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RE Indian Point Nuclear Generating Unit

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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10 CFR 2.206 PETITION REVIEW BOARD (PRB)

CONFERENCE CALL

RE

INDIAN POINT

+ + + + +

WEDNESDAY

JANUARY 28, 2015

+ + + + +

The conference call was held, Christopher Miller, Chairperson of the Petition Review Board, presiding.

PETITIONER: PAUL BLANCH

PETITION REVIEW BOARD MEMBERS

Christopher Miller, Chairperson

Lee Banic

Thomas Setzer

Rob Carpenter

Dave Beaulieu

Dave Cylkowski

Ben Beasley

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1 PETITION REVIEW BOARD MEMBERS (Continued)

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3 Tahirih Solomon

4 Rao Tammara

5 Mike McCoppin

6 Dori Willis

7 Greg Oberson

8 Diane Render

9 Sergiu Basturescu

10 Doug Tifft

11 Stella Opara

12 Doug Pickett

13 Gladys Figueroa

14 Neil Sheehan

15 Sergiu Basturescu

16 Paul Prescott

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T-A-B-L-E O-F C-O-N-T-E-N-T-S

Opening Remarks

Doug Pickett.....4

Introductions.....5

Chairman's Remarks

Christopher Miller.....10

Presentation by Petitioner

Paul Blanch.....17

Richard Kuprewicz.....19

Statement from New York Assemblywoman Galef's Office

Dana Levenberg.....34

Questions for the Presenters

Susan Van Dolsen.....40

1
2
3
4
5
6
7
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P-R-O-C-E-E-D-I-N-G-S

MR. PICKETT: Good afternoon. Again, my name is Doug Pickett. I'm the Indian Point project manager in NRR in Rockville, Maryland. We're here today to allow the Petitioner, Mr. Paul Blanch, assisted by Mr. Richard Kuprewicz of Accufacts, Incorporated, to address the Petition Review Board, also referred to as the PRB, regarding the 2.206 petition submitted by Mr. Blanch on October the 15th, 2014. I am the petition manager for the petition and the PRB Chairman is Mr. Christopher Miller.

As part of the PRB's review of this petition Mr. Paul Blanch has requested this opportunity to address the PRB. This meeting is scheduled from 2:30 to 3:30 this afternoon.

The meeting is being recorded by the NRC Operations Center and will be transcribed by a court reporter. The transcript will become a supplement to the petition. The transcripts will also be made publicly available.

I'd like to open this meeting with introductions. As we go around the room here in Rockville, Maryland, please be sure to clearly state your name, your position and the office that you work

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1 for within the NRC. We're going to start introductions
2 with myself here in Rockville, Maryland.

3 I'm Doug Pickett, the petition manager.

4 CHAIRMAN MILLER: And I'm Chris Miller.
5 I'm with the Division of License Renewal in the Office
6 of Nuclear Reactor Regulation, and I'll be the PRB
7 Chair.

8 MS. RENDER: I'm Diane Render from the
9 Division of Operating Reactor Licensing, project
10 manager.

11 MR. McCOPPIN: Mike McCoppin. I'm Chief
12 of the Radiation Protection and Accident Consequences
13 Branch, Office of New Reactors.

14 MR. TAMMARA: My name is Rao Tammara. I'm
15 the technical reviewer, NRO.

16 MR. COLYER: Eddie Colyer, project
17 manager, Health Quality and Rulemaking.

18 MS. Banic: Lee Banic, NRR petition
19 coordinator.

20 MR. BLANCH: Yes, could people speak up a
21 little bit? I'm having trouble hearing.

22 PARTICIPANT: Can't hear.

23 MR. CYLKOWSKI: David Cylkowski. I'm an
24 attorney in the Office of General Counsel.

25 MS. SOLOMON: Tahrih Solomon, the senior

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1 special agent with the Office of Investigations.

2 MR. CARPENTER: Rob Carpenter, Office of
3 Enforcement, enforcement specialist.

4 MR. BEASLEY: Ben Beasley. I'm a branch
5 chief in the Division of Operating Reactor Licensing.

6 MS. WILLIS: Dori Willis. I'm the team
7 lead for Allegations and Enforcement in NRR.

8 MR. Harris: Brian Harris, project
9 manager, DPR.

10 MR. OBERSON: Greg Oberson, materials
11 engineer, Office of Nuclear Regulatory Research.

12 MS. SPIRA: Mattie Spira, Office of
13 Enforcement.

14 MS. OPARA: Stella Opara, NRR, allegations
15 specialist.

16 MR. PICKETT: We have completed the
17 introductions in the NRC headquarters. You can tell
18 we've got quite a few people in a lot of areas of
19 expertise being represented.

20 At this time we'd like to know is there
21 anybody else from NRC headquarters on the phone?

22 MR. PRESCOTT: Yes, Paul Prescott from the
23 Office of NRO, Quality and Vendor Inspection Branch.

24 MR. BASTURESCU: Sergiu Basturescu, NRR,
25 Technical Review.

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1 MR. PICKETT: Okay. Anyone else from NRC
2 headquarters?

3 (No audible response)

4 MR. PICKETT: And is there anyone from NRC
5 from the regional office on the phone?

6 MR. SHEEHAN: Neal Sheehan, Office of --
7 (Simultaneous speaking)

8 MR. PICKETT: I'm sorry, we heard Neal
9 Sheehan and who else?

10 MR. BURRITT: Art Burritt.

11 MR. PICKETT: Okay.

12 MR. SETZER: Doug, Tom Setzer, Region I.

13 MR. PICKETT: Okay. And the Licensee,
14 Entergy, could you please introduce who you have on the
15 phone?

16 MR. WALPOLE: Sure, Doug. It's Bob
17 Walpole, Manager; Steve Prussman from Regulatory
18 Assurance; and Rich Drake, our civil engineering
19 supervisor.

20 MR. PICKETT: Okay. Mr. Blanch, Mr.
21 Kuprewicz, would you please introduce yourselves along
22 with anyone else that's with you for the record?

23 MR. BLANCH: Yes, this is Paul Blanch.
24 I'm an energy consultant and the Petitioner. I'd like
25 to introduce Rick Kuprewicz, who will be also making a

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1 statement. I'd like to thank Jerry Shapiro of Senator
2 Gillibrand's office; Dana Levenberg, who will also be
3 making a brief statement; and Sara Levine of
4 Assemblywoman Lowey's office. And I'd like to say hi
5 to old friends Bob Walpole and Paul from Morgan Lewis.

