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RE Braidwood/Byron

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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:

BRAIDWOOD/BYRON

+ + + + +

WEDNESDAY

MAY 16, 2012

+ + + + +

The conference call was held, Bill Ruland, Chairman of the Petition Review Board, presiding.

PETITIONER: BARRY QUIGLEY

PETITION REVIEW BOARD MEMBERS:

BILL RULAND, PRB Chairman and Director,
NRR/DSS

JOEL S. WIEBE, Petition Manager for 2.206
Petition

LEE BANIC, PRB Coordinator, NRR/DPR

ERIC DUNCAN, Region III, Branch Chief,
Division of Reactor Projects

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1 ED SMITH, NRR/DSS, Balance of Plant Branch

2 PREM SAHAY, NRR/DE, Electrical Engineering

3 Branch

4 AHSAN SALLMAN, NRR/DSS, Containment and

5 Ventilation Branch

6 ALEXANDER TSIRIGOTIS, NRR/DE, Mechanical and

7 Structural Engineering Branch

8

9 NRC HEADQUARTERS STAFF:

10 MICHELLE ALBERT, Office of General Counsel

11 LAUREN CASEY, Office of Enforcement

12 NICOLE COLEMAN, Office of Enforcement

13 KIMYATA MORGAN BUTLER, NRR/DPR/Generic

14 Communications Branch

15 JAKE ZIMMERMAN, NRR/DORL

16

17 NRC REGION III STAFF:

18 BRUCE BARTLETT, Senior Resident Inspector,

19 Byron Generating Station

20 TRAVIS DAUN, Resident Inspector's Office,

21 Byron Generating Station

22 RAYMOND NG, Project Engineer

23 JOHN ROBBINS, Resident Inspector, Byron

24 Generating Station

25

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1 JAMIE BENJAMIN, Senior Resident Inspector,
2 Braidwood Generating Station

3 ALEX GARMOE, Resident Inspector, Braidwood
4 Generating Station

5

6 ALSO PRESENT:

7 TOM COLE, Braidwood Generating Station,
8 Engineering Staff

9 DAN ENRIGHT, Braidwood Generating Station,
10 Site Vice President

11 AMY FERKO, Braidwood Generating Station, Site
12 Engineering Director

13 MARK KANAVOS, Braidwood Generating Station,
14 Plant Manager

15 CHRIS VANDENBURGH, Braidwood Generating
16 Station, Regulatory Assurance Manager

17 DAVE GUDGER, Byron Generating Station,
18 Regulatory Assurance Manager

19 TRACY HULBERT, Byron Generating Station,
20 Regulatory Assurance

21 CHUCK KELLER, Byron Generating Station, Acting
22 Design Manager

23 DAVE GULLOTT, Exelon Corporate Licensing

24

25

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MIKE PERRY, Illinois Emergency Management
Agency, Resident Inspector for Braidwood
Generating Station

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

(10:05 a.m.)

MR. WIEBE: My name is Joel Wiebe. I am the Braidwood and Byron Stations Project Manager.

This is the Petition Review Board discussion with the Petitioner of the 2.206 petition dated April 20, 2012.

The Petition Manager for the petition -- the Petition Review Board Chairman is Bill Ruland.

And one thing, could I ask the ones who aren't talking to go on mute, and then go off mute when you want to say something?

As part of the Petition Review Board's review of this petition, the Petitioner, Barry Quigley, has requested this opportunity to address the PRB. The meeting is scheduled from 10:00 to 11:00 Eastern Time. The meeting is being recorded by the NRC Operations Center and is also being transcribed by a Court Reporter.

The transcript itself will become a supplement to the petition, and the transcript will be made publicly available.

I would like to open this meeting with introductions, and we will go around the room in headquarters first. I would like to ask you to

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1 clearly state your name, your position, and the office
2 you work for within the NRC.

3 I will start off. My name again is Joel
4 Wiebe. I am a Project Manager with NRR.

5 MR. SALLMAN: My name is Sallman. I work
6 with the Containment -- my position is Reactor Systems
7 Engineer, and I work for the Division of Safety
8 Systems in the Containment and Ventilation Branch.

9 MS. BUTLER: Kimyata Morgan Butler in the
10 Division of Policy and Rulemaking in NRR. I'm the
11 Acting Branch Chief of the Generic Communications
12 Branch.

13 MS. COLEMAN: I'm Nicole Coleman, an
14 Enforcement Specialist in the Office of Enforcement.

15 MS. CASEY: I'm Lauren Casey, an
16 Enforcement Specialist in the Office of Enforcement.

17 MR. SAHAY: I'm Prem Sahay, P-R-E-M, S-A-
18 H-A-Y. I'm an Electrical Engineer, work for NRR,
19 Electrical Engineering Branch.

