Exhibit 39 is the final rule of EPA's
23 development of alternate opacity limits. So similar to
24 the other rules or regulations that EPA promulgates, it
25 goes out for public comment, and this is the final rule

1 for Method 203.

2 Q. And what is Method 203?

3 A. EPA understood that there might be times when the
4 six-minute average, or Method 9, is inappropriate. They
5 did a number of studies looking at different regulations
6 and they found that there's some regulations that
7 require, like, an instantaneous reading, and they
8 thought it was important, again, to have consistency, to
9 have a rule that regulates the instantaneous observation
10 of opacity.

11 Q. Okay. And so Method 203 then would have been an
12 alternative method developed by EPA for use of
13 instantaneous readings?

14 A. That's correct.

15 Q. And can you use Method 203 to take an opacity
16 reading in the blink of an eye?

17 A. No. The rule is very prescriptive, again,
18 because just a glance isn't appropriate, and they wanted
19 to make sure that you had multiple different readings.

20 Their rule says that you need to do five-second
21 intervals for a period of a minute. So it's still
22 really, really short, you know, it's much shorter than
23 Method 9. So it's instantaneous but it's not just a
24 glance.

25 Q. So an instantaneous opacity reading would then

1 source testing manual?

2 A. Yes, it is.

3 Q. In the source testing manual, it says that --
4 there is a date of November 22, 1993. Do you see that?

5 A. I do.

6 Q. How does that date compare to when Method 203 was
7 ultimately a final rule?

8 A. It's -- I believe this would be when it was
9 proposed because it was finalized much later than that.

10 Q. Okay. There's been some questioning with
11 different inspectors about whether U.S. Steel has ever
12 raised any concerns about how the county's -- or the
13 Department's inspectors do observations at the Clairton
14 plant. Were you here for that testimony?

15 A. Yes, I was.

16 Q. Has U.S. Steel ever raised concerns?

17 A. Yes. We have fairly regular discussions with the
18 county representatives about different concerns of the
19 source testing manual, and our understanding, although
20 it's been awhile, is that they were going to revise the
21 source testing manual to address many of the issues that
22 we've talked to them about, but I don't believe they
23 have done that.

24 Q. Okay. And do you know where that process stands?

25 A. No. Last I heard, they are working on it.

1 mean it would take at least a minute?

2 A. Correct, under Method 303 -- I mean 203, sorry.

3 Q. Okay. Do you know if this Method 203 for
4 instantaneous opacity readings is referenced anywhere in
5 the Department's source testing manual?

6 A. Yes, it is.

7 Q. Okay. If we look at Exhibit 22, which is the
8 source testing manual, --

9 A. Okay.

10 Q. -- there's an appendix in the back; is that
11 correct?

12 A. Yes.

13 Q. And after the appendix, a cover sheet?

14 A. Yes.

15 Q. It will be on the left side of our binder when we
16 get there. On the right-hand side, there are different
17 methods and references; is that correct?

18 A. That's correct.

19 Q. And does Method 203 that you described, the 203C,
20 show up in this document?

21 A. Yes, it does. It's in the middle of the page.

22 Q. And you had mentioned that this is a reading for
23 an instantaneous opacity reading; is that right?

24 A. That's correct.

25 Q. Is it referenced that way in the Department's

1 Q. Okay. Were you present when Mr. Rhoads described
2 the C Battery, the newest battery at the Clairton plant?

3 A. Yes, I was.

4 Q. Can you look at Exhibit 50? Are you familiar
5 with this document?

6 A. Yes, I am. It's the -- it's our C Battery permit
7 issued by the Allegheny County Health Department.

8 Q. And is the C Battery included in Clairton's Title
9 V operating permit?

10 A. It is currently not, but it will be on the --
11 when the Title V permit is reissued.

12 Q. And why is it not on the current Title V
13 operating permit?

14 A. The Title V permit is the operating permit that
15 the agencies issue for five years. Towards the end of
16 that, the permittee is required to submit a renewal
17 application, and then the agency updates the Title V
18 permit to include new regulations but also a new
19 installation permit. So that's why I anticipate that
20 this permit will be included in the next re-issuance of
21 the Title V.

22 Q. Okay. Was it the timing of the C Battery that
23 was the reason why it wasn't included in the existing
24 Title V operating permit?

25 A. That's correct.

1 Q. Okay. I want to talk to you a little bit about
2 the emission standards at the Clairton plant. How did
3 those standards compare to standards at other coke
4 plants in the country?

5 A. They are the most stringent in the country.

6 Q. And with respect to overall batteries, since the
7 2017 timeframe, how has the compliance range generally
8 been at Clairton?

9 A. Generally very high, 98, 99 percent plant-wide.

10 Q. In a situation where the plant is subject to the
11 most stringent regulations in the country, how do you
12 view that percentage?

13 A. I view it very high and very good. And I think
14 that if you kind of equated it to I have kids and I have
15 taken tests in my timeframe and, you know, if my
16 daughter comes home with an 98 or 99-percent compliance,
17 I am very pleased. You know, I still maybe ask her if
18 she can do better; but generally speaking, that's very
19 good.

20 Q. And how does your -- based on your experience,
21 how does that percentage compare to other coke plants?

22 A. It's very high, particularly considering that the
23 standards are so tight.

24 Q. We had talked a lot in this hearing about a 2016
25 Consent Judgment. Were you involved in any way with

1 compliance target.

2 Q. And was there some period of time that U.S. Steel
3 had to reach that compliance target?

4 A. Yes, three years from the effective date of the
5 agreement.

6 Q. What was the purpose of that three-year period?

7 A. The purpose was to have us work on the batteries
8 and implement the improvements mainly to the walls and
9 get the batteries up to the 98.5-percent compliance rate
10 or above.

11 Q. Okay. That three-year period to reach the
12 compliance rate, was U.S. Steel given a similar
13 timeframe in the enforcement order?

14 A. No, it was not.

15 Q. How do they differ?

16 A. Well, three years is three years. The
17 enforcement order, we got it about mid-June 2018 and the
18 compliance starts the beginning of 2019. So it's about
19 six months.

20 Q. Okay. And does that limit the types of things
21 U.S. Steel can do to try to comply?

22 A. Yes, very much so.

23 Q. In what way?

24 A. There are a number of items, and Mike Rhodes
25 alluded to one of them, where we are working on

1 that?

2 A. Yes, I was.

3 Q. And can you look at that document which is in
4 Exhibit 1, and it's an attachment to the enforcement
5 order that's the subject of this appeal. This is U.S.
6 Steel Exhibit 1.

7 HEARING OFFICER SLATER: In the appendix?

8 MR. DAUSCH: It's about halfway through the
9 document and it says page 1 of 24 on it.

10 HEARING OFFICER SLATER: Oh, I see.

11 BY MR. DAUSCH:

12 Q. And is this the 2016 Consent Judgment that was
13 agreed to between U.S. Steel and the Department and
14 entered by Judge Ward of the Allegheny County Court of
15 Common Pleas?

16 A. Yes, it is.

17 Q. Were you involved in that?

18 A. Yes, I was.

19 Q. What was your role?

20 A. I was lead on the technical side.

21 Q. Okay. And what generally was agreed to in the
22 2016 Consent Judgment that was entered by the Court?

23 A. Generally, it was agreed that the stack
24 performance would be an indicator of performance plant-
25 wide and that U.S. Steel would reach a 98.5 percent

1 improving the doors on the coke side of B Battery, and
2 that takes time, and it would prohibit installation of
3 additional controls even if they were available.

4 Q. Can you look at page 4 on the 2016 Consent
5 Judgment, please?

6 A. Okay.

7 Q. U.S. Steel and the Department agreed on paragraph
8 26, correct?

9 A. That's correct.

10 Q. And it says, "The parties have agreed that the
11 most effective surrogate for environmental performance
12 across the entire facility is plume opacity from the
13 battery combustion stacks;" is that right?

14 A. That's correct.

15 Q. And how is plume opacity measured from the
16 battery combustion stacks?

17 A. As discussed by others, the battery stacks are
18 the tall stacks, and we have continuous opacity monitors
19 installed in those which can read for 24/7, 365 days a
20 year the opacity from an objective perspective.

21 Q. And why is it that battery stack opacity is the
22 best overall surrogate for environmental performance
23 across the entire Clairton plant?

24 A. Well, there are a couple reasons: one is that
25 the stacks are very tall and they emit the bulk of the

1 emissions from the facility. You can see them when you
2 drive along the street. So they represent overall
3 compliance. It's a good surrogate to show how the plant
4 is operating.

5 Q. And how does their height compare to the height
6 of the batteries?

7 A. The stacks are very tall; the batteries are much
8 closer to the ground.

9 Q. Okay. Does that have any effect on emissions?

10 A. It has a big effect as demonstrated through
11 various models. The taller the stack, the higher the
12 emissions are, so they can go further out into the
13 communities around the facility.

14 The fugitives are much lower to the ground, so
15 the chance of them going off property are less than the
16 stacks.

17 Q. And how big is the property at Clairton?

18 A. The property is about just over three miles long.

19 Q. Okay. Do you recall what the compliance standard
20 was that was agreed to in the 2016 Consent Judgment?

21 A. 98 and a half percent.

22 Q. Okay. And compliance for the stacks, you
23 mentioned, is determined by the CCMS, or the continuous
24 opacity monitoring system, correct?

25 A. Yes.

1 Q. Can you look at Exhibit 41 on page 8? This is
2 the second binder. Can you tell us what this depicts?

3 A. Yes. This is a chart, a graph of our stack
4 opacity plant-wide. It contains on the one side the
5 percent compliance; and then as it goes across the
6 bottom, it has the data or the dates from January 2013
7 through September 2018.

8 Q. And so would we be able to look at this data and
9 see how performance of the battery stacks have changed
10 since the 2016 Consent Judgment?

11 A. Yes, it demonstrates that.

12 Q. Do the battery stacks have two different opacity
13 standards?

14 A. Yes, they have a 60 percent and a 20 percent. So
15 on the chart, the 60 percent is the orangish line and
16 the 20 percent is the blue line.

17 Q. And what does this chart show with respect to the
18 20 -- or the 60-percent opacity standard for the battery
19 stacks?

20 A. It shows that for out of the entire timeframe, we
21 were just about at 100 percent, or very close, for 60
22 percent.

23 Q. And what does this show with respect to the 20
24 percent standard?

25 A. That throughout the timeframe, we were very high;

1 Q. And how is that data stored?

2 A. It's collected through electronic transmissions
3 into an electronic database.

4 Q. And as part of your regular job duties, do you
5 review that data?

6 A. I do.

7 Q. And it's voluminous if we tried to print it out
8 here?

9 A. Yes.

10 Q. U.S. Steel 43 in our binders is noted as an
11 electronic exhibit because it's an Excel file that was
12 produced with our prehearing statement, but I think
13 everybody should have the CD. We put the Excel file on
14 the CD.

15 HEARING OFFICER SLATER: Yeah, is that this one
16 at the beginning?

17 MR. DAUSCH: Yeah, Exhibit 43 is the CCMS data.

18 HEARING OFFICER SLATER: Okay.

19 BY MR. DAUSCH:

20 Q. Can you tell us how stack compliance has been
21 since the 2016 Consent Judgment?

22 A. It's improved and is very good.

23 Q. Okay. And do we have the voluminous CCMS data in
24 a chart format to make it easier to read?

25 A. We do.

1 and then we became almost close to 100 percent around
2 2016 to present.

3 Q. And was that following the 2016 Consent Judgment?

4 A. Yes, it was.

5 Q. And in the 2016 Consent Judgment, one of the
6 focuses was on improving battery stack compliance?

7 A. Yes.

8 Q. And do you know what recent battery stack
9 compliance has been?

10 A. Over 99 percent compliant plant-wide.

11 Q. And what was the compliance target in the 2016
12 Consent Judgment?

13 A. 98.5.

14 Q. Okay. And in a situation where U.S. Steel has
15 over 99-percent compliance on the best overall surrogate
16 for environmental performance site-wide, was that also
17 the same timeframe that U.S. Steel received the
18 enforcement order that's the subject of this appeal?

19 A. Yes.

20 Q. I'm going to switch topics and talk about the B
21 Battery coke-side door standard.

22 Are you familiar with the 10 door-leak per month
23 standard for the B Battery coke-side doors that's in the
24 enforcement order?

25 A. Yes, I am.

1 Q. Does the B Battery doors currently have standards
2 that apply to it?

3 A. Yes, it does.

4 Q. And what are those standards?

5 A. It has the federal NESHAP requirement, as well as
6 the Article 21 standard.

7 Q. And how are those standards enforced?

8 A. The federal standards are enforced through the
9 Method 303 readings, and Allegheny County standards are
10 enforced through the Health Department.

11 Q. And the Method 303 readings are done by the
12 Keramida inspectors who testified in this case?

13 A. That's correct.

14 Q. Are we able to compare the current standards that
15 apply to the B Battery doors to the standard that's in
16 the enforcement order?

17 A. Yes, we can compare the federal standard because
18 it's yard equivalent on a monthly basis.

19 Q. Okay. So if we look at U.S. Steel 51, has that
20 comparison been done?

21 A. Yes, it has.

22 Q. Will you explain to us how this comparison works?

23 A. Yes. First, it lists the federal NESHAP
24 requirement, which is the four percent leaking doors,
25 and then the proposed limit in the enforcement order.

1 order?

2 A. That the requirement in the enforcement order is
3 nine times more stringent than the federal NESHAP.

4 Q. Do you believe this standard is achievable?

5 A. I do not believe it's achievable on a consistent
6 basis, no.

7 Q. And why is that?

8 A. Because the EPA has done an extensive review on
9 what was achievable, and they recognized in their
10 research and documentation that you can't get to 100
11 percent, that there are a certain number of leaks that
12 will occur, and they went through the data and the
13 analysis and determined that four percent was the
14 appropriate number.

15 Q. And was that four percent number in any way
16 related to the IAER track that you mentioned earlier?

17 A. The four percent is the IAER track. The original
18 MACT requirement was higher than that, and then the four
19 percent was the IAER track that we became subject to, or
20 everybody became subject to, in 2010 but we took it
21 earlier.

22 Q. And remind us what IAER means.

23 A. It's the lowest achievable emission rate. So
24 that is, by definition, what is achievable with
25 technology.

1 The B Battery has 75 batteries, so it has 75
2 doors. And then we -- you calculate the number of --
3 the maximum number of allowed door leaks for a 30-day
4 period using the yard equivalent.

5 Q. And so 75 represents the number of doors on just
6 the coke side of B Battery?

7 A. That's correct.

8 Q. And you have listed here that the federal NESHAP
9 standard is four percent, and you mentioned earlier that
10 it's a monthly --

11 A. Yes, it's a monthly rolling average.

12 Q. Can you explain generally what that means?

13 A. Sure. So what we -- what is required under the
14 NESHAP is that the Method 303 inspectors, or the
15 Keramidas, go out every day and read the doors and then
16 they calculate the percent and then they do a 30-day
17 rolling average. So each day moves along 30 days, and
18 then the last day drops off and you roll along, and you
19 have to meet the four percent.

20 Q. So every day, there is a percentage that is
21 calculated based on the preceding 29 days?

22 A. Correct.

23 Q. Okay. And what does this show us with respect to
24 the comparison of the existing NESHAP standard compared
25 to the standard that's contained in the enforcement

1 Q. And so the lowest achievable emissions rate is
2 nine times less stringent than the limit that's in the
3 enforcement order?

4 A. That's correct.

5 MR. DAUSCH: That's all I have.

6 MR. WILLIS: My clients wanted to take a break so
7 we can confer.

8 HEARING OFFICER SLATER: Sure, yeah. Let's take
9 10 minutes.

10 (The hearing recessed at 2:00 p.m. and
11 reconvened at 2:11 p.m.)

12 HEARING OFFICER SLATER: Let's go back on the
13 record.

14 Mr. Willis, did you have some questions for Ms.
15 Woodwell?

16 MR. WILLIS: Yes, sir.

17 CROSS-EXAMINATION

18 BY MR. WILLIS:

19 Q. Ms. Woodwell, going back to your education, where
20 did you go to undergrad?

21 A. University of Vermont.

22 Q. And for -- do you have a Master's degree? Do you
23 have a Master's?

24 A. Yes, University of Pittsburgh.

25 Q. And for your law degree?

1 A. University of Pittsburgh.

2 Q. Thank you. Is Allegheny County currently in
3 attainment for SO2 or PM2.5?

4 A. With the new standards, no.

5 Q. Is SO2 a source of specific designation? Does
6 that qualify as a source of specific designation with
7 respect to --

8 A. I'm not sure I understand what you mean. SO2 is
9 a pollutant, a criteria pollutant.

10 Q. I want to shift gears. I want to do this a
11 little differently. Are you aware of Article 21?

12 A. Yes, I am.

13 Q. And is it fair to say that under the Clean Air
14 Act, the SIP regulations by any state or delegated
15 authority can be more stringent than the Clean Air Act?

16 A. That's fair, yes.

17 Q. Okay. I want to show you Article 21. Can you
18 flip to 2109.04, please?

19 HEARING OFFICER SLATER: 2109.04?

20 MR. WILLIS: .04, yes.

21 HEARING OFFICER SLATER: Okay.

22 BY MR. WILLIS:

23 Q. What's that title?

24 A. The title of 2109.04?

25 Q. Yes.

1 that's currently on appeal, did we order the shutdown of
2 any portion of U.S. Steel Clairton Works?

3 A. No.

4 Q. Did we order the entire facility to be shutdown?

5 A. No.

6 Q. It says "information." Does it specify what
7 information? Do we have to rely on the NESHAP
8 inspections?

9 MR. DAUSCH: Object to the extent he is asking
10 her to interpret a regulation that the Department
11 contends is at issue in this case.

12 MR. WILLIS: Well, I do believe she said she was
13 an attorney.

14 BY MR. WILLIS:

15 Q. Are you an attorney, Ms. Woodwell.

16 A. I am an attorney. I'm not representing the
17 company or making legal decisions for them.

18 Q. Are you a licensed attorney in the Commonwealth
19 of Pennsylvania?

20 A. I am.

21 Q. What's your PA ID number?

22 A. Okay, I don't use it very often.

23 Q. Do you know what it is?

24 MR. DAUSCH: It's completely irrelevant.

25 HEARING OFFICER SLATER: Yeah, I think the point

1 A. "Orders establishing an additional or more
2 restrictive standard."

3 Q. To your understanding, is that portion of the
4 Article 21 SIPed? Is it part of the state
5 implementation plan?

6 A. I don't know that.

7 Q. Could you read that first paragraph, please?

8 A. Paragraph A?

9 Q. Yes, please.

10 A. "General: Whenever the Department finds, on a
11 basis of any information available to it, that emissions
12 from any source are causing or significantly
13 contributing to the exceedance of any ambient air
14 quality standard established by Section 2101.10 of this
15 Article at any location within the Commonwealth, that
16 such emissions violate the requirement of Section
17 2101.12 of this Article relating to interstate
18 pollution, or that such emissions may otherwise
19 reasonably be anticipated to endanger the public health,
20 safety or welfare, it may order the person responsible
21 for such source to comply with additional or more
22 stringent emission limitations than established by this
23 Article or it may order immediate shutdown of the source
24 or any part thereof."

25 Q. Thank you. With respect to the enforcement order

1 has been established here. I'm going to allow Ms.
2 Woodwell to answer to the best of her knowledge with,
3 you know, the understanding that she is not a -- or she
4 does not represent the Health Department in any sort of
5 interpretation, in any capacity, especially regarding
6 interpretation of Health Department regulations.

7 MS. WOODWELL: Could you repeat the question?

8 BY MR. WILLIS:

9 Q. Yeah. Does it specify any particular information
10 that must be relied on?

11 A. Are you referring to the first sentence?

12 Q. Yes.

13 A. No, it does not discuss that.

14 Q. You would agree it would say "any information"?

15 A. It says "any information."

16 Q. Okay. In the SIP process, U.S. Steel -- with
17 respect to the SO2 SIP process, U.S. Steel was
18 intimately involved in that process; wouldn't you agree?

19 A. It was involved in the process, yes.

20 Q. At some point, did U.S. Steel offer any
21 suggestions in terms of a draft of how they would like
22 to see that SIP to be reflected, that permit to look
23 like?

24 A. We submitted the permit application, yes.

25 Q. But did you submit any sort of draft as to how

1 you perceived how that permit should look?

2 A. I don't recall.

3 Q. Would you do something like that? Would you
4 draft a draft permit to reflect how you would receive
5 how that permit should look?

6 A. Would we ever?

7 Q. Yes.

8 A. We could.

9 Q. Would you?

10 A. Would I --

11 Q. Would you have done something like that? Would
12 you have submitted a draft --

13 A. I don't know that we did.

14 Q. I'm not asking if you did. I said would you, is
15 this something you would do. Is the word confusing?

16 A. I'm trying to figure out in the context --

17 MR. DAUSCH: I'm going to object to the
18 hypothetical. I'm not sure what scenario we are talking
19 about.

20 HEARING OFFICER SLATER: Mr. Willis, could you
21 rephrase the question, please?

22 BY MR. WILLIS:

23 Q. Did you recommend the emission limits that were
24 found in the SO2, the permit?

25 A. Yes, we worked with the county on their model,

1 A. Yes.

2 Q. Did you make any specific requests as to the
3 application of the source testing manual?

4 A. We talked to the county on numerous occasions
5 about how that standard, that guidance or manual, is
6 applied at our facility, yes.

7 Q. And you referred to it as "guidance." Is that
8 how you see it?

9 A. Well, it's not a regulation and it's a manual.
10 So based on where we are, I'm assuming it's a guidance.
11 It's not a regulation.

12 Q. And to the best of your knowledge, U.S. Steel
13 must comply with Article 21?

14 A. Yes.

15 Q. It does not comply with the source testing
16 manual?

17 A. It --

18 Q. Is there any compliance on U.S. Steel's part with
19 respect to the source testing manual?

20 A. No.

21 Q. Did ACHD ever concede to any of U.S. Steel's
22 requests regarding the source testing manual?

23 A. We had discussions about how it will be
24 interpreted and applied, yes.

25 Q. That wasn't my question. My question was, did

1 and the emission limits were based on the modeling.

2 Q. Is the MACT a health-based standard?

3 A. The MACT is a technology and a health-based
4 standard, yes.

5 Q. The enforcement order that's on appeal currently,
6 does it address federal violations?

7 A. No, it does not.

8 Q. Does it have Article 21 violations?

9 A. Yes, it does.

10 Q. Method 203, does that apply to the federal
11 standards?

12 A. Just for clarification, are you talking about the
13 NESHAP standards, or what federal standards are you
14 referring to?

15 Q. Any federal standards.

16 A. It could.

17 Q. What federal standards could it apply to?

18 A. Any federally enforceable limits that require
19 that type of reading.

20 Q. Okay. The source testing manual, is that a
21 regulation?

22 A. No.

23 Q. Do you recall U.S. Steel ever approaching ACHD
24 with respect to the application of the source testing
25 manual?

1 you -- did the ACHD ever concede to your request?

2 A. I believe we reached an agreement on how it would
3 be implemented, yes.

4 Q. You made a request and the ACHD agreed to comply
5 with that request?

6 A. I am not sure of a specific instance that that
7 occurred.

8 Q. To your knowledge, are inspectors allowed to take
9 photos at the facility?

10 A. To my knowledge, U.S. Steel's position is that we
11 prohibit people from taking photos.

12 Q. And why is that?

13 A. Because it's our policy established by the
14 corporation, and we have proprietary information on
15 site.

16 Q. Okay. If you could turn to Exhibit 38, please,
17 and page 2 specifically. Are you there?

18 A. Yes.

19 Q. Could you read the third paragraph, the first
20 sentence of that third paragraph?

21 A. In the introduction?

22 Q. Yes, please, where it says, "State implementation
23 plan..."

24 A. Okay. "State implementation plan (SIP) also
25 typically includes several types of opacity regulation,

1 which in some cases may differ from the federal opacity
2 standards in terms of opacity limit, the measurement
3 method, or test procedures or data evaluation
4 techniques."

5 Q. And if you go to the next paragraph, could you
6 read that first sentence, please?

7 A. The one starting with, "Federal opacity..."?

8 Q. Yes.

9 A. Okay. "Federal opacity standards in most SIP
10 opacity regulations are independently enforceable; i.e.,
11 sources may be cited for opacity violations even when
12 it's in compliance with the particulate math standard."

13 Q. Okay. Could you go to page 11 of the same
14 document? At the bottom of that page, it says
15 "Video..." Could you read those first two sentences?

16 A. Yep. "Video is an excellent tool for opacity
17 work." I'm sorry, the first two sentences?

18 Q. Yes, please.

19 A. "Because of the wider tonal range of video, it
20 does a better job of reproducing actual appearances of
21 the plume than photography."

22 Q. You also prohibit videos on site?

23 A. We do.

24 Q. For trade secret purposes?

25 A. Yes, and safety; and also recently, home

1 A. No.

2 Q. You mentioned something about the residual risk
3 assessment, correct?

4 A. Yes.

5 Q. Is the basis of the residual risk based on the
6 evaluation of any new control technology or practices
7 since the MACT was first promulgated?

8 A. Residual risk?

9 Q. Yes, ma'am.

10 A. No, it's based on risk, not technology.

11 Q. Do the NESHAPs protect the MACT?

12 A. No, not directly.

13 Q. Okay. I think I heard you say that fugitives are
14 not leaving the property. Are we talking about fugitive
15 emissions?

16 A. I was referring to the context in which I said
17 related fugitives to property boundary. I was talking
18 about fugitive emissions, yes.

19 Q. Do you have any modeling for that to demonstrate
20 that?

21 A. For clarification, the question I was addressing
22 was opacity -- or emissions out of stack versus
23 emissions from fugitives and the distinction between the
24 dispersion from a tall stack versus fugitives which are
25 closer to the ground.

1 security, homeland security.

2 Q. Okay. If you go to the first page of this
3 document when this was promulgated -- or when was this
4 published, not promulgated. When was this published?

5 A. It was in December of 1993.

6 Q. Okay, thank you. Are CCMS a perfect surrogate
7 for a facility's environmental performance?

8 A. It depends on what sources are installed.

9 Q. Well, with respect to the stacks at U.S. Steel
10 Clairton Coke Works, are they a perfect surrogate for
11 the facility's environmental performance?

12 A. No, nothing is perfect.

13 Q. Are there aspects of the plant's environmental
14 performance not reflected in the CCMS?

15 A. Yes.

16 Q. Would fugitives be one of those things?

17 A. That's correct.

18 Q. And with the enforcement order that's currently
19 on appeal, does it address the CCMS in terms of a
20 violation?

21 A. No.

22 Q. Is there a penalty assessed for exceedances at
23 the CCMS?

24 A. In the enforcement order?

25 Q. Yes.

1 Q. Correct, and I was asking about fugitives.

2 A. Yes.

3 Q. You're saying that fugitives did not leave the
4 property?

5 A. No, I did not say they did not leave the
6 property. I said there is more of a chance for
7 emissions from a stack high in the air to leave the
8 property than there would be from fugitives closer to
9 the ground.

10 Q. I see. But you would concede that fugitives do
11 leave the property?

12 A. They can.

13 Q. Do they?

14 A. On occasion, yes.

15 Q. What occasions would those be?

16 A. The most likely occasion would be on a dry day
17 would be dust which would be from the roadways or from a
18 coal pile similar to a parking lot or a storage pile.

19 If you have high winds, those emissions or
20 fugitives can cross the property boundary.

21 Q. But fugitives from the batteries do not?

22 A. I did not say they did not. I said that -- I
23 gave an example of what fugitives, fugitives from the
24 battery, could, under other circumstances, cross the
25 property boundary.

1 Q. Okay. With respect to the fugitives from a
2 battery, what are the conditions for them to leave the
3 property?

4 A. I can't say for sure. There would be multiple
5 things that would be impacting whether or not they could
6 leave. It would be wind direct. It would be type of
7 emissions, source of emissions, those types of criteria.

8 Q. That sounds fairly random. Is there anything
9 that would keep it on the property?

10 A. The battery fugitive emissions?

11 Q. Yeah.

12 A. Yeah, if conditions are such that it would --
13 they would dissipate before they hit the property
14 boundary, they would stay within the property boundary.

15 Q. Have you done any studies to determine that?

16 A. We've done modeling for the various parameters
17 for the PM and SO2.

18 Q. With respect to the consent judgment that you
19 were involved with, you read that document before it was
20 executed by your company, correct?

21 A. Yes.

22 Q. It's very similar to prior consent orders,
23 consent judgments in the past with respect to some
24 boilerplate language; is that fair?

25 A. I can't say that I've compared them, but there

1 A. Not that I recall, no.

2 Q. Okay. Was Clairton ever evaluated for residual
3 risk?

4 A. It was part of the initial MACT, and then they
5 were -- they -- we took the LAER limit. So it wasn't
6 directly evaluated for risk. They did the modeling
7 based on coke facilities in general.

8 Q. So it was not a part of that assessment?

9 A. No.

10 Q. Okay. How can you evaluate the risk with respect
11 to the largest coke plant in North America without a
12 residual risk evaluation?

13 A. I'm sorry?

14 Q. If you weren't a part of that evaluation, how can
15 you say -- how can you evaluate its risk?

16 A. The residual risk that is required by EPA to
17 protect health goes through a process of looking at the
18 various sources and determining how they impact health.

19 So the -- they looked at it individually based on
20 doors, lids, oftakes. So there's a lot of -- when you
21 do the risk, it's a procedure that they use.

22 Q. But you weren't a part of that risk, you just
23 testified to that?

24 A. We were involved in the residual risk evaluation;
25 but because our facilities weren't the MACT track, we

1 were a lot of conditions that are most likely
2 boilerplate language, yes.

3 Q. Let's turn to that really quickly. I believe
4 that's on the second section of Exhibit 11.

5 HEARING OFFICER SLATER: Exhibit ?

6 MR. WILLIS: 1.

7 HEARING OFFICER SLATER: Oh, Exhibit 1.

8 BY MR. WILLIS:

9 Q. I will direct you to page 19 of 24. Could you
10 read B, the first sentence under "Dispute
11 resolutions...?"

12 A. Okay. On page 19, paragraph B, under "Dispute
13 resolutions..." right?

14 Q. Correct.

15 A. Okay. "If, in one party's opinion, there is a
16 dispute between the parties with respect to
17 implementation of this consent judgment or the
18 implementation of any provision in this consent
19 judgment, the parties may send a written notice of
20 dispute to the other party outlining the nature of the
21 dispute and requesting informal negotiations to resolve
22 the dispute."

23 Q. Has any notice of a dispute ever been transmitted
24 from U.S. Steel to ACHD with respect to this consent
25 judgment?

1 had already taken the title limits, they weren't
2 specifically looking at us. But we were involved in the
3 discussions, yes.

4 Q. But they were not specifically looking at you?

5 A. No.

6 Q. Okay. With respect to stack emissions, do they
7 have a certain odor that you could discern from the
8 batteries, the battery stacks?

9 A. I don't know that there's a specific odor.

10 Q. Is there an odor with respect to fugitives from a
11 battery?

12 A. There can be.

13 Q. How would that smell be described?

14 A. It depends what smell it is. I don't know 'cause
15 I don't -- it can vary depending on people what it
16 smells like.

17 Q. Have you ever heard of descriptions for the
18 smells coming from fugitives?

19 A. Yes.

20 Q. And what were those descriptions?

21 A. Very similar to sewage treatment plants, which is
22 the rotten egg smell.

23 Q. Okay. Do you know what raw coke oven gas smells
24 like?

25 A. Not personally, no.

1 Q. Have you heard of descriptions of what raw coke
2 oven gas smells like?

3 A. Yes.

4 Q. What would that be?

5 A. Similar to the sewage treatment plant. It would
6 be a raw -- I mean, it was a -- it's a rotten egg smell.

7 Q. You say similar to, but it actually would be
8 attributable to what, that smell? What's your --

9 A. I think smells are a very personal item, and so
10 what could smell like a rotten egg to one person may not
11 to others. So it just could be associated with the
12 rotten egg smell, but it might depend on the individual.

13 Q. Well, under that analysis, two people could have
14 a different interpretation of what the color blue is;
15 would that be correct?

16 A. Yes, and actually that is, in fact, true.
17 Depending on whether or not you have color blindness or
18 not, there are interpretations of what the color blue
19 could be.

20 Q. But if you don't have color blindness, even
21 between two people, they could say they are two
22 different things?

23 A. One could be turquoise, one could be dark blue,
24 light blue, navy blue. Yes, blue can be different
25 shades.

1 Q. Thank you. Notwithstanding the consent judgment,
2 U.S. Steel has received quarterly penalties subsequent
3 to the entry of that consent judgment?

4 A. Yes, they have.

5 Q. Has U.S. Steel appealed any of those prior to the
6 one currently on appeal?

7 A. Okay, I just want to make sure. Can you repeat
8 one more time?

9 Q. Sure. I believe it would be the second quarter
10 of 2016 and the third quarter of 2017. Has U.S. Steel
11 appealed any of the quarterly penalties attributable to
12 the Clairton Coke Works?

13 A. I don't recall, no.

14 Q. With respect to the -- I may have asked this, but
15 I want some clarity on this. With respect to the SIP
16 process, specifically with the SO2 SIP, does that SIP
17 take into consideration compliance with the regulation,
18 Article 21?

19 A. Does the SIP process -- not the SIP process, no.

20 Q. Does it take into consideration violations with
21 respect to Article 21?

22 A. The SIP process does not.

23 Q. So if the EPA determines that that SIP is
24 appropriate and is going to be sufficient to bring the
25 county into attainment, it does not consider the

1 Q. I see. You mentioned that you thought 98 percent
2 compliance was a good number?

3 A. I think it's very good, yes.

4 Q. And you made a metaphor, I believe, between your
5 daughter's grades?

6 A. Yes.

7 Q. Wouldn't you agree there is a substantial
8 difference between a grade and the emission of toxics?

9 A. One is a grade on a test and one is a percentage
10 on toxics. Yes, they are different.

11 Q. And the consequences are vastly different?

12 A. Yes, depending on your perspective, of course.

13 Q. Is there a perspective where a grade is more
14 critical than an exposure to a toxic --

15 A. No, public health is very critical. I'm just
16 saying both are very important depending on your
17 perspective.

18 Q. Would you agree one is more important than the
19 other?

20 A. Public health is very important, yes.

21 Q. That's not my question.

22 A. Yes.

23 Q. Is one more important than the other?

24 A. Public health can be -- is more important than a
25 grade on a test.

1 violations which would occur subsequent to that
2 decision?

3 A. If EPA approves the SIP, they would determine
4 compliance within that MACT by the monitored data. Does
5 that answer your question?

6 Q. No. My question is, does it take into
7 consideration violations to Article 21?

8 A. US EPA with attainment and the standard, no.

9 Q. Is it possible for Allegheny County -- let's
10 presume for a moment that the SIP is accepted, that it
11 is accepted, and fortunately, Allegheny County comes
12 into attainment with that standard and similarly with
13 the PM2.5 standard. Is it possible to lose that
14 designation?

15 A. Yes, it is possible.

16 Q. So it's possible to go out of attainment?

17 A. Yes.

18 Q. Okay. And that would be because we would not be
19 able to maintain the standards or those limits that were
20 established in that SIP?

21 A. To go out of attainment with the SIP would mean
22 that the ambient air monitors exceed the limit within
23 the prescribed timeframes under the federal rules.

24 Q. Okay. Turn to Document 50 that you have here,
25 Exhibit 50, please. On that front page, there's a line

1 at the bottom that says "issued by" and "prepared by,"
 2 underneath there's the name of Joann Truchan, PE, and
 3 prepared by Hafeez Ajenifuja (phonetic,) I apologize.
 4 MR. DAUSCH: It's on the docket.
 5 MR. WILLIS: It's on the docket.
 6 BY MR. WILLIS:
 7 Q. Is that signed?
 8 A. Is the --
 9 Q. Yes.
 10 A. Is the document signed? No.
 11 Q. Okay. Would you consider this the final version
 12 of that permit?
 13 A. Yes.
 14 Q. Even though it's not executed?
 15 A. I consider it to be. I --
 16 Q. Do you know if it is?
 17 A. No, I don't know.
 18 Q. To your understanding, a fully issued permit
 19 would be signed by the chief of engineering and the
 20 engineer that actually put together the document?
 21 A. Yes.
 22 Q. So it's possible that this is a draft?
 23 A. Yes.
 24 Q. Okay. Is there a test method that can determine
 25 fugitive emissions for purposes of establishing an

1 emissions rate?
 2 A. Okay, one more time.
 3 Q. Is there a test method that can establish the
 4 emissions rate for the fugitive emissions?
 5 A. Establish an emission rate?
 6 Q. Yes.
 7 A. A test method, not that I'm aware of, no.
 8 Q. Okay. Is that why there's no emissions rate for
 9 fugitive emissions in the permit, to your knowledge?
 10 A. I don't know.
 11 Q. You don't know?
 12 A. No, I don't know if that's why there isn't an
 13 emission rate for fugitives.
 14 Q. But you noted there was none in the permit, is
 15 that correct, in the Title V permit?
 16 A. No, I don't believe I said that.
 17 Q. You don't know or you don't recall?
 18 A. No, I don't believe I said that.
 19 MR. WILLIS: I have no further questions.
 20 HEARING OFFICER SLATER: Mr. Dausch, any
 21 redirect?
 22 REDIRECT EXAMINATION
 23 BY MR. DAUSCH:
 24 Q. Do you recall the questions you were asked about
 25 smells?

1 A. Yes.
 2 Q. And you referenced smells from a sewage treatment
 3 plant?
 4 A. Yes.
 5 Q. Is there a sewage treatment plant near the
 6 Clairton plant?
 7 A. Yes, right across the street from the facility.
 8 MR. DAUSCH: That's all I have.
 9 HEARING OFFICER SLATER: Mr. Willis?
 10 RECROSS-EXAMINATION
 11 BY MR. WILLIS:
 12 Q. With respect to that sewage treatment plant, do
 13 you know the size of that facility?
 14 A. I don't know the specific size, no.
 15 Q. Is it smaller than Clairton?
 16 A. Physically, yes.
 17 MR. WILLIS: That's all I have.
 18 HEARING OFFICER SLATER: Anything else, Mr.
 19 Dausch?
 20 MR. DAUSCH: No nothing further.
 21 HEARING OFFICER SLATER: All right. Ms.
 22 Woodwell, you may step down.
 23 Mr. Dausch, you may call your next witness.
 24 MR. DAUSCH: Well, I have good news for
 25 everybody, because we rest.

1 HEARING OFFICER SLATER: All right.
 2 MR. DAUSCH: And I think we have all of the
 3 exhibits for the record up with you. We have a copy to
 4 compare if there are any questions, and they are all --
 5 we should all be on the same page, and I think it's all
 6 been recorded in the transcript.
 7 MR. WILLIS: Correct.
 8 HEARING OFFICER SLATER: Did you guys want to be
 9 on the record for this or no?
 10 MR. WILLIS: I did. I did want to comment on the
 11 record that I will go through each of these documents
 12 that we've put forward as an exhibit and correct the two
 13 page -- the two-sided dilemma, because it's critical
 14 that the evidence be correct and not misrepresent our
 15 position or to attempt to --
 16 MR. DAUSCH: And I know there were some documents
 17 that were not in any way related to this case. I'm sure
 18 we want to get those out of the record, just so there is
 19 no confusion.
 20 HEARING OFFICER SLATER: Okay, that works for me.
 21 MR. DAUSCH: And, Mr. Slater, I know it's your
 22 preference usually at the end of the hearing to talk
 23 about post-hearing briefing. Do you like to do that off
 24 the record?
 25 HEARING OFFICER SLATER: In general, yeah. If

1 that is --

2 MR. DAUSCH: Would you prefer to do that now?

3 HEARING OFFICER SLATER: Yeah, we might as well
4 at least touch base on it now. We are off the record.

5

6 (The hearing terminated at 2:47 p.m.)

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CERTIFICATE OF REPORTER

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COMMONWEALTH OF PENNSYLVANIA :

3

COUNTY OF ALLEGHENY :

4

5

6

I, Heidi R. Hawk, a Notary Public duly
commissioned and qualified in and for the said
Commonwealth and County, do hereby certify that pursuant
to the notice, the within named persons were sworn by me
to testify to the truth and nothing but the truth; that
the testimony was reduced to writing under my
supervision; that this transcript is a true record of
the testimony given by the witnesses.

10

I further certify that I am neither attorney nor
counsel for, nor related to or employed by any of the
parties to the action in which this hearing was taken;
and further, that I am not a relative or employee of any
attorney or counsel employed by the parties or
financially interested in this action.

13

In testimony whereof, I have hereunto subscribed
my hand and affixed my seal of office this December 26,
2018.

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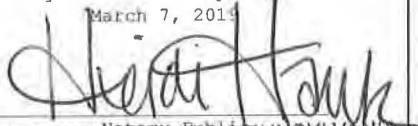
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My Commission Expires
March 7, 2019



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

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