6 MR. PICKETT: Okay. It's not required for
7 members of the public to introduce themselves for this
8 call, however, if there are members of the public; and
9 I understand there are, could you please identify
10 yourself at this time?

11 MS. CLAIRE: Paula Claire, Garrison, New
12 York.

13 MS. GLIDDEN: Susanna Glidden, North
14 Salem, New York.

15 MS. ROSEMARY: Emily Rosemary,
16 councilwoman, Town of North Salem.

17 MS. McDONALD: Susan McDonald, New York.

18 MS. VAN DOLSEN: Susan Van Dolsen,
19 Harrison, New York.

20 MR. PICKETT: Could we do those again, the
21 last two. Susan McDonald I heard and --

22 MS. VAN DOLSEN: Susan Van Dolsen,
23 Harrison, New York.

24 MR. PICKETT: Thank you.

25 MS. VANN: Nancy Vann, Peekskill, New

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1 York.

2 MR. HOUSTON: William Houston,
3 Binghamton, New York.

4 MR. BESSETTE: Paul Bessette, Morgan
5 Lewis.

6 MS. WISER: Ellen Wiser, White Plains, New
7 York.

8 MS. SPEAR: Susan Spear, Office of U.S.
9 Senator Kirsten Gillibrand.

10 MR. LOCHBAUM: Dave Lochbaum, Union of
11 Concerned Scientists.

12 MR. PICKETT: Okay.

13 MS. LEVENBERG: Dana Levenberg, New York
14 State Assemblywoman Sandy Galef's office.

15 MS. LEVINE: Sara Levine, Congresswoman
16 Nita Lowey's office.

17 MR. PICKETT: Okay. If there's no one
18 else, I'd like to emphasize that we each need to speak
19 clearly and loudly to make sure that the court reporter
20 can accurately transcribe this meeting. If you have
21 something to say, we'd like you to first state your name.
22 For those dialing into the meeting, please remember to
23 mute your phones to minimize any background noise or
24 distractions. If you do not have a mute button, you can
25 do this by pressing the star, six buttons. To un-mute,

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1 press the star, six keys again.

2 At this time I'll turn this over to the PRB
3 Chairman, Chris Miller.

4 COURT REPORTER: Mr. Pickett, this is the
5 court reporter. Before you proceed with the call this
6 afternoon, at the conclusion of the call could you
7 provide me with a service list of the names of everyone
8 on the call? People that registered to speak and party
9 members.

10 MR. PICKETT: I can certainly give the
11 names of the NRC folks. I was hoping to rely on you to
12 get the names of everybody else.

13 COURT REPORTER: So do you have a list of
14 people who are registered to speak?

15 MR. PICKETT: This call is also being
16 recorded by the NRC Operation Center, so we can go back
17 over the recording.

18 COURT REPORTER: All right. Thank you.

19 MR. PICKETT: I'll help you out with that.

20 COURT REPORTER: Sure. Thanks.

21 MR. PICKETT: Okay.

22 CHAIRMAN MILLER: Thank you. And good
23 afternoon, everyone. Thanks for convening with us
24 today and agreeing to provide information. Thank you,
25 Mr. Blanch and Mr. Kuprewicz. I'm Chris Miller and I'm

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1 looking forward to hearing the information you have to
2 provide for us.

3 I'd like to first share some background on
4 the process that we're using. Section 2.206 of Title
5 10 of the Code of Federal Regulations process is the
6 primary mechanism for the public to request enforcement
7 action by the NRC in a public process. This process
8 permits anyone to petition the NRC to take
9 enforcement-type action related to NRC licensees or
10 licensed activities. Depending on the results of its
11 evaluation, the NRC could modify, suspend or revoke an
12 NRC-issued license or take any other appropriate
13 enforcement action to resolve a problem. The staff
14 guidance for the disposition of this 2.206 petition
15 request is in Management Directive 8.11, which is
16 publicly available on our Web site.

17 Today's meeting's purpose is to give the
18 Petitioner, Mr. Blanch, an opportunity to provide any
19 additional explanation or support for the petition
20 before the Petition Review Board's initial
21 consideration and recommendation.

22 So we have the initial documents that you
23 sent, and I believe you supplemented with some
24 additional items, Mr. Blanch, today. They came to us
25 at the last minute and I don't know if everybody on the

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1 Board has gotten a chance to look at all of them, but
2 we do have them and we'll take them into consideration
3 when the Panel meets.

4 So, a couple of things. This meeting is
5 not a hearing. It's not an opportunity for the
6 Petitioner to question the NRC or the PRB about the
7 merits of the issues presented in the petition request.
8 It's really an opportunity for you to give us a fuller
9 picture, us, the members of the Board, a fuller picture
10 that we can work from in making our deliberations.

11 No decisions regarding the merits of this
12 petition will be made at this meeting.

13 Following the meeting the Petition Review
14 Board will conduct its internal deliberations and then
15 the outcome of the internal meeting will be discussed
16 with the Petitioner, Mr. Blanch.

17 The Petition Review Board typically
18 consists of a chairman, usually a manager at the senior
19 executive level who serves with the NRC. And you've
20 heard some of the other -- that's myself. And then a
21 petition manager, which is Doug, and a PRB coordinator.
22 Other members of the Board are determined by the NRC
23 staff based on the content of the information in the
24 petition request.

25 As described in our process, the staff may

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1 ask clarifying questions in order to better understand
2 the Petitioner's presentation and reach a reasoned
3 decision whether to accept or reject the Petitioner's
4 request for review under the 2.206 process. And we'll
5 try to do that at the end of the call. We'll listen to
6 everything that you and your speakers have, Mr. Blanch,
7 and then we'll try to ask if there's any clarifying
8 questions or any additional information that we think
9 that members of the Board may need to ask of you.

10 With that being said, I want to summarize
11 the scope of the petition under consideration and the
12 NRC activities to date. On October 15th Mr. Blanch
13 submitted a 2.206 petition to the NRC regarding the 10
14 CFR 50.59 site hazards analysis prepared by Entergy
15 Nuclear Operations, the Licensee, for Indian Point
16 Nuclear Generating Stations 2 and 3.

17 The 50.59 analysis was performed by the
18 Licensee to determine the safety impact on the Indian
19 Point plant due to Spectra Energy's proposed 42-inch
20 diameter natural gas pipeline that has plans to traverse
21 a portion of the owner-controlled property at the Indian
22 Point facility.