20 MR. TSIRIGOTIS: Alexander Tsirigotis,
21 Division of Engineering, Mechanical and Structural
22 Engineering Branch.

23 MR. DUNCAN: And in Region III, my name is
24 Eric Duncan. I am the Branch Chief for Branch III BRP
25 for Byron and Braidwood. And also, Raymond Ng is

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1 here, and he is the Project Engineer for Branch III.

2 MR. BARTLETT: This is Byron Resident
3 Office. We've got Bruce Bartlett; I'm the Senior
4 Resident. We've got John Robbins; he is the Resident.
5 And we have Travis Daun.

6 MR. BENJAMIN: At the Braidwood resident
7 inspector office we have Jamie Benjamin, the Senior
8 Resident; Alex Garmoe, the Resident Inspector; and we
9 also have Mike Perry with the Illinois Emergency
10 Management Agency. He is the Resident Inspector of
11 Braidwood.

12 MR. SMITH: Here at headquarters, this is
13 Ed Smith, DSS, Balance of Plant Branch.

14 MR. ZIMMERMAN: Jake Zimmerman, Branch
15 Chief, Division of Operating Reactor Licensing.

16 MS. ALBERT: Michelle Albert, Attorney in
17 the Office of General Counsel.

18 MS. BANIC: Lee Banic, 2.206 Petition
19 Coordinator, NRR.

20 MR. RULAND: Bill Ruland, Director of the
21 Division of Safety Systems in NRR, and the PRB Chair.

22 MR. WIEBE: Okay. That completes the
23 introductions at NRC headquarters and the other NRC
24 participants. Is there any other NRC participants
25 that have not introduced themselves?

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1 (No response.)

2 Okay. Are there any representatives from
3 the licensee on the phone?

4 MR. ENRIGHT: Yes. This is Dan Enright at
5 Braidwood Station. I'm the site Vice President. With
6 me are Mark Kanavos, Plant Manager; Chris Vandenburg,
7 Regulatory Assurance Manager; Amy Ferko, Site
8 Engineering Director; and Tom Cole of our engineering
9 organization.

10 MR. GUDGER: This is Dave Gudger at the
11 Byron Nuclear Station. I'm the Regulatory Assurance
12 Manager. I have with me Chuck Keller, Acting Design
13 Manager; and Tracy Hulbert, Regulatory Assurance.

14 MR. GULLOTT: This is Dave Gullott, Exelon
15 Corporate Licensing.

16 MR. WIEBE: Okay. Mr. Quigley, would you
17 introduce yourself for the record?

18 MR. QUIGLEY: Yes. My name is Barry
19 Quigley, Q-U-I-G-L-E-Y.

20 MR. WIEBE: Okay. Thanks. It is not
21 required for members of the public who may be on the
22 phone to introduce themselves for the call. However,
23 if there are any members of the public on the phone
24 who do wish to introduce themselves, please do so at
25 this time.

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1 (No response.)

2 Okay. Hearing none, I would like to
3 emphasize that we each need to speak clearly and
4 loudly to make sure the Court Reporter can hear you
5 and accurately transcribe the meeting. Also, first
6 state your name before you say something. That way
7 the Court Reporter knows who to attribute the comment
8 to.

9 For those who are dialing into the
10 meeting, please remember to mute your phones to
11 minimize the background noise. If you do not have a
12 mute button, you can mute by pressing the keys star
13 and then six. To unmute, you can press the star six
14 key again. Thanks.

15 At this time, I will turn it over to the
16 PRB Chairman, Bill Ruland.

17 MR. RULAND: Thank you, Joel. Good
18 morning. Welcome to this meeting regarding the 2.206
19 petition submitted by Mr. Quigley.

20 I would like to first share some
21 background for our process. Section 2.206 of Title X
22 of the Code of Federal Regulations describes the
23 petition process "the primary mechanism for the public
24 to request enforcement action by the NRC." It is a
25 public process.

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1 This process permits anyone to petition
2 NRC to take enforcement-type action related to NRC
3 licensees or licensed activities. Depending on the
4 results of this evaluation, NRC could modify, suspend,
5 or revoke an NRC-issued license, or take any other
6 appropriate enforcement action to resolve a problem.

7 The NRC staff's guidance for the
8 disposition of a 2.206 petition request is in
9 Management Directive 8.11, which is publicly
10 available.

11 The purpose of today's meeting is to give
12 the Petitioner an opportunity to provide any
13 additional explanation or support for the petition
14 before the Petition Review Board's initial
15 consideration and recommendation. This meeting is not
16 a hearing, nor is it an opportunity for the Petitioner
17 to question or examine the PRB on the merits of the
18 issues presented in the petition request.

19 No decisions regarding the merits of this
20 petition will be made at this meeting. Following this
21 meeting, the Petition Review Board will conduct its
22 internal deliberations. The outcome of this internal
23 meeting will be discussed with the Petitioner
24 subsequently.

25 The Petition Review Board typically

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1 consists of a Chairman, usually a manager at the
2 senior executive level at the NRC. It has a Petition
3 Manager and a PRB Coordinator, who already have
4 introduced themselves. Other members of the Board are
5 determined by the NRC staff based on the content of
6 the information in the petition request.

7 First, I would like to introduce the
8 Board. Of course, myself, Bill Ruland, I am the
9 Petition Review Board Chairman. Joel Wiebe, who is --
10 who gave us the introduction, is the Petition Manager
11 for the petition under discussion today. Lee Banic is
12 the office's PRB Coordinator.

13 Our technical staff includes, but is not
14 limited to, Ed Smith, who is in the Balance of Plant
15 Branch in the Division of Safety Systems in NRR; Prem
16 Sahay, who is in the Division of Engineering in
17 Electrical Engineering Branch; Alexander Tsirigotis,
18 who is in the Division of Engineering, Mechanical and
19 Civil Engineering Branch; Ahsan Sallman, who is in the
20 Containment and Ventilation Branch in NRR; and Eric
21 Duncan, who is a Branch Chief in Region III in the
22 Division of Reactor Projects.

23 We also obtained advice from the Office of
24 General Counsel, represented by Michelle Albert, and
25 the Office of Enforcement, represented by Nicole

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1 Coleman.

2 As described in our process, the NRC staff
3 may ask clarifying questions to better understand the
4 Petitioner's presentation and to reach a reasoned
5 decision whether to accept or reject the Petitioner's
6 request for review under the 2.206 process.

7 Now, I would like to summarize the scope
8 of the petition under consideration and the NRC's
9 activities to date. On April 20, 2012, Mr. Quigley
10 submitted to the NRC a petition under 2.206 regarding
11 Braidwood Units 1 and 2 and Byron Units 1 and 2.

12 In this petition, Mr. Quigley identified
13 the following areas of concern. He requested that the
14 NRC require Braidwood Units 1 and 2, and Byron Units 1
15 and 2, to be immediately shut down until all turbine
16 building high energy line break concerns are
17 identified, and those important to safety are
18 corrected.

19 As the basis for this request, Mr. Quigley
20 states that the physical layout of the Byron and
21 Braidwood plants exposed both trains of emergency
22 electric power generation, alternating current
23 distribution, ESF batteries, and a direct current --
24 and direct current distribution to the effects of non-
25 safety-related piping failures.

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1 Mr. Quigley states that the design flaw
2 was missed during initial licensing, and the potential
3 to disable multiple trains of safety-related equipment
4 was first identified in 1991. He states that some
5 analysis was performed, but the work stopped far short
6 of a comprehensive review of the HELB, or high-energy
7 line break, regulatory requirements.

8 Mr. Quigley identified the following major
9 issues. One, the emergency diesel generators are
10 affected by H-E-L-B -- I'll use those initials from
11 now on, or HELB -- because steam can enter the
12 emergency diesel generator rooms, the emergency diesel
13 generator room ventilation, and the emergency diesel
14 generator air intakes.

15 Engineered safety features, or ESF
16 switchgear rooms -- this is the second item -- are
17 affected because of the potential of high temperature
18 to alter protective relay set points.

19 Three, the current method of analysis for
20 turbine building HELB uses a lumped volume approach,
21 which substantially reduces energy effects and does
22 not always give conservative results. Preliminary
23 assessment using GOTHIC subdivided volume features
24 shows structural limits substantially exceeded on the
25 block wall between the ESF switchgear rooms.

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1 Four, there has been no structured and
2 detailed review of the licensing requirements
3 regarding impacts on equipment operability for turbine
4 building high energy line break or HELB.

5 Next, I will discuss NRC activities to
6 date. On April 26, 2012, the Petition Manager
7 contacted the Petitioner to discuss the 10 CFR 2.206
8 process and to offer him an opportunity to address the
9 PRB by phone or in person. The Petitioner requested
10 to address the PRB by phone prior to its internal
11 meeting to make the initial recommendation to accept
12 or reject the petition for review.

13 On May 4th, also of this year, the PRB met
14 internally to discuss the request for immediate
15 action. The PRB denied the request for immediate
16 action of shutdown -- excuse me. The PRB denied the
17 request for immediate shutdown of the affected plants,
18 because the licensee had completed an operability
19 determination finding the equipment was operable but
20 degraded.

21 Instead, based on the potential hazardous
22 conditions presented in the petition, we determined
23 that a 10 CFR Section 2.204 demand for information
24 would be initiated for the purposes of determining
25 whether an order under 2.202 should be issued, or

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1 whether other action should be taken.

2 The PRB may stop or continue the
3 processing of the Section 2.204 demand for information
4 based on further internal meetings in accordance with
5 the 2.206 process.

6 On May 14, 2012, the Petitioner was
7 informed of the PRB's decