

BEFORE THE ENVIRONMENTAL APPEALS BOARD
 U.S. ENVIRONMENTAL PROTECTION AGENCY
 WASHINGTON, D.C.

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ENVIRONMENTAL APPEALS BOARD

ORAL ARGUMENT

IN RE:

PENNECO ENVIRONMENTAL
 SOLUTIONS, LLC

Permit No. PAS2D701BALL

:
 :
 :
 : UIC Appeal No.
 : 18-02
 :
 :
 :

Thursday,
 July 26, 2018

Administrative Courtroom
 Room 1152
 EPA East Building
 1201 Constitution Avenue, NW
 Washington, DC

The above-entitled matter came on for
 hearing, pursuant to notice, at 10:33 a.m.

BEFORE:

THE HONORABLE AARON AVILA
 Environmental Appeals Judge

THE HONORABLE MARY KAY LYNCH
 Environmental Appeals Judge

THE HONORABLE MARY BETH WARD
 Environmental Appeals Judge

ORIGINAL

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ALSO PRESENT:

Eurika Durr, Clerk of the Board

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P-R-O-C-E-E-D-I-N-G-S

10:33 a.m.

MS. DURR: All rise.

The Environmental Appeals Board of the United States Environmental Protection Agency is now in session for oral argument in re Penneco Environmental Solutions, LLC, Permit No. PAS2D701BALL, UIC Appeal No. 18-02, the Honorable Judges, Mary Beth Ward, Aaron Avila, Mary Kay Lynch, presiding.

Please turn off all cell phones, and no recording device is allowed.

Please be seated.

JUDGE AVILA: Good morning, everyone.

Before we proceed, I want to confirm that those participating by videoconference are able to hear what's taking place, here and see what's taking place here in D.C. Is everything working fine?

MR. DICE: Good morning, Your Honor.

Yes, everything is working here.

JUDGE AVILA: All right. Excellent.

1 Great.

2 So, the Environmental Appeals Board is
3 hearing oral argument today on the Borough of
4 Plum's Petition for Review of an underground
5 injection control permit that EPA Region III
6 issued to Penneco Environmental Solutions, LLC.
7 Today's argument will proceed as outlined in the
8 Board's June 8th Order. We'll hear, first, from
9 the Petitioner, the Borough; then, EPA Region
10 III, and then, finally, from the permittee
11 Penneco.

12 The Borough, you can reserve up to
13 five minutes of your time for rebuttal.

14 On behalf of the Board, I'd like to
15 thank everyone for their time and effort that
16 you've expended in connection with the briefing
17 on the petition and preparing for and
18 participating in this oral argument.

19 Oral argument is an important
20 opportunity for you to explain your contentions
21 and the important issues in this case to the
22 Board. It is also an opportunity for the judges

1 to explore with you the contours of your
2 arguments and the issues in this case. You
3 should assume that we have read the briefs and
4 the other submissions, and therefore, are likely
5 to ask questions that will assist us in our
6 deliberations. You should not assume that the
7 judges have made up their minds about any of the
8 issues in this case. But, instead, we are using
9 this as an opportunity to listen, to help to
10 understand your position, and to probe the legal
11 and factual support on which the Region based its
12 permit decision.

13 There's no photography, filming, or
14 recording of any kind of allowed. We do have a
15 court reporter transcribing the oral argument,
16 and a transcript of the oral argument will be
17 posted to the docket in this matter.

18 With that, before we begin the oral
19 argument, I would like all the parties to
20 introduce themselves and anyone who is
21 accompanying them to the panel. So, let's start
22 with the Petitioner, then EPA Region III, and

1 finally, the permittee.

2 MR. DICE: Dayne Dice, on behalf of
3 the Petitioner, the Borough of Plum.

4 MR. FRANKENTHALER: Douglas
5 Frankenthaler, Your Honor, on behalf of the
6 Office of Regional Counsel, Philadelphia.

7 MS. PARIKH: Pooja Parikh from the
8 General Counsel's Office, EPA.

9 MS. MOSITES: Jean Mosites, here on
10 behalf of Penneco Environmental Solutions.

11 JUDGE AVILA: All right. Thank you.

12 So, did you want to reserve time for
13 rebuttal, Counsel?

14 MR. DICE: I would not.

15 JUDGE AVILA: Okay. So, you have, I
16 think, 25 minutes then.

17 So, with that, let's proceed. Go
18 ahead.

19 STATEMENT ON BEHALF OF PETITIONER

20 BOROUGH OF PLUM

21 MR. DICE: Good morning again. My
22 name is Dayne Dice, on behalf of the Petitioner,

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1 the Borough of Plum.

2 This appeal stems from a Class II
3 injection well permit issued to Penneco
4 Environmental Solutions by Region III of the EPA,
5 with the objective of the disposal of brine from
6 the operation of oil and gas wells; location of
7 the wells within the Borough of Plum, County of
8 Allegheny, Commonwealth of Pennsylvania.

9 Standing is appropriate, as both the
10 former Mayor of Plum Borough, Richard Hrivnak,
11 and Councilman David Odom, both participated in
12 EPA's public hearing in regards to the proposed
13 injection well. The issues are further preserved
14 in the Borough's petition, as both comments 10
15 and 11 deal with the Borough's specific argument
16 of injection wells and their potential to
17 increase seismic activity, and the potential
18 impact this seismic activity could have on
19 underground sources of drinking water, USDWs.

20 It's the position of the Borough that
21 this potential increase in seismic activity is an
22 important policy consideration that warrants

1 review by this Appeals Board.

2 JUDGE AVILA: Can I interrupt you
3 briefly? On the question of issue preservation,
4 you attached four articles to your petition.
5 Which of those were submitted during the public
6 comment process, if any of them? I'm having a
7 hard time. Heads up, I'm going to ask everyone
8 this because I find the record a little confusing
9 on this.

10 MR. DICE: I believe the only article
11 that was submitted was the ProPublica article.
12 My position would have to be that the rest of the
13 articles are simply brought up to expound upon
14 comments 10 and 11 and Region III's response to
15 comments; and further, that this Appeals Board
16 could take judicial notice of such articles, if
17 they are so inclined.

18 Again, the Borough's position would be
19 that, per the Safe Drinking Water Act and the
20 EPA's --

21 JUDGE WARD: Counsel, if I could ask
22 you a question? So, in terms of taking into

1 account the three articles that were not
2 submitted during the public comment period, do
3 you have any Board precedent you could cite to us
4 where we have considered such materials?

5 MR. DICE: Yes. In the Stonehaven
6 case, there is a footnote that says, and I'll
7 quote, "The Board could take official notice of
8 these articles to show what information is in the
9 public realm." This cites to a Riveria-Cruz v.
10 Immigration and Naturalization Service case. And
11 that is also in the Stonehaven administrative
12 decision.

13 Again, the main argument by the
14 Borough is that this seismic activity could
15 affect USDWs. And in regard to the Congressional
16 Research article cited by the Borough, I'll
17 quote. "Seismicity has the potential to affect
18 drinking water quality through various means;
19 e.g., by damaging the integrity of a well or
20 creating new fractures and pathways for fluids to
21 reach groundwater."

22 The point of the proposed seismic

1 monitoring by the Borough would be to catch any
2 seismic activity prior to a mechanical or
3 technical failure by Penneco's proposal. And
4 although Region III cites in response to comments
5 to a lack of fault lines or fractures near
6 Penneco's proposed injection site, along with
7 volume pressure controls, the Congressional
8 Research article again states, and I quote, "The
9 relationship between earthquake activity, the
10 timing of injection, the amount and rate of waste
11 fluid injected, and other factors are still
12 uncertain and are current research topics."

13 With the citing of the article from
14 the University of Pennsylvania by John Quigley
15 noting that, "The increase in seismic activity in
16 Oklahoma, Ohio, Texas, and Colorado showed that
17 the known presence of fault lines is not
18 dispositive in regards to the increased potential
19 seismic activity."

20 And the EPA, or I should say Region
21 III's response to comments even states, "EPA
22 recognized that there is strong evidence that

1 supports the underground injection of fluids as
2 the trigger that led to these seismic events. In
3 some cases, these earthquakes occurred in
4 locations where there were no known faults."

5 I'll also note that --

6 JUDGE LYNCH: Counsel, may I pause you
7 for a moment?

8 You reference the CRS article and you
9 quote the beginning of that article. But, in the
10 conclusion in that article, on page 20, it says
11 that "The knowledge is rapidly evolving and that
12 the vast majority of deep injection wells do not
13 appear to be associated with seismic events."

14 MR. DICE: That is correct, but,
15 again, the Borough's position would be that the
16 monitoring of these wells would simply allow all
17 parties to be aware of any potential seismic
18 activity before any mechanical failure would even
19 have a chance to occur. Again, the EPA
20 recognized that these earthquakes have occurred
21 where there are no known faults in certain
22 instances.

1 And I'll also note that, even though
2 the proposed well here is a Class II injection
3 well, Class I injection wells do have provisions
4 whereby seismic monitoring can be ordered by the
5 EPA Director. And it would be the Borough's
6 position that this same level of protection could
7 be extended to a Class II injection well and that
8 this is an issue that warrants review by this
9 Appeals Board.

10 JUDGE LYNCH: Well, perhaps I can
11 pause you.

12 Both Penneco and the Region point to
13 an extensive seismic monitoring system in
14 Pennsylvania. Why do we need more seismic
15 monitors than what already exist in Pennsylvania?

16 MR. DICE: Yes, Pennsylvania does have
17 an extensive system of seismic monitoring
18 throughout the State, but none of these would be
19 site-specific to Penneco's proposed injection
20 well. And again, looking at the controls that
21 would provide the greatest amount of protection
22 to the Borough, a site-specific seismic

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1 monitoring system would undoubtedly catch any
2 seismic activity, as opposed to potentially,
3 which is what the State system would do.

4 And I'll note, too, that the --

5 JUDGE LYNCH: So, if there was seismic
6 activity shown, what are you proposing?

7 MR. DICE: This is put forth in the
8 article cited by John Quigley whereby a site-
9 specific seismometer --

10 JUDGE LYNCH: Which is not in the
11 administrative record before us, correct?

12 MR. DICE: That is correct. But the
13 position would be that a site-specific
14 seismometer could be installed which would
15 directly look at this specific injection well.
16 That information would, then, be given to
17 Penneco, the Commonwealth, and the Petitioner,
18 which would allow all parties to be aware of any
19 potential seismic activity.

20 Again, citing to the Congressional
21 Research article, there was even a work group
22 specifically tasked by the EPA to look into Class

1 II disposal wells. Again, the proposed well is a
2 Class II disposal well. And it was specifically
3 found that these Class II disposal wells could
4 cause injected fluids to move outside the
5 containment zone and endanger drinking water
6 sources. The report specifically found that USDW
7 contamination could result from fault-inducing
8 seismic events or contamination from earthquake-
9 damaged surface sources.

10 JUDGE LYNCH: Counsel? Counsel?

11 MR. DICE: Yes?

12 JUDGE LYNCH: Is the risk of seismic
13 activity alone, is it your position that just the
14 existence of the risk precludes permitting of
15 this well?

16 MR. DICE: Yes, the existence of the
17 risk and the unknowns that are documented in the
18 scientific articles cited, it would be the
19 Borough's position that that would dictate
20 remanding the permit to look into more seismic
21 monitoring of this specific proposed injection
22 well along --

1 JUDGE LYNCH: Counsel, what degree of
2 certainty would you expect the EPA to have before
3 issuing such a permit? How much information
4 would they need to say it's enough?

5 MR. DICE: Well, in this specific
6 case, considering the unknowns, it would be
7 difficult to issue a permit without site-specific
8 seismic monitoring, as put forth by the John
9 Quigley, University of Pennsylvania article. The
10 only way to --

11 JUDGE WARD: Counsel? Counsel, I'm
12 sorry, if I could interject? I think the record,
13 at least reading the response to comments at
14 page, I believe it's page 7, it documents that
15 the United States Geological Survey has not
16 recorded any seismic activity in Allegheny
17 County; and further, there hasn't been any
18 recorded seismic activity for some time in this
19 area.

20 So, in the absence of any seismic
21 activity, as well as the fact that there's an
22 existing network that monitors seismic activity,

1 and I think Penneco suggested there was one
2 monitor fairly close to this well, why is more
3 needed?

4 MR. DICE: Again, in response to
5 comments from the EPA -- well, I'll begin by
6 stating, as discussed, even in EPA's response to
7 comments, there have been seismic activity in
8 areas where there were no known faults; there
9 were no known fractures, and there was no prior
10 seismic activity in other states, such as
11 Oklahoma, Ohio, Texas, and Colorado.

12 In regards to your question of why
13 more is necessary, it would simply seem to be, in
14 regards to the John Quigley article, that there
15 is nothing more protective of the Borough than a
16 site-specific seismometer for this specific Class
17 II injection well. And that is where the
18 Borough's specific request would be a remand to
19 the Region III of the EPA to develop site-
20 specific seismic monitoring.

21 JUDGE AVILA: So, your petition is
22 quite clear in its request for a seismic

1 monitoring at this well site. Did anyone raise
2 that during the public comment process? In
3 commenting on the draft permit, one of the new
4 permit terms should be a requirement that there
5 be monitoring of seismic activity?

6 MR. DICE: I don't believe that was
7 raised specifically, but the Mayor of Plum
8 Borough, among others, did raise the specific
9 issue of induced seismicity and the effect that
10 seismicity could have. And this would simply be
11 expounding upon, as commented by the former Mayor
12 of Plum Borough, Richard Hrivnak.

13 JUDGE AVILA: And just so I'm clear,
14 I get the concern over seismic activity. I take
15 it you're -- well, correct me if I'm wrong -- but
16 there's kind of two aspects to that. You're
17 concerned about failure of this well itself, I
18 take it, as well as the potential to introduce
19 new or exacerbate known faults? Is that right?

20 MR. DICE: Yes, Your Honor.

21 JUDGE AVILA: Is there anything, any
22 other concerns that I've missed?

1 MR. DICE: No, that outlines the
2 concerns of the Borough, Your Honor.

3 JUDGE LYNCH: Well, Counsel, what's
4 the point of the ProPublica article, which is the
5 only article that is in the record?

6 MR. DICE: The ProPublica article and
7 the University of Texas article were simply
8 included as preamble to show instances of Class
9 II injection wells failing and causing
10 contamination.

11 JUDGE LYNCH: So, are you opposed to
12 permitting Class II injection wells in your
13 Borough?

14 MR. DICE: I would not say
15 specifically opposed. I would simply say, as
16 outlined in the petition, there are concerns in
17 regards to seismic monitoring by the Borough.
18 Again --

19 JUDGE LYNCH: Well, on page 5 of your
20 brief, after you mention the ProPublica article,
21 you say, "The mere existence of Class II wells is
22 the issue." I mean, is that your objection here?

1 MR. DICE: I believe that the Borough,
2 certain people in the Borough during the public
3 comment period expressed that issue, that the
4 mere existence of Class II wells presents a
5 public safety hazard. That being said, myself,
6 in creating the petition, sought to find a more
7 specific remedy that would protect the Borough
8 from any potential issues with the well.

9 Region III's comments expounded
10 greatly on mechanical and technical issues that
11 would seem to protect the Borough, but the
12 potential seismicity seemed to simply be there
13 are no known faults; there are no known
14 fractures; we're going to control the injection
15 pressure, the amount of fluid, and therefore,
16 there will be no seismic activity. And the cited
17 scientific articles would seem to say that that's
18 not necessarily dispositive.

19 JUDGE LYNCH: So, if there was just
20 one more seismic monitor close to the well, then
21 you would not have any other objections? Is that
22 how I'm reading --

1 MR. DICE: Yes.

2 JUDGE LYNCH: -- your pleading?

3 MR. DICE: That is correct, Your
4 Honor.

5 JUDGE WARD: Counsel, in terms of
6 looking at the Region's analysis, and
7 specifically the response to comments at page 2,
8 they talk about a number of factors that they
9 considered in terms of the site-specific risk of
10 seismic activity. And you've cited articles
11 suggesting that there's always a risk of seismic
12 activity. Is there any article or anything in
13 the record that calls into question the framework
14 that the Region used to analyze site-specific
15 risk here?

16 MR. DICE: I don't believe so. I
17 believe the comments raised were more general in
18 nature. I believe several of the comments given
19 were given by more laymen individuals who did not
20 know with specificity the issue. And that is
21 where in my petition I simply sought to expound
22 upon these generalized concerns of seismicity and

1 how that could impact USDWs.

2 JUDGE WARD: So, assuming we could
3 consider the three additional articles that you
4 submitted, where in those articles do they call
5 -- do any of those articles call into question
6 EPA specific framework for analyzing site-
7 specific risk?

8 MR. DICE: I believe the John Quigley
9 article in its conclusion does begin to say -- it
10 cites to the fact that Pennsylvania has an
11 extensive seismic monitoring network. And again,
12 the conclusion in that article was that
13 developers install site-specific seismometers,
14 and that is from the John Quigley, University of
15 Pennsylvania article. That was their specific
16 conclusion.

17 JUDGE AVILA: I think maybe what my
18 colleague has asked -- so, they install this
19 seismic monitor on the well. Then, what? I
20 mean, so we know more. We get seismic
21 information, but what does that have to do with
22 the Safe Drinking Water Act Program and

1 protecting underground sources of drinking water?
2 I'm not seeing the connection.

3 MR. DICE: Well, if you read Region
4 III's response to comments, there are various
5 mechanical and technical safeguards in place, you
6 know, should a well fail. But there's nothing in
7 regards to seismicity. So, the monitoring would
8 allow Penneco, the Petitioner, and the DEP EPA to
9 be aware of even potential seismic activity that
10 could impact the mechanical integrity of this
11 well. The point would be awareness. That way,
12 measures could be taken before a seismic event
13 occurred.

14 JUDGE AVILA: Is there anything, I
15 mean, in the regulations that requires that kind
16 of monitoring and information-gathering? I
17 mean --

18 MR. DICE: Specific to Class II wells,
19 the only regulation would be the Safe Drinking
20 Water Act and the UIC controls which allow the
21 EPA to protect underground sources of drinking
22 water. Specifically, I don't believe there are

1 any in regards to Class II wells, but it was the
2 Petitioner's position that the safeguards that
3 could apply to Class I wells could be extended to
4 Class II wells, and this would at least warrant
5 review by this Appeals Board.

6 JUDGE WARD: Could I follow up on a
7 statement you made concerning the value of
8 monitoring; that if you monitor and detect
9 seismic activity, you could have done something
10 to prevent a breach of the well? Well, the
11 monitoring, there's nothing to be done beforehand
12 other than what perhaps they've done here. And
13 the monitoring will only tell you that there's
14 been a seismic event, correct? It won't tell you
15 that there will be a seismic event, correct? Or
16 is there something --

17 MR. DICE: Well, no, that would be
18 correct, Your Honor. The position would be
19 perhaps smaller seismic events could be noted,
20 and that could influence the well and the ongoing
21 use of the well, or the injection pressure, or
22 any of the various mechanical and technical

1 aspects of the well, should any event be noted by
2 a seismic monitor.

3 JUDGE AVILA: But -- excuse me. Go
4 ahead.

5 JUDGE WARD: I was going to say, the
6 Region, though, I think responds in part to that,
7 pointing to the construction of the injection
8 well with multiple strings of casing cemented in
9 place, protecting against the risk of breach,
10 citing industry standards and EPA's standards.
11 In terms of the Board's review of the Region's
12 decision, we review for clear error. What's
13 clearly erroneous about that assertion?

14 MR. DICE: My vision would be that all
15 of that is in regards to the mechanical and
16 technical aspects of the well. I have not cited
17 any clear error in regards to mechanical and
18 technical aspects of the well. It would be error
19 and warranting review that seismic activity has
20 simply been put off as it will not happen due to
21 the lack of presence of no faults or fractures,
22 and the limits placed on injection volume and

1 pressure, and things of that nature. So, the
2 error would be in the lack of attention paid to
3 the potential for seismic activity and the effect
4 this could have on the mechanical and technical
5 aspects of the well, even despite the safeguards
6 put in by Region III of the EPA.

7 JUDGE LYNCH: But doesn't the record
8 show that there is no seismic activity in
9 Allegheny County?

10 MR. DICE: The record would show that,
11 but, again, that is why I have attempted to cite
12 two scientific articles showing that in other
13 states there has been seismic activity where
14 there was no known seismic activity; there were
15 no known faults, and there were no known
16 fractures, and the potential for injection wells
17 to cause seismic activity in areas where there
18 has never been any before.

19 JUDGE LYNCH: And is there anything in
20 the record to show that in those other instances
21 it's impacted a USDW?

22 MR. DICE: I do not believe so. Only

1 scientific articles stating that the potential
2 for such exists. It mainly be the Congressional
3 Research article, but, again, I do not believe
4 that's in the record. I simply cited it, and the
5 Court would have to take judicial notice of it.

6 JUDGE AVILA: And I thought the
7 Region, on page 9 of the response to comments,
8 had addressed those other seismic events and
9 explained why the circumstances there were
10 different than the ones here. So, it seems like
11 the Region responded to that concern or
12 acknowledgment of other seismic events and
13 explained. So, what's wrong with the Region's
14 explanation as to why those aren't relevant here?

15 MR. DICE: Well, looking at the
16 Region's explanation, they would state that,
17 "Scientific evidence indicates that seismic
18 activity is most likely associated with the depth
19 of a well, the volume and rate of injection, and
20 injection pressure." The inherent issue with
21 that would be, again, that deals with the
22 specific technical aspects of the well, not the

1 uncertainty associated with seismic monitoring,
2 and, again, the lack of known faults, the lack of
3 seismic activity in Allegheny County, as cited by
4 the Congressional Research article, and the John
5 Quigley article, is not dispositive.

6 JUDGE WARD: So, in the John Quigley
7 article, did you refer to that as a scientific
8 article?

9 MR. DICE: Yes.

10 JUDGE WARD: So, could I ask a little
11 bit more about that? Because at least reading,
12 looking at the cover page, it was Mr. Quigley is
13 working for the Kleinman Center for Energy Policy
14 at the University of Pennsylvania. And I'm not
15 seeing anything here that identifies him as a
16 particular technical expert on these sorts of
17 issues and, rather, that this may be at least a
18 policy piece, not a scientific article.

19 MR. DICE: That could be possible,
20 but, again, even if I were to refer to it as a
21 policy piece, it would seem to be a policy
22 warranting review by this Appeals Board in

1 regards to greater seismic monitoring for this
2 potential well site.

3 JUDGE WARD: So, back to your citation
4 to the Stonehaven case and our considering this
5 document, it seems a little different perhaps
6 than what was at issue there. It's not
7 necessarily general background or information,
8 scientific information, that's in the public
9 realm, but, rather, offering a suggestion for
10 different conditions in a permit that EPA might
11 issue.

12 It seems that one might think the
13 latter category is the sort of thing that a
14 commenter should raise during the public comment
15 process, so that EPA can decide and respond to
16 whether that condition should be included or not.
17 And I take it no one raised that specific comment
18 or suggestion during the comment process,
19 correct?

20 MR. DICE: I believe that is correct.
21 It would simply -- I would be relying on the
22 footnote 11 in the Stonehaven case whereby this

1 Appeals Board is entitled to take official notice
2 of articles, and that this Court allows agencies
3 wide latitude in taking official notice.

4 JUDGE LYNCH: Counsel, is there
5 anything in the record to contradict the Region's
6 finding that the confining zone in this case is
7 free from known open faults or fractures within
8 the area of review for this permit?

9 MR. DICE: I do not believe there's
10 anything in the record to contradict that finding
11 by Region III.

12 JUDGE LYNCH: And that's the
13 determination that's required under the
14 applicable regulations, correct, 40 CFR 146.22?

15 MR. DICE: I believe that would be
16 correct, but, again, looking at what could
17 warrant review by this Appeals Board, that would
18 be the Borough's position, that seismic
19 monitoring does warrant review.

20 JUDGE AVILA: And you have two minutes
21 left. I don't think you can see the clock. So,
22 I just wanted to let you know that.

1 MR. DICE: I'll simply conclude by
2 saying, again, the Borough would request that
3 this permit be remanded to EPA for more thorough
4 evaluation of potential seismic implications and
5 to develop an appropriate seismic monitoring
6 system. If there are any other questions, I
7 would be happy to answer them. But, again, that
8 would be the Borough's final conclusion and
9 request for this Board.

10 Thank you.

11 JUDGE AVILA: Anything else?

12 All right. Thank you very much.

13 We'll hear now from the EPA Region
14 III.

15 STATEMENT ON BEHALF OF EPA REGION III

16 MR. FRANKENTHALER: Thank you. Once
17 again, I'm Douglas Frankenthaler. I'm an
18 attorney with the Office of Regional Counsel for
19 Region III of the Environmental Protection Agency
20 in Philadelphia.

21 I think it's important, first, to note
22 that the articles that were not included in the

1 record that were included in the petition we
2 believe should not be taken into consideration.
3 We think that the information, the articles
4 existed during the time of the public comments,
5 and the Board -- the Borough had ample
6 opportunity and ample time to include them in the
7 record, had they wanted to.

8 JUDGE LYNCH: Counsel, which article
9 or articles can we consider, in your view?

10 MR. FRANKENTHALER: Well, the
11 ProPublica article was in the administrative
12 record. The "Using Airborne Geophysics" article
13 was not in the administrative record. The
14 "Human-Induced Earthquakes from Deep Well
15 Injection," Congressional Research Service, was
16 not in the administrative record, nor was the
17 John Quigley "Managing Induced Seismicity"
18 article, was not in the administrative record.

19 JUDGE LYNCH: One question I had is,
20 in the Administrative Index, Item No. 34 says, is
21 titled, "Comments in Articles Submitted During
22 the Public Comment Period". The ProPublica

1 article is listed separately. I was not clear on
2 what that reference was in the Administrative
3 Record Index in Item No. 34 because it seemed to
4 reference other articles.

5 MR. FRANKENTHALER: I believe you're
6 referring to the article submitted during the
7 public comment period during the public hearing.

8 JUDGE LYNCH: It's just a title in the
9 Administrative Index caused us some confusion.

10 MR. FRANKENTHALER: I apologize for
11 that confusion. The ProPublica article is an
12 article that has been --

13 JUDGE LYNCH: That was listed
14 separately.

15 MR. FRANKENTHALER: It was listed
16 separately because it's been submitted previously
17 and it was in part of our general knowledge.

18 JUDGE LYNCH: So, your position is
19 ProPublica was the only article that was --

20 MR. FRANKENTHALER: That's part of the
21 administrative record that was submitted or that
22 was reviewed as part of the decision.

1 JUDGE LYNCH: So, is your position
2 that we can't consider Petitioner's -- those
3 other articles, or is your position that we can't
4 consider their arguments?

5 MR. FRANKENTHALER: Well, to the
6 extent that their arguments rely on those
7 articles, they should be discounted. To the
8 extent that their arguments could be said to rely
9 on any other information within the public,
10 within the administrative record, within the
11 record on review, then they can be considered.

12 JUDGE LYNCH: So, one of their main
13 objections is the risk posed by seismic activity.

14 MR. FRANKENTHALER: Correct.

15 JUDGE LYNCH: Is that an issue? Are
16 they precluded --

17 MR. FRANKENTHALER: No.

18 JUDGE LYNCH: -- from raising that
19 issue?

20 MR. FRANKENTHALER: They are not
21 precluded from raising that issue.

22 JUDGE WARD: Counsel, one thing I was

1 a little curious about is you've raised this
2 point here about the articles not being part of
3 the record; didn't include that point in your
4 brief.

5 MR. FRANKENTHALER: We did not, Your
6 Honor.

7 JUDGE WARD: Because?

8 MR. FRANKENTHALER: Because we didn't;
9 we probably should have.

10 JUDGE WARD: And why isn't Stonehaven
11 applicable here, to considering those articles,
12 as the Petitioner suggests?

13 MR. FRANKENTHALER: Well, I think it's
14 important to note that these articles were not
15 information that came about suddenly or recently.
16 The dates and timeframes of those articles means
17 that the Borough would have had access to them
18 during the public comment period, before the
19 public comment period, and would have had ample
20 opportunity to consider them and to provide them
21 to EPA. So that, to the extent that they add
22 anything new or different to our consideration,

1 we could have taken them into consideration.

2 However, I think something that is
3 important to recognize regardless, the issues,
4 the concerns raised in those articles are either
5 not germane to the seismicity issue that we are
6 considering or were otherwise considered by the
7 Region when it used its comprehensive Region III
8 framework for evaluating seismicity-related
9 concerns with Class II UIC permits in
10 Pennsylvania. The issues were considered. We
11 address them in our response-to-comments
12 document. We evaluated them comprehensively.

13 And even if the Board decides to take
14 judicial notice, I don't think that there's
15 anything in there that would indicate that our
16 evaluation was in any way inadequate or that the
17 ultimate regulatory obligation that the Region
18 has, that the agency has, which is to protect
19 underground sources of drinking water, was not
20 taken seriously into consideration vis-a-vis
21 seismicity concerns, and adequately and fully
22 addressed both in the conditions that the permit

1 include and, also, adequately and fully addressed
2 in the findings that the agency made to a strong
3 degree of scientific certainty that the
4 conditions, the prerequisites for induced
5 seismicity simply do not exist concerning this
6 proposed injection well.

7 JUDGE LYNCH: Counsel?

8 JUDGE AVILA: Go ahead.

9 JUDGE LYNCH: I had another procedural
10 question.

11 MR. FRANKENTHALER: Sure.

12 JUDGE LYNCH: In your brief, you say,
13 argue that the petition fails because the
14 Petitioner did not identify a specific permit
15 condition and clear error related to that permit
16 condition. But do they need to? Isn't it
17 sufficient under our regulations just to
18 challenge a key finding that the Region made
19 supporting the permit? I mean, and I'm
20 specifically referring to 40 CFR 124.19(a)(4)
21 where it says identify a condition or other
22 specific challenge to the permit decision.

1 MR. FRANKENTHALER: I think it would
2 be incumbent upon the Petitioner to do more than
3 just make a generalized statement repeating and
4 reiterating. As the Board found in the
5 Pennsylvania General Energy case and the Sammy-
6 Mar case, they need to do more than simply
7 reiterate and repackage comments and objections
8 that were raised during the public comment period
9 and that were addressed by the agency in the
10 response-to-comments document.

11 So, their lack of any specific
12 substantive challenge to any finding of fact and
13 the conclusion of law that the agency relied on
14 in making its determinations concerning
15 seismicity and making its determinations
16 concerning underground sources of drinking water
17 would preclude, I think, the Board from granting
18 the petition in this situation.

19 JUDGE AVILA: So, the petition is
20 quite clear, and I think as the Borough made
21 clear in its presentation, they want a monitor on
22 this well, a seismic monitor. Was that raised

1 during the public comment process, a request that
2 there be a permit condition requiring a seismic
3 monitor on this well?

4 MR. FRANKENTHALER: I'm not aware of
5 that being raised, Your Honor.

6 JUDGE AVILA: So, is that issue before
7 us? I didn't read your brief to argue it isn't,
8 but it seems like the way this would normally
9 work is that specific comment would be made. The
10 Region would respond to it in the response to
11 comments. And then, we would have a record to
12 review.

13 MR. FRANKENTHALER: The question of
14 seismicity is properly before the Board. It was
15 an issue that was raised by commenters and it was
16 preserved and can be before the Board. The
17 particular request was not made during the public
18 comment process. We didn't have an opportunity
19 to respond directly to it.

20 However, we feel that, based on the
21 thorough and comprehensive and systematic
22 evaluation that we did, consistent with the

1 evaluations that have been recognized by this
2 Board in the past, we fulfilled our obligation to
3 determine that the likelihood of seismic events
4 are very unlikely to a degree of scientific
5 certainty. And more importantly, that the
6 underground -- the protection of underground
7 sources of drinking water will be protected by
8 the other conditions that were included in the
9 permit conditions that were included,
10 specifically and in part to address and account
11 for seismicity issues that were identified during
12 our evaluation, whether it's the requirements for
13 monitoring, for ensuring that the pressure
14 limitations, among other requirements, are --

15 JUDGE WARD: Could I ask a question
16 about the construction of the well? And you
17 refer to the case and the cementing of the wells.
18 When was this well-constructed?

19 MR. FRANKENTHALER: Excuse me?

20 JUDGE WARD: When was the well
21 constructed?

22 MR. FRANKENTHALER: The well will be

1 constructed. This is for the proposed injection
2 well.

3 JUDGE WARD: But I thought it was part
4 of an existing -- there's an existing well,
5 correct, that it was used for production of oil
6 and gas?

7 MR. FRANKENTHALER: Yes, yes, there is
8 an existing well. I'm not exactly certain as to
9 the date or timeframe of what was already
10 constructed --

11 JUDGE WARD: And I thought that's --

12 MR. FRANKENTHALER: -- and what's
13 going to be --

14 JUDGE WARD: I thought that was the
15 well that was going to be used? In other words,
16 the existing well that was used for production of
17 oil and gas is now going to be used for the
18 injection of brine?

19 MR. FRANKENTHALER: Right, and the
20 permit includes conditions that the injection
21 well will have to meet concerning its --
22 concerning casing, concerning pressure,

1 concerning the actual construction requirements
2 and the --

3 JUDGE WARD: Do you know if it meets
4 those standards now or will more work need to be
5 done?

6 MR. FRANKENTHALER: I don't know
7 whether more needs to be done, but I know that,
8 before they will be able to operate, they'll have
9 to meet the standards that are in the permit.

10 JUDGE WARD: And are those EPA
11 standards or industry standards? I think you
12 reference in the response to comments --

13 MR. FRANKENTHALER: Well, they're
14 standards that the agency imposed, in part based
15 on regulations and in part based on its best
16 technical knowledge and understanding of the
17 issues related to protecting underground sources
18 of drinking water.

19 JUDGE LYNCH: So, Counsel, in terms of
20 the permit conditions, on page 23 of your brief,
21 you say that, if a seismic event were to occur
22 and monitors detected a change in pressure, the

1 well would automatically stop injecting. And in
2 your brief, you cite the permit condition, Part
3 2.C.2, but I think you must have meant Part
4 2.C.7. But, in that section in the permit -- or
5 what's the automatic -- you refer to it as an
6 automatic shutoff? Explain to us how that
7 actually works. Because in the permit it says,
8 "shall immediately cease injection". How does
9 that actually work?

10 MR. FRANKENTHALER: I will explain
11 that as best as I could understand it, with the
12 recognition that our technical staff that does
13 the permit review and the permit writing would be
14 able to explain it with a greater degree of
15 technical savvy.

16 But, if the well fails because of a
17 pressure gauge, though their pressure gauges are
18 going to monitor the pressure of the injection
19 location, and if the pressure gauge is triggered
20 because of some pressure-based failure which
21 could come from mechanical problems -- it could
22 come from, theoretically, seismic activity which

1 we think is incredibly unlikely to occur -- there
2 would be some mechanism that connects the gauge
3 to a shutoff system within the well operations.
4 The technical mechanism I'm not able to --

5 JUDGE AVILA: Maybe I'm asking for too
6 much detail in the permit. But is there anything
7 in the permit that says, "You shall have an
8 automatic shutoff device."?

9 MR. FRANKENTHALER: I don't recall
10 exactly.

11 JUDGE WARD: Actually, I think
12 condition C.8 refers to equipping the well with
13 an automatic shutoff device. But I guess the
14 question I have is it says it has to be equipped
15 with this device, which would be activated in the
16 event of a mechanical integrity failure. And I
17 think the question I have is, does it operate
18 just by virtue of the conditions trigger it or is
19 there some human that has to push a button to
20 trigger the device?

21 MR. FRANKENTHALER: I'm not 100-
22 percent certain. I believe it's mechanical and

1 automatic, but --

2 JUDGE WARD: Okay.

3 MR. FRANKENTHALER: -- but we could
4 find out and let the Board know.

5 JUDGE WARD: Maybe permittee's counsel
6 can answer that question for us.

7 MR. FRANKENTHALER: Maybe permittee's
8 counsel, yes.

9 JUDGE LYNCH: I have another
10 question --

11 MR. FRANKENTHALER: Sure.

12 JUDGE LYNCH: -- about a statement in
13 your brief. In the brief on page 9, you describe
14 Penneco's permit application as "including
15 location of a fault system in the area". But I
16 thought your position was that there were no
17 known faults or fractures. So, can you explain
18 that statement in your brief?

19 MR. FRANKENTHALER: Yes, Your Honor.
20 There are no known faults within the area of
21 injection. There is a system, a Precambrian
22 basement rock system, probably about, from my

1 understanding, it's 7,000 feet below the
2 injection location, that has been known to have a
3 fault system. We don't know that there are any
4 open or active faults in there. And it is an
5 incredibly significant distance away from the
6 location of the injection, and it's a system
7 that's very different from the injection
8 formation, the Murrayville sand formation which
9 has high porosity, high permeability, and is
10 adequate to accept the injection.

11 JUDGE WARD: So, in that regard, you
12 cite Exhibit B, but you don't give us a page
13 number. And you may not know it offhand, but --

14 MR. FRANKENTHALER: I think it was --

15 JUDGE WARD: -- if you can get us the
16 page number where you just gave that? The
17 explanation you just gave, where would we find
18 that in Exhibit B? That would be helpful.

19 MR. FRANKENTHALER: Oh, sure, that --

20 JUDGE LYNCH: Because the exhibit is
21 163 pages.

22 MR. FRANKENTHALER: I will look for

1 it, Your Honor.

2 Does the Board have any other --

3 JUDGE WARD: I had one other question,
4 too. I think in the response to comments, at
5 page 7, you make a statement that there are about
6 30,000 Class II wells in the United States, and
7 only a few have been documented to have triggered
8 earthquakes and none has caused underground
9 sources of drinking water contamination. But you
10 don't have a cite to a document in the record for
11 that proposition. If you could also provide us
12 with that, what document in the record you're
13 relying on, in addition to just making the
14 statement, that would be helpful.

15 MR. FRANKENTHALER: Very good, Your
16 Honor.

17 JUDGE AVILA: Could I ask one last
18 question?

19 MR. FRANKENTHALER: Of course.

20 JUDGE AVILA: Can you just take me
21 through the confining zones? Because there's a
22 statement in your brief about the Riceville

1 -- I'm not going to -- shale layer preventing
2 upward movement, and I thought that was below the
3 injection zone. So, I was a little -- how do
4 these confining zones work exactly?

5 MR. FRANKENTHALER: Well, so the
6 injection goes into the Marrysville sand
7 formation, which I believe is approximately
8 14,000 feet -- let me make sure I have that
9 accurate -- I mean 1400 feet below the ground
10 surface, or about 1400 feet below the lowest
11 underground source of drinking water, and above
12 that there is a confining zone about 80- to 90-
13 feet thick that -- you know, there are no known
14 fractures and no known faults within that zone as
15 well. That further prevents a possible migration
16 upwards of any injection material to any
17 underground source of drinking water.

18 JUDGE AVILA: And so, what role, if
19 any, does the -- I think it's page 11 of your
20 brief, the Riceville shale layer that's below the
21 injection zone. What role does it play, if any?

22 MR. FRANKENTHALER: Below the

1 injection zone?

2 JUDGE AVILA: Yes.

3 MR. FRANKENTHALER: I'm not certain,
4 Your Honor.

5 JUDGE AVILA: And there's a lot about,
6 in the record about vertical migration. Are
7 there any concerns about horizontal migration of
8 injected fluid?

9 MR. FRANKENTHALER: So, the
10 Marrysville, the formation where the injection is
11 going to go has high porosity and permeability,
12 which, in effect, allows for some level within
13 the zone of horizontal migration, which is a
14 positive thing because it prevents any pressure
15 from being located on any one specific place.
16 Some of the problems that were identified in
17 other states in large part were because of the
18 injection location where those wells were going
19 did not have porosity and did not have high
20 permeability. So, the injection continued to put
21 pressure on one particular location over a long
22 period of time over a high amount of pressure

1 without it being able to be dispersed. And
2 that's what caused, in situations where we've
3 seen the induced seismicity -- and that situation
4 just doesn't exist based on the geology that
5 we've identified in the permitting process and
6 the conditions that we've included in the permit
7 to prevent against that.

8 JUDGE AVILA: And just to follow up on
9 that point, I want to make sure I understand the
10 significance of prior oil and gas development in
11 the area. Am I correct in my understanding that
12 the import of that, for lack of a better term,
13 that fluid has been removed from the formation,
14 and therefore, there's even more porosity than
15 there might otherwise have been? Is that --

16 MR. FRANKENTHALER: There is some
17 scientific studies that indicate that, when
18 you're injecting into a location where there has
19 been past oil and gas production, and you are
20 using the voids that were formally filled, you
21 are actually going to be creating some level of
22 stability to the area by refilling those voids.

1 JUDGE WARD: One further technical
2 question.

3 MR. FRANKENTHALER: Of course.

4 JUDGE WARD: I think there's reference
5 to, with respect to injection pressure, the
6 instantaneous shut-in pressure, is one type of
7 pressure.

8 MR. FRANKENTHALER: Right.

9 JUDGE WARD: And then, the fracture
10 pressure. And then, I think it was set below the
11 instantaneous shut-in pressure. So, is that
12 always, by definition, less than the fracture
13 pressure?

14 MR. FRANKENTHALER: The instantaneous
15 shutoff pressure acts as a conservative metric to
16 use in order to ensure that the injection
17 pressure is going to be low enough to further
18 guarantee that any fractures will not potentially
19 be created or expanded by the injection. So,
20 it's a conservative metric that we use in this
21 situation as a further layer of protection.

22 JUDGE LYNCH: And how would that

1 relate to the fracture pressure? Is it lower
2 or --

3 MR. FRANKENTHALER: It should be that
4 the instantaneous shutoff pressure, it's -- I
5 don't know. I'm not sure that I could explain it
6 as technically competently as technical people
7 could. But it's used more as a calculation to
8 calculate the injection pressure. Usually, I
9 believe it's going to be -- it represents the
10 minimum pressure that's going to be -- let me
11 find out if I could, you know, let you guys know.

12 JUDGE WARD: Sorry, I have one more
13 question, which is --

14 MR. FRANKENTHALER: Sure.

15 JUDGE WARD: In the permit, there's a
16 different figure for the surface, I guess,
17 injection pressure, and then, the bottom hole
18 injection pressure. And the bottom hole
19 injection pressure can be higher. Just, again,
20 for my own edification, why are those different,
21 the figures different?

22 MR. FRANKENTHALER: Well, the

1 injection pressure at the surface is going to be
2 the injection pressure when the injected is going
3 into the system. The bottom hole injection
4 pressure will be the injection pressure as it
5 builds up over time from the injection that's
6 going in. And there's a limitation on what both
7 injection pressures can be.

8 JUDGE WARD: So, you said a lower
9 injection pressure because you know that, as it
10 were --

11 MR. FRANKENTHALER: That it will --
12 yes.

13 JUDGE WARD: Injection, if there's
14 more injection, then the pressure will build up
15 at the bottom?

16 MR. FRANKENTHALER: Right. Correct.

17 JUDGE WARD: Okay. That's helpful.
18 Thank you.

19 JUDGE AVILA: Thanks very much.

20 We'll hear from counsel for Penneco.

21 STATEMENT ON BEHALF OF
22 PENNECO ENVIRONMENTAL SOLUTIONS

1 MS. MOSITES: Good morning. Jean
2 Mosites for Penneco Environmental Solutions.

3 I tried to keep track of the questions
4 that you were deferring to the permittee, and
5 maybe I'll be able to answer them. I'll do my
6 best.

7 But, I mean, from what we've heard
8 from the Petitioner, this really is a challenge
9 to the program. And as this Board knows, and as
10 EPA knows, and as we know, it is a legal and
11 valid program, and the EPA has sound review and
12 protocols and methods for this permit and all the
13 other permits that it's issued under this
14 program.

15 So, the speculative inherent
16 uncertainty is really not something that's going
17 to allow this Board to consider this petition.

18 JUDGE LYNCH: So, Counsel --

19 MS. MOSITES: Yes?

20 JUDGE LYNCH: -- is your position that
21 the Petitioner waived reliance on the articles or
22 whether they also waived their argument on

1 seismicity?

2 MS. MOSITES: Well, that is a good
3 question, and it's a fine line. That's a hard,
4 hard thing for, I guess, the Board to consider.

5 But the articles clearly were not in
6 the record and should not be considered. And as
7 counsel for EPA answered the same question, to
8 the extent that those arguments rely upon those
9 articles, they should be ignored. So, if you
10 were to go through the petition and strike every
11 sentence that relies upon the articles that
12 aren't in the record, I don't know what's left.

13 JUDGE LYNCH: And I had a question,
14 while we're on articles, about a report that you
15 cite on page 13 of your brief. It's from 2016.
16 It was a report issued by Penn State, Department
17 of Geosciences, having to do with the correlation
18 between wastewater disposal activities and
19 seismic. Is that in the record?

20 MS. MOSITES: To the best of my
21 understanding, that was part of what was
22 submitted by Penneco in its response to the

1 Notice of Deficiency. There's a Penn State study
2 that's in that -- a voluminous document, as you
3 referred to. That response is thick. But that
4 study is in there.

5 JUDGE WARD: And do you have a page
6 citation for where it's referenced?

7 MS. MOSITES: I'm sorry --

8 JUDGE LYNCH: Because that's also
9 about 130 pages, right.

10 JUDGE WARD: That's 131 pages. So --

11 MS. MOSITES: I will get that for you.
12 It's right in the middle, and it's many pages
13 long. It's probably 15-20 pages long.

14 But, otherwise, we really feel that
15 this Board's case history and decisions on this
16 type of permit appeal are very clear, that if the
17 petition doesn't confront the EPA's response to
18 comments with specificity, which is entirely
19 lacking here, that review isn't warranted. There
20 are no facts, there are no challenges to the
21 specific site conditions, to this specific -- the
22 geology, this well, or EPA's review of it, or the

1 conditions in the permit. So, it really lacks
2 that specificity that would enable this Board to
3 review it.

4 JUDGE WARD: Can you address the
5 questions that we had asked counsel for EPA,
6 specifically as to when the well was constructed
7 and whether there's additional work to be done on
8 the well before it becomes operational?

9 MS. MOSITES: Yes. The well was
10 constructed in 1989 to the Bradford sandstone at
11 4300 feet below ground surface. It was
12 hydraulically-fractured and produced until 2015,
13 and it was plugged back to 1940 feet below ground
14 surface. So, it's a conversion that does not
15 require additional construction to the three-
16 string casing and cementing that was used for the
17 earlier production.

18 JUDGE WARD: Sorry, I'm not sure I
19 quite understood. So, there's no further work
20 that will be done?

21 MS. MOSITES: Correct.

22 JUDGE WARD: But it, nevertheless --

1 MS. MOSITES: It was plugged back --

2 JUDGE WARD: It was built in 1989?

3 MS. MOSITES: Right.

4 JUDGE WARD: But it's still meeting,
5 it will meet the standards articulated in the
6 permit in 2018?

7 MS. MOSITES: Absolutely, yes.

8 JUDGE WARD: Without anything further
9 needing to be done?

10 MS. MOSITES: Correct.

11 JUDGE WARD: And that conforms to
12 industry standards or EPA standards? Which is
13 it?

14 MS. MOSITES: Both, yes.

15 JUDGE WARD: Currently?

16 MS. MOSITES: Yes.

17 JUDGE WARD: Okay. And can you answer
18 the question or address the question about the
19 automatic shutoff device and how that works?
20 Does it require a human to push a button or?

21 MS. MOSITES: My understanding of an
22 automatic shutoff, it is automatic. So, when

1 triggered, it will shut off.

2 JUDGE WARD: Okay. And could you walk
3 us through in the permit how the -- the
4 monitoring and the testing of the well before it
5 becomes operational, and then, during its
6 operation, what does the permit require you to
7 do?

8 MS. MOSITES: The permit conditions
9 are very extensive, and they require the
10 mechanical testing again before operation is
11 approved. So, the permit has been issued, and
12 mechanical integrity has been tested in the past,
13 and will be tested again before operations can
14 commence.

15 The permit conditions that require the
16 monitoring, they not only require monitoring of
17 the ongoing, the flow, the pressure, the rate of
18 the fluid is being injected, but also sampling by
19 truckload to make sure that it still meets the
20 parameters of the type of water that should be
21 injected.

22 JUDGE WARD: And then, what does the

1 company have to do if it doesn't satisfy those
2 standards? So, if it exceeds what -- if it is
3 out of conformance with the permit requirements,
4 then what happens?

5 MS. MOSITES: Well, they wouldn't
6 inject water that's outside of the standard.

7 JUDGE WARD: Is there any requirement
8 to report to EPA if that occurs?

9 MS. MOSITES: The requirement is to
10 obtain those samples and to submit additional
11 samples if the company anticipates that they
12 would have changed in a way that would affect the
13 permit condition. So, it would really be in
14 advance of injecting that fluid.

15 JUDGE WARD: But would there be any
16 communication to EPA in that circumstance?

17 MS. MOSITES: Yes. So, the injected
18 fluid has to be sampled every two years or
19 whenever the operator anticipates a change.
20 "Monitor the composition, monitor and record the
21 fluid levels, measure the specific gravity of
22 each truckload, dilute the injection fluids, make

1 initial demonstrations" -- I'm just reading
2 permit conditions -- and perform all these
3 measurements required by the permit.

4 So, under reporting, there's 24-hour
5 reporting for any noncompliance, and within 24
6 hours of the time that Penneco becomes aware of
7 any circumstances.

8 JUDGE LYNCH: But is there also an
9 annual report that has to be submitted?

10 MS. MOSITES: Yes, there's also an
11 annual report. Yes. I was responding more to
12 the possibility of noncompliance, but, yes, there
13 is annual reporting as well.

14 JUDGE AVILA: So, what you
15 continuously monitor and record is, let's say,
16 surface injection pressure. If there's an
17 exceedance or if it's not in compliance with the
18 permit, what happens? Do you alert EPA or?

19 MS. MOSITES: In the case of a
20 shutdown, yes. I don't, I'm sorry, I don't know
21 which permit condition that would be. But in the
22 case of an automatic shutdown, I assume that

1 there would be communication with EPA within 24
2 hours.

3 JUDGE WARD: So, another question we
4 had for counsel for EPA, maybe you can address
5 it. It's, what purpose do the confining layers
6 serve? And I guess specifically the question we
7 had is to the purpose of the -- I think it was
8 the confining layer that's below the
9 injection zone, and a statement in the EPA brief
10 that it prevents upward migration.

11 MS. MOSITES: Right. Well, and again,
12 I'm not a technical person. But my understanding
13 is that the confining zones above and below the
14 zone of injection demonstrate that the injected
15 fluids will stay within that zone, right? So,
16 they're not going to be going up; they're not
17 going to be going down. So, vertical can be
18 either direction. Upward is where you would have
19 the concern of an impact with drinking water, but
20 downward is where you might have a concern with
21 an impact with some other unknown faults which
22 were not identified. So, I think that's why you

1 look both up and down.

2 JUDGE LYNCH: We were just thrown
3 because it just used the term "upward".

4 MS. MOSITES: Yes.

5 JUDGE LYNCH: We were thinking it
6 would be down.

7 JUDGE WARD: So, counsel for the
8 Petitioner had mentioned the Stonehaven case -- I
9 think it was footnote 11 -- as the basis for the
10 Board's taking into consideration articles that
11 were not submitted during the public comment
12 period. What's your response to that?

13 MS. MOSITES: Well, again, like
14 counsel for EPA mentioned, it depends, I guess on
15 what those are and whether or not they could have
16 been, should have been provided during the
17 comment period, so that EPA could respond to
18 them. And that certainly is the case here; they
19 could have been provided during the public
20 comment period.

21 And I don't know that there's any
22 reason to consider judicial notice of policy

1 arguments or this type of article that doesn't
2 really specifically apply to this well.

3 JUDGE LYNCH: But does the Petitioner
4 have to have site-specific information? Doesn't
5 Stonehaven also say that the Region has to
6 support its key findings in the administrative
7 record?

8 MS. MOSITES: And the EPA has
9 absolutely supported its key findings in this
10 record. So, if that were the justification,
11 there would be no need to consider these
12 articles.

13 JUDGE AVILA: In your brief, I think
14 it's page 9, you say that the methodology that
15 the Region did here for determining a potential
16 for induced seismicity has been acknowledged as
17 authoritative by the Board, and then, you have a
18 footnote citing our cases. And I was wondering,
19 what's the import of that? Don't we still need
20 to make sure that the Region didn't make any
21 clear error in applying that?

22 MS. MOSITES: Well, that's a good

1 question. I think it just shows that this is a
2 methodology that is scientifically-based. It has
3 the technical work groups and the studies that
4 EPA has done in 2013 and 2015, and that there's
5 no reason to question that methodology, that
6 standard operating procedure that they have that
7 looked at all known incidents and what are the
8 factors, and how to apply them in every
9 particular case -- has been before this Board
10 before.

11 JUDGE AVILA: And I take it your
12 position is that this Petitioner hasn't
13 challenged that, I'll call it the three-step
14 methodology, hasn't called into question that
15 methodology in its comments? Instead, is arguing
16 that there's additional permit terms that should
17 be included because of seismic concerns? Is
18 that --

19 MS. MOSITES: Right. This Petitioner
20 has not challenged that methodology at all.

21 JUDGE AVILA: All right. Thank you
22 very much.

1 MS. MOSITES: All right. Thank you.

2 JUDGE AVILA: Thank you to all counsel
3 for the very helpful argument.

4 And with that, we're adjourned.

5 And as is our practice, for those that
6 haven't practiced before the Board before, we
7 come down from the Bench and shake hands with
8 counsel.

9 And thank you very much, Counsel for
10 the Borough, for participating by
11 videoconference. We appreciate it, and we
12 appreciate your argument and your petition.

13 And thanks to all the parties for the
14 great argument and briefing in this case.

15 MS. DURR: All rise.

16 (Whereupon, the above-entitled matter
17 went off the record at 11:34 a.m.)
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22

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