23 In the petition Mr. Blanch requests that
24 the NRC take the following enforcement actions against
25 Entergy, the Licensee, for the following violations:

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1 Violation of 10 CFR 50.59, Completeness and Accuracy of
2 Information, for providing inaccurate and incomplete
3 information in the 50.59 site hazards analysis;
4 violation of 10 CFR 50, Appendix B, Quality Assurance
5 Criteria for Nuclear Plants and Fuel Reprocessing
6 Plants, for relying on a contractor who was not
7 qualified in accordance to Appendix B requirements, was
8 not qualified in accordance with Entergy Quality
9 Assurance Program, and, as a result, was not qualified
10 to perform an analysis for such significant
11 safety-related issue; and violation of 10 CFR 50.59,
12 Changes, Tests and Experiments, for failing to perform
13 the necessary safety evaluation requirements.

14 Furthermore, in the petition, Mr. Blanch
15 requested that the NRC issue a demand for information
16 against Entergy for the following: Demand an
17 explanation from Entergy seeking an explanation as to
18 why the previously identified violations do not also
19 constitute a violation of 10 CFR 50.5, Deliberate
20 Misconduct; demand that Entergy seek the results of a
21 new and realistic risk hazard analysis consistent with
22 the guidance providing in OSHA Appendix C, Section
23 1910.119, Compliance Guidelines and Recommendations
24 for Process Safety Management; and demand that Entergy
25 attest to the completeness and accuracy of Entergy

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1 Report IP-PRT-08-00032, prepared in August 2008 that
2 assessed the safety impact of the existing 26 and
3 30-inch diameter natural gas pipelines that traverse
4 the owner-controlled property in Indian Point.

5 That report was performed by the same
6 contractor that performed the current site hazards
7 analysis for Entergy. In addition, the report from
8 August 2008 contributed to NRC's rejection of a previous
9 2.206 petition submitted by Mr. Blanch concerning the
10 existing natural gas pipelines.

11 The Petitioner has also supplemented his
12 original petition with the following: The Town of
13 Cortlandt, New York contracted with Accufacts,
14 Incorporated to perform a review and analysis of the
15 proposed Spectra Energy natural gas pipeline and how it
16 may affect Cortlandt.

17 The Blanch petition is supplemented by the
18 Accufacts letter dated November 3rd, 2014 that is
19 critical of Entergy's 50.59 site hazards analysis and
20 characterizes it as seriously deficient, inadequate and
21 under-representing the real risks.

22 Point 2, the Petitioner letter dated
23 November 11th, 2014 discusses the proposed West Point
24 Partners' construction of a high voltage direct current
25 transmission cable that may run near or adjacent to the

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1 proposed natural gas pipelines before tying into the
2 Buchanan Switchyard. This letter also supplements the
3 Blanch petition. The Petitioner has expressed concern
4 that stray DC currents emanating from the high voltage
5 cable could adversely impact the existing gas
6 pipelines, the new gas pipelines, and underground
7 safety-related components at the Indian Point facility.

8 And if I may discuss the NRC activities to
9 date, on November 24th, 2014 the petition manager
10 contacted the Petitioner to discuss the 2.206 process
11 and to offer the Petitioner an opportunity to address
12 the PRB by phone or in person. Petitioner requested to
13 address PRB by phone prior to its internal meeting to
14 make the initial recommendation to accept or reject the
15 petition for review.

16 As a reminder for the phone participants,
17 please identify yourself if you make any remarks as this
18 will help in the preparation of the meeting transcript
19 that will be made publicly available. And thank you.

20 Mr. Blanch, I'll turn to over to you and Mr.
21 Kuprewicz to provide any information you believe the PRB
22 should consider as part of this petition.

23 MR. BLANCH: Okay. This is Paul Blanch
24 speaking again. With your introduction, which I
25 appreciate, I'm sorry, that was Charles Miller is your

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1 name?

2 CHAIRMAN MILLER: Chris Miller.

3 MR. BLANCH: Chris Miller?

4 CHAIRMAN MILLER: Yes.

5 MR. BLANCH: Okay. You stated obviously
6 that this is being conducted in accordance with 10 CFR
7 2.206 and guidance provided by Management Directive
8 8.11. And you made a statement that this is not an
9 opportunity for questions by the Petitioner. I'm not
10 sure where that statement originated. I've reviewed
11 Management Directive 8.11 and it's clear certainly that
12 the Licensee is allowed to ask questions and the NRC can
13 ask questions and it does not prohibit the Petitioner
14 from asking questions. Again, we don't have to get into
15 the details of the Management Directive.

16 But secondly, this meeting is somewhat a
17 follow up of a telephone conversation the NRC had in
18 early December with various congressional
19 representatives of the New York and Westchester area,
20 and during that meeting and confirmed by a Mr. Doug
21 Tifft, T-I-F-F-T, that Mr. Blanch would have an
22 opportunity with meetings with the NRC staff and those
23 meetings would include this conversation. So the
24 inference there was that I myself would be able to
25 address technical issues, and that's my primary

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1 interest. And the reason for my interest is primarily
2 to decide whether I further want to amend my petition
3 or take any other subsequent action, including -- well,
4 whatever action I decide to take.

5 Again, I filed a Freedom of Information Act
6 request for various documents related to the analysis,
7 which has been totally redacted except for an
8 introduction and one single reference, that reference
9 being the submittal by Entergy of August 21st. We and
10 the experts are extremely interested because we suspect
11 there contains inaccurate information within the
12 analysis, and I'll get into that a little bit later.

13 And other federal agencies, and Richard can
14 expound on this. There's a process which I sent to you.
15 It's called CEII, which allows members of the public and
16 technical experts to sign an agreement to review various
17 documents that are proprietary, confidential or could
18 endanger the health and safety of the public, and so on
19 and so forth. We'd like the NRC to consider entering
20 into some type of agreement where our experts could
21 review the Entergy and the NRC analysis, because we
22 certainly believe that it contains questionable
23 information at first, at best.

24 Our main concern, and there are many
25 concerns; and Richard is probably the most qualified to

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1 speak on that, but in the summary of the analysis
2 provided August 21st by Entergy there was an assumption
3 that the gas flow would be terminated within three
4 minutes of its initiation. And I don't mean detection,
5 but initiation. And based on historical experience and
6 research we certainly question that. And I'd like to
7 stick with that primary point and have Richard speak to
8 that, if that's okay.

9 Now, Richard, if you would like to speak on
10 that particular three-minute isolation time.

11 MR. KUPREWICZ: Sure. Maybe my preamble
12 is, because I haven't spoken up before, and if I'm not
13 getting clear, please speak up because it's hard over
14 the phone on conference.

15 Let me just give you a brief background
16 here. I won't spend a lot of time. I don't usually
17 waste a lot of time selling myself, but I've got over
18 40 years experience in the energy industry, especially
19 in incident investigations related to major pipeline
20 failures. I've spent many years trying to improve
21 pipeline safety regulations, especially after the
22 terrible pipeline ruptures in Bellingham in '99 and in
23 Carlsbad in 2001. That was a gas transmission line was
24 the latter one. And in Bellingham it was a liquid line.
25 Multiple loss of life, near loss of the city in

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1 Bellingham, and obviously a tragic loss of life in
2 Carlsbad, a very remote area. It killed 12 people, 5
3 of them children.

4 Anyway, I have assisted over many years in
5 the improvement of pipeline safety regulation, trying
6 to work with industry and various other parties,
7 regulators as well as the public, usually representing
8 the public as members on various committees. Many of
9 those served in the development of pipeline safety
10 regulation regarding integrity management, especially
11 for transmission pipelines. And also in the area that
12 may be very relevant to this particular subject, in the
13 area of pipeline control room management. And those
14 regulations have been promulgated and are now in
15 regulation. And as again in all regulation, there's
16 always a series of compromises, but hopefully you move
17 the ball forward.

18 And I spent over 40 years trying to improve
19 the area of control room management for not only
20 refineries and chemical plants, but also in pipelines.
21 I have very little tolerance for trying to blame the
22 pipeline control room operator for some of these
23 terrible incidents you've been seeing lately in the last
24 10 or 15 or so years.

25 On the issue that may be very relevant here,

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1 you can get my CV. It's in the public domain. That
2 will cover most of my documents that are in public. The
3 investigations I've been brought into, that are
4 hypersensitive are not in public domain, may involve
5 criminal investigations, and I will not discuss any of
6 that stuff. And I can bring lots of attorneys in on both
7 sides of the fence that will try to protect that
8 neutrality.

9 I am also a very experience HAZOP team
10 leader, and I only mention that because a HAZOP team
11 leader used to carry under law under OSHA a requirement
12 that you had to be field experienced, operational
13 experience to lead the team. I don't know if that's in
14 the current regulations, but that doesn't mean a couple
15 years. So again, the experience requirement is there
16 to assure you're asking the right questions and then the
17 parties can reach a rational reasonable conclusion.

18 Now, let me focus in on the specific issue
19 of the claimed three-minute closure time for the valves.
20 I think the report that I've seen that's in public
21 indicates that they'll close the valves in three minutes
22 under the impression that that will actually stop the
23 gas burning, or the gas explosions, more likely
24 explosions than gas burning, within a three-minute time
25 period. And I'll just tell you that my extensive

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1 experience in this area, you won't even necessarily
2 recognize this within three minutes, much less within
3 a control room many, many miles away, take the
4 appropriate actions to try to initiate actions to shut
5 down, close -- shut some compressors and close valves.
6 That can go for quite some time.

7 Now, in all fairness I need to point out in
8 the San Bruno pipeline rupture, a slightly different
9 animal, smaller line, lower pressure, not necessarily
10 remote-operated valves, but that burned for over 90
11 minutes. Okay? And in that particular location the
12 fire department was several hundred yards down the
13 street. Okay? So my point is in these terrible
14 tragedies -- nobody wants a pipeline rupture, but in
15 these large diameter pipeline ruptures all kinds of
16 dynamics and noise interfere so that what happens is a
17 guy in a control room may or may not get information in
18 a manner allowing him to make what I'll call executive
19 decisions to take the appropriate action to handle a gas
20 pipeline rupture. So time can go very quickly in a
21 control room.

22 And so in this particular case I would say
23 the illusion of a closure time in three minutes is -- it
24 may be after you push the buttons to do that, you may
25 be designed to do that, but the real relevant issue that

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1 this Panel I think needs to consider is the actual
2 dynamics that in the event of a pipeline rupture in this
3 sensitive location, the system dynamics will
4 substantially delay the recognition and the appropriate
5 shutoff and responses such that gas will explode and
6 burn for quite a period of time. Right?

7 I need to just comment on one other issue
8 that's often confusing, and that is in federal pipeline
9 safety regulation there's an animal called the
10 potential impact radius that's used to decide what we
11 think might be the potential impact from a gas
12 transmission pipeline rupture. That animal was never,
13 ever intended -- and FERC knows this. I've said this
14 in enough cases under oath, that that was a screening
15 tool to help define high consequence areas. And I've
16 also said under oath in other cases that the PIR was
17 meant to help identify high consequence areas and should
18 not be used to cite the consequences of pipeline
19 ruptures.

20 As it turns out, the larger the diameter of
21 the pipeline, the potential impact radius moves in the
22 right direction, but the actual impact radius can be
23 much larger. And I have said to PHMSA on more than one
24 occasion, trying to go through a cycle to improve the
25 regulations for larger diameter pipelines, that became

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1 very evident -- that there was a problem in the federal
2 regulations that became very evident after the San Bruno
3 rupture. And even the NTSB acknowledges this, there's
4 something not quite right with this PIR equation for
5 larger diameter pipelines.

6 Now with that said, I think the fundamental
7 issue here from my perspective is if the pipeline were
8 to rupture either as a 30-inch or a 42-inch; because the
9 issues goes beyond just the 42-inch, would it generate
10 blast? And the answer probably is mostly likely,
11 though there are ruptures that don't generate blasts.
12 They're rare. When I say "blasts," I mean blasts from
13 the ignition of the gas cloud that is mixed with the
14 turbulent action. And most likely in a rupture you'll
15 get multiple blasts.

16 From what I have seen of the layout; and
17 again, I haven't seen a complete detail of the layout,
18 I don't expect blast forces because -- like major damage
19 to like the reactor buildings or anything, because
20 they're pretty reinforced, but the question would be
21 would possible blast generated cause damage to
22 structures that might be what I'd call safety- critical
23 that would interfere with the possibility of having the
24 fail-safe shutdown of the Reactors 2 and 3? And I don't
25 have an answer to that one. I'll be very frank with you.

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1 I would tell you this: Blast forces tend
2 to dissipate. They're situation-specific. And from
3 what I've seen I would expect that there are blast
4 forces. While they will kill, they wouldn't
5 necessarily damage a lot of structure because they
6 dissipate quickly with distance. So the controlling
7 issue regarding this from my perspective and experience
8 is the tremendous amount of heat flux generated from
9 these high-tonnage release gas transmission pipeline
10 ruptures that have ignited.

11 And what happens is the higher the heat
12 flux, the longer the duration, the more damage that can
13 occur. I would expect extensive damage to auxiliary
14 equipment such as transmission pipelines and equipment
15 that might be related to fail-safe shutdown of the
16 reactor facilities themselves.

17 And that's where I brought the very simple
18 question in my report. In the event of a rupture of a
19 sustained duration; it's going to be longer than three
20 minutes given the transient dynamics on this system,
21 what equipment would be affected and would it interfere
22 with the fail-safe shutdown of the plant? I don't have
23 an answer for you on that. I can tell you the burns will
24 be substantially longer than three minutes with
25 significantly high heat fluxes.

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1 That's about it for me.

2 MR. BLANCH: Thank you very much, Richard.
3 Does anyone have any questions for what Richard just
4 said?

5 Mr. PICKETT: Excuse me. I just take it
6 -- I do have a question for Mr. Kuprewicz. And I am
7 no --

8 MR. KUPREWICZ: Who's speaking?

9 MR. PICKETT: Doug Pickett. I am no pipe
10 expert like you are, Mr. Kuprewicz, but in layman's
11 terms, and I think I probably represent a lot of the
12 people in the room here, when we think about a 42-inch
13 gas line breaking, we would imagine a major explosion,
14 but after that we would think this would be like
15 effectively a torch and it wouldn't matter whether the
16 valve closed in three minutes or three hours. Now am
17 I wrong in my thinking?

18 MR. KUPREWICZ: Well, first of all,
19 there's no dumb question, so please do not hesitate to
20 ask, if you can. If I'm not clear, then please ask.
21 I'm not here to give a speech.

22 That's a fair question you ask. The
23 tonnage release on these, especially these large
24 diameter pipelines are such that you can expect to see
25 multiple detonations, multiple blasts. The initial

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1 blast will probably be the highest force one. And so
2 when you do site-specific blast pressure waves from the
3 tonnage release and time to ignition, usually the
4 initial blast ignition will have the greatest force.
5 But then what will happen, because the gas releases are
6 so great and the air cloud mixture is so turbulent,
7 you'll see multiple secondary blasts, but they won't be
8 as significant as the first one.

9 But those blast pressure waves will
10 -- again, the science will tell you they dissipate quite
11 quickly with distance. So if you're in a real congested
12 area, that will contribute to the blast forces. But
13 from what I've seen of the structure spacing, I think
14 if you sat down and went through the detail of the layout
15 of the critical structures at Indian Point, while blasts
16 can be an issue of concern, my less-than-informed
17 opinion at this stage given the limited information that
18 can be made public is that while blasts can damage
19 structures and actually cause some building failures,
20 I don't think it will necessarily -- it won't interfere
21 with the reactors structures. They're pretty
22 hardcore.

23 So you'll get multiple blast explosions,
24 but that's not the controlling factor. The controlling
25 factor is the tremendous heat flux and the duration of

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1 that heat flux. I have seen the heat fluxes so high that
2 they will liquify steel at a distance and vaporize
3 aluminum. And I'm not saying that to scare anybody. I
4 just want everybody to understand if that occurs, what's
5 that do to the equipment that could be used to fail-safe
6 the plant? If it can't affect the plant and the plants
7 can still be fail-safed, then even in a tremendous
8 tragedy such as a rupture the plant is protected. And
9 then I'd have to say I don't like rupture, but I can tell
10 you that the plant would be protected. But I can't say
11 that. I can't come to that conclusion from what I've
12 seen to date.

13 DR. GAVIN: Well, I'm just trying to get a
14 better understanding of the difference between the
15 valves closing in three minutes versus three hours.
16 And it sounds like the heat flux is the limiting factor.

17 MR. KUPREWICZ: Well, I think that --
18 Well, no, no. Let me be real clear here: There's more
19 than just the time to close the valves. You have to
20 recognize that while you have a rupture; and it won't
21 be pressure drop, okay, the dynamics of where this pipe
22 is located in proximity to the compressor station you
23 would most likely not see pressure drop. So you won't
24 see pressure drop alarms for quite a while in the control
25 room that may be 1,000 miles away. And that's not the

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1 control room operator's fault. Okay?

2 The dynamics, the way the rupture will
3 work, the way a pipeline ruptures, it unzips in a
4 microsecond. It totally casts out pipe steel in all
5 directions and forms these huge craters and then the gas
6 roars at the speed of sound coming out of the pipe and
7 the gas, the speed of the sound and the gas, which is
8 higher than the velocity of the speed of sound and air.
9 That's why you hear these roars and nobody can figure
10 out what it is.

11 So my point is that if you had a rupture,
12 it's going to be awhile before somebody in a control room
13 gets the word that you might have a rupture. And that's
14 going to be more than probability. If you ran the
15 transient dynamics and you were trying to figure this
16 out, you were trying to estimate how much time would it
17 take before we'd understand we had a rupture and gave
18 the command to close valves, it may be many, many
19 minutes.

20 Mr. Pickett: Okay. Thank you.

21 MR. BLANCH: Yes, and this is Paul
22 following up. We do have other structures. We have
23 the gas turbine fuel oil tanks that are located in a very
24 close proximity which hold hundreds, maybe millions of
25 gallons of jet fuel oil which would flow downhill. We

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1 have other vital structures. We have the switchyard.
2 We have transformers. We have vital tanks that are used
3 for cooling which are in the high-heat flux and blast
4 radius.

5 We also have information that the flow in
6 the existing lines, the 26 and 36-inch lines, may in fact
7 be changed through this modification. We do not know
8 if this has been addressed.

9 MR. KUPREWICZ: Yes, and that's a good
10 point. And I didn't mention this, but Paul has brought
11 up a good point. If that jet fuel tank is part of your
12 fail-safe system, and if I understand it's within 150
13 feet of this pipeline, blast radius will take the tank
14 out. Okay?

15 Now, if you don't need it to fail-safe the
16 plant, it'll burn, it may even explode, but it won't
17 necessarily -- if you don't need it to fail-safe the
18 plant, then from my perspective I don't like it, but it's
19 not going to jeopardize the plant.

20 MR. BLANCH: Well, it will burn -- it will
21 be hundreds of thousands of gallons of burning fuel
22 flowing down into safe-related structures.

23 MR. KUPREWICZ: Okay. If you know the
24 detail, because I don't --

25 (Simultaneous speaking)

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1 MR. BLANCH: That's why I --

2 (Simultaneous speaking)

3 MR. KUPREWICZ: -- the risk analysis would
4 look at.

5 MR. BLANCH: That's why I sent you the plan
6 view of a site showing elevations and distances. And
7 you can see it flows right down near safety-related
8 structures, which we all know what they are. The
9 switchyard will be taken out. There are other vital
10 components that will be taken out.

11 The bottom line here is that none of us know
12 everything about this. I certainly don't. Richard
13 will admit he doesn't know everything about nuclear
14 safety, and we all have our shortcomings. And we
15 desperately need to have the ability to review this
16 analysis and FERC has a procedure for allowing it called
17 CEII, which I don't know what means, but we can sign
18 confidentiality agreements for the very purpose that
19 you said we can't have it.

20 I have security clearance. I have worked
21 at Indian Point and other plants. Richard has security
22 clearance. Any other experts that we decide to bring
23 on would have the security clearance to review the
24 analysis and make sure it's complete and considered
25 everything.

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1 We have significant safety issues, and
2 we're not talking like in Connecticut where it killed
3 seven people. We are talking tens of millions of people
4 that could be endangered by releases from Indian Point.
5 And we cannot take this lightly.

6 We cannot believe for instance the
7 three-minute closure time, the fact that vital
8 structures will not be jeopardized. Flow in the
9 existing lines, which you said before in the final
10 safety analysis report that the rupture of those lines
11 is not feasible, yet it is feasible in the new lines.
12 I mean, either you're telling me the truth now or
13 something is amiss here. We have a probability of zero
14 for one line and a finite probability for another.

15 We absolutely need an independent
16 assessment of the analysis, and that is what we're
17 questioning. And I think that we need to pursue this,
18 that the NRC has to check with its management for an
19 independent review, whether we do it in cooperation with
20 Spectra, Entergy, NRC. That's fine with us. We'd love
21 to hear all inputs. But it's an absolute necessity that
22 further review be done by the experts in these various
23 disciplines, especially Richard, and including myself,
24 who has knowledge of Indian Point Nuclear Power,
25 knowledge of the regulations, knowledge of the risks.

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1 I have met with the chairman's office on
2 issues similar to this where the chairman at the time
3 allowed me to meet and shared with me information that
4 is not necessarily publicly available. That is what we
5 are asking in addition to the requests of the 2.206
6 petitions.

7 Again, I think that's pretty much what I
8 want to say, and I would like to hear from Congresswoman
9 Lowey's office by way of Dana Levenberg and hear some
10 of her statements, if she is ready to make some
11 statements. Dana?

12 MS. LEVENBERG: Sorry, I was on mute. Hi,
13 I'm sorry. Just to clarify, Dana Levenberg,
14 L-E-V-E-N-B-E-R-G, and I'm from New York State
15 Assemblywoman Sandy Galef's office, so a state
16 representative, not a congressional representative.

17 I just wanted to reiterate the
18 assemblywoman has as recently as January 15th submitted
19 a letter to the Secretary of FERC, as well as the
20 chairman of the NRC underscoring her extreme concern
21 that this independent risk assessment that was done both
22 by Entergy and -- I mean, that the assessment that was
23 done both by Entergy and NRC has experts like Rick and
24 Paul overseeing it, looking at it, reviewing it, or even
25 conducting their own analysis with the relevant

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1 pertinent information that has been provided. And
2 again, Paul laid out some possibilities. I'm not sure
3 what the one that would be best for NRC is. She's
4 extremely concerned that the issues that have been
5 brought forth by these two experts preclude the safe
6 siting of a larger pipeline so close to Indian Point.

7 She also wanted to make sure that as she
8 understands it there's no precedent for this type of
9 proximity and this size of gas line to be so close to
10 a nuclear power plant. And this is the most critical
11 nuclear power plant in our nation, one that has the NRC's
12 -- maybe the most eyes on this plant, more so than maybe
13 any other because its proximity to New York City.

14 And the radius of the impact of a blast and
15 additionally the heat that would create these other
16 issues that Mr. Kuprewicz has pointed out, based on the
17 fact that this three-minute assumption that was used and
18 that was articulated by the NRC expert on a phone call
19 that the assemblywoman organized with some
20 congressional offices, is sort of the most important
21 issue that has come up, in her opinion, that precludes
22 this from actually making any sense for this pipeline
23 to be sited so close to Indian Point.

24 It is really a great and dire concern for
25 her and for the safety and well-being of the

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1 constituents she represents in the 95th Assembly
2 District, which includes Montrose, Buchanan, the Town
3 of Cortlandt, Croton, Peekskill and many of the other
4 areas that would be directly impacted by any sort of
5 rupture or an issue with the gas line that would impact
6 Indian Point. So she really wants to make sure that
7 some sort of analysis, an independent assessment of the
8 analysis with cooperation of these types of experts be
9 undertaken and either looking at again -- once again
10 either looking at what's already been done with these
11 experts or starting from scratch and undertaking
12 something that's truly independent. That's
13 it.

14 MR. KUPREWICZ: I might just want to
15 interject here a process risk analysis doesn't take like
16 man months, so that's just the basic --

17 (Simultaneous speaking)

18 PARTICIPANT: Sir, could you state your
19 name?

20 MR. KUPREWICZ: -- probably thinks this
21 is --

22 MS. LEVENBERG: I don't know what that
23 means.

24 MR. KUPREWICZ: It's something that you
25 get the right players in a room and they're cooperative

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1 and open. Then you can get there fairly quickly. It
2 doesn't take weeks. It doesn't even take a day if you
3 really get the right people together.

4 MS. LEVENBERG: I'm sorry. Who's
5 speaking?

6 MR. KUPREWICZ: Nor am I advocating that it
7 has to be me. I'm not --

8 MS. LEVENBERG: Oh, is this Rick? Is this
9 Rick? I didn't know who was speaking. Okay.

10 MR. KUPREWICZ: Oh, I'm sorry. I don't --

11 MS. LEVENBERG: It's Rick.

12 MR. KUPREWICZ: -- the problem with cell
13 phones.

14 MS. LEVENBERG: Yes.

15 MR. KUPREWICZ: This is Rick Kuprewicz.

16 MS. LEVENBERG: Okay.

17 MR. KUPREWICZ: So, the right players in a
18 room, including the Government folks, if they want to
19 be there, you get the right questions addressed with the
20 right information and then that hazard analysis or
21 something like that can go very quickly. Again though,
22 we know that some of this will be hypersensitive, and
23 so everybody has to respect that, too. Anyway --

24 (Simultaneous speaking)

25 MR. BLANCH: And I think it's safe to say

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1 -- this is Paul Blanch -- safe to say that, speaking for
2 myself, we would more than be willing to involve the
3 experts from the NRC, the experts from Spectra and from
4 Entergy such that we could hear all sides.

5 MR. KUPREWICZ: Fair call.

6 MS. GLIDDEN: This is Susanna Glidden.
7 Congresswoman Lowey's aid is ready to say something,
8 too.

9 MS. LEVINE: Well, actually, thank you,
10 but this is Sara from Congresswoman's Lowey's office,
11 Sara Levine, L-E-V-I-N-E. I am unfortunately not
12 making a statement today. I'm here just to listen and
13 observe. But thank you.

14 MS. GLIDDEN: Well, thank you, Sara.

15 MR. BLANCH: Dave Lochbaum, do you have any
16 comments?

17 (No audible response)

18 MR. BLANCH: I guess not.

19 CHAIRMAN MILLER: Thank you, Paul. Is
20 there any other information you want to pass before I
21 ask the Panel and those listening in if they have any
22 questions?

23 MR. BLANCH: Yes, there's one other
24 statement that I want to make. Again, my petition is
25 alleging wrongdoing on behalf of Entergy in submitting

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1 inaccurate incomplete information, and it appears to me
2 the NRC has already made a determination in its
3 inspection report that this information is accurate.
4 And how can we be assured of an independent assessment
5 of this petition if it's the same chain of command that
6 has already approved and said this information is
7 accurate? That's an outstanding question and I'm not
8 sure how we can get true independence. And according
9 to Management Directive 8.11; and I know there was
10 someone from the Office of Investigation, if there is
11 an allegation of wrongdoing, which there is, the Office
12 of Investigations has to be heavily involved with this
13 assessment of the 2.206 petition.

14 CHAIRMAN MILLER: So, Paul, this is Chris
15 Miller, and I just wanted to give you my short discussion
16 of one of the things that the Panel is going to consider
17 is if there's any allegations that we need to look at
18 and move forward, if we move forward with any
19 allegations from the material provided, the Office of
20 Investigations will be a part of that, will be in on
21 those discussions. That's how we do it in our normal
22 allegation process. So the 2.206 Board will actually
23 look and see if there are any new allegations that come
24 up as a result of this.

25 MR. BLANCH: And I personally am not

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1 advocating the treatment of this 2.206 as an allegation.

2 CHAIRMAN MILLER: Okay. Thank you.
3 Anything else that you want to provide to the Board
4 before we go around for questions?

5 MR. BLANCH: I think again I'd like to
6 reemphasize the possibility of an independent analysis
7 which would include the parties that I mentioned before
8 and some process where we could sign some type of
9 confidentiality agreement to have access to the
10 information that the NRC has restricted.

11 And the other question I have is for this
12 three-minute isolation time. In the response to my
13 FOIA request the references were not redacted, however,
14 there was no reference to how this three-minute time was
15 come up with, and I would like to see the reference for
16 how the NRC determined that the three-minute time is
17 sufficient.

18 CHAIRMAN MILLER: Okay. I've got that
19 note. Let me ask around the table here at headquarters
20 first. Is there anyone that has questions for Mr.
21 Blanch or any of the presenters?

22 (No audible response)

23 CHAIRMAN MILLER: Seeing none, anybody
24 from the regions?

25 MR. SETZER: Thank you, no, Chris.

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1 CHAIRMAN MILLER: Okay. Anyone from
2 members of the public that have questions for Mr.
3 Kuprewicz or Mr. Blanch or the presenters?

4 MS. VAN DOLSEN: This is Susan Van Dolsen.
5 I'm a member of the public. I just was wondering about
6 the precedent. There was evidently some sort of
7 independent risk assessment done for the Vermont Yankee
8 plant in 2008. And so there was something
9 commissioned. I think it was through the State of
10 Vermont. Would it require like someone at the state
11 level to do this, or is this something -- I just was
12 curious as how to proceed forward if you were not willing
13 to do it, if there's another way we could try to go
14 forward.

15 MR. PICKETT: Can you help us out? Are you
16 talking about a natural gas pipeline at Vermont Yankee
17 or something --

18 MS. VAN DOLSEN: No, an assessment. Just
19 an independent assessment. There was a team put
20 together. So there's a precedent for putting together
21 an assessment.

22 MR. BLANCH: I think it was called the CVA,
23 and it's some vertical assessment that was done at
24 Vermont Yankee. And there was also one done at Indian
25 Point at the request of Senator Clinton and other

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1 Congressional reps, again back in the same time frame,
2 2008-2010. So this request for an independent
3 assessment is not without precedence.

4 MS. VAN DOLSEN: And have any been done
5 near a gas pipeline? So, that's another question. I
6 see this one, but I don't know if there has been an
7 assessment independently done to do a risk assessment
8 near a natural gas pipeline.

9 MR. BLANCH: The only one I could think is
10 the one that was conducted by AREVA in Eunice, New Mexico
11 maybe five, six years ago for a 16-inch line operating
12 at 50 pounds. I have a copy of that assessment that was
13 done.

14 MS. VAN DOLSEN: And how many nuclear
15 plants operate near a gas pipeline in the proximity of
16 the one that we're talking about in this case?

17 MR. BLANCH: Well, the closest one, even
18 closer than Indian Point, is Turkey Point, which has
19 never been analyzed.

20 CHAIRMAN MILLER: So I'm going to try to
21 turn our direction back towards what we're trying to do
22 in this call -- is to try to get any additional
23 information for the Panel to consider in their
24 deliberations. So I would ask is there any other
25 questions that we want to ask of those who presented that

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1 the Panel should consider for this issue?

2 MS. LEVENBERG: I'm sorry. This is Dana
3 again from Assemblywoman Sandy Galef's office, and I
4 just wanted to point out that we had received a response
5 from the NRC related to the technical basis behind the
6 assumptions that valves will close an isolated gas leak
7 within three minutes, and that came directly from
8 Resource Report 11, Reliability and Safety, filed with
9 FERC by Algonquin in February of 2014 related to the AIM
10 project. And it was Section 11.4.3.2. And it was
11 specifically again from Algonquin. That was where it
12 came from. And it was specifically about the pressure
13 drops that would be noted from the remote -- the gas
14 control center in Houston, Texas. And again, that was
15 provided to me by the NRR office, by Doug Tifft at the
16 NRC.

17 So again, I think that we continue to have
18 concern based on Mr. Kuprewicz' review of this
19 three-minute assumption that is so critical because it
20 came from Algonquin, or Spectra, I guess.

21 MR. BLANCH: And that three-minute
22 assumption is what they are basing this safety of Indian
23 Point upon.

24 MS. LEVENBERG: Right.

25 MR. KUPREWICZ: Yes, this Rick Kuprewicz.

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1 And it kind of gets down to -- if I recall -- again, I
2 look at a lot of gas pipelines, but even if you close
3 the valve in three minutes, which you will not, because
4 a transient study for rupture in this particular
5 location will clearly indicate that that's not the case
6 -- even if you were to close those valves, it is still
7 going to burn for many minutes at high heat flux, because
8 that's what the laws of science, the laws of
9 thermodynamics will dictate. If I recall, the valve
10 spacings are 15 miles. If you have 15 miles of
11 high-pressure gas pipeline, it's not going to go to zero
12 pressure. It's going to burn for a long time at high
13 heat flux.

14 So, if I were to comment on this, what the
15 NRC has to think about is what is the actual -- the
16 transient dynamics of a pipeline rupture in this
17 location approximately three miles away from a
18 compressor station and how long will this burn at heat
19 fluxes that can affect equipment? End of subject.

20 It isn't I can close the valves in three
21 minutes. It might be 20 minutes before you recognize
22 that. So, that's the fundamental issue that you folks
23 have to see if someone has done that.

24 MR. PICKETT: This is Doug Pickett again.
25 When you first started your presentation I thought I

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1 heard you say something like the fellow who's going to
2 be in Houston monitoring the pressure would not see a
3 pressure drop if a pipe ruptured, and I was a little
4 confused on that. Can you go into that again? What
5 would he see?

6 MR. KUPREWICZ: Yes, most likely he's in
7 the control room getting all kinds of alarms. If you've
8 ever -- well, you guys have NRC control rooms, but
9 pipelines get a lot more alarms. And so he's got to
10 figure out how he's monitoring this and checking on
11 this, and he may get an alarm. He may say, hey,
12 something has changed, but I don't know what it is. But
13 for a rupture release in which you've blown these pipes,
14 the 42-inch pipe is going to shrapnel and come out of
15 the line, out of the ground. Big crater. Huge gas
16 velocities.

17 But the laws of thermodynamics dictate the
18 rate at which the gas can be released out the full-bore
19 ruptures from both ends. Okay? And that's limited to
20 the speed of sound of the gas, the speed of the sound
21 of the gas within the gas. Not in air. So it's
22 roaring. But it limits the mass rate. It limits how
23 much it releases.

24 So bottom line is in layman's terms the
25 pressures don't drop as fast as you'd think. It's not

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1 a balloon burst.

2 MR. PICKETT: Okay.

3 MR. KUPREWICZ: And if you close the valves
4 and they're 15 miles apart, there are plenty of
5 documents in the public domain that will show you it
6 takes many, many minutes before the flames really start
7 to decline. And so the real issue here is if you get
8 a gas pipeline rupture, how long will this burn at heat
9 fluxes that can affect equipment that is important? If
10 the answer is there's no equipment there, then that's
11 fine. Move on. But from what I'm seeing, that's not
12 necessarily the case.

13 MR. BLANCH: And adding to that, NRC
14 regulations dictates that we have to assume a single
15 failure at the valve --

16 (Simultaneous speaking)

17 MR. KUPREWICZ: Yes, let me also point out
18 to the NRC, don't feel like anybody's criticizing you
19 folks because you don't understand this stuff. There
20 are gas pipeline operators that we have to sit in a room
21 and great detail and explain this. And they're closer
22 to this and they don't get it until someone shows it to
23 them. So don't think like I'm saying, oh, you missed
24 this and it's your fault. That's not what I'm doing
25 here. Please.

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1 CHAIRMAN MILLER: Thank you. I wanted to
2 ask is there anyone from the Licensee that would like
3 to ask any questions of the presenters?

4 MR. WALPOLE: No, thank you, Chris.

5 CHAIRMAN MILLER: Okay. Any other
6 questions, concerns? Did I go to the regions?
7 Anything from the region?

8 (No audible response)

9 CHAIRMAN MILLER: Okay. Good. Well, I
10 --

11 MR. BLANCH: And how long can we expect to
12 have to wait for a transcript of this session?

13 MR. PICKETT: Doug Pickett here again.
14 We've requested the transcript to be within a week, so
15 then we have to review the transcript and make sure it's
16 accurate. And hopefully within a few weeks you'll be
17 able to see the transcript.

18 MR. BLANCH: Okay.

19 CHAIRMAN MILLER: Okay. Do you another
20 question, Mr. Blanch?

21 MR. BLANCH: No, that's all I have.

22 CHAIRMAN MILLER: Okay. Well, I wanted to
23 thank you and Mr. Kuprewicz. Good informative session.
24 I got a lot of information covered. So thanks for
25 taking your time. We'll continue with our process.

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1 Before we close, does the court reporter
2 need anything additional before we close the meeting,
3 close the transcript?

4 COURT REPORTER: Yes. Mr. Kuprewicz,
5 could you spell your last name for me?

6 MR. KUPREWICZ: Gee, I've never been asked
7 that before.

8 MR. BLANCH: Yes. Right.

9 MR. KUPREWICZ: It's K-U-P-R-E-W-I, C as
10 in cat, Z as in zebra.

11 COURT REPORTER: Got it. That's all.

12 (Whereupon, the above-entitled matter went
13 off the record at 3:34 p.m.)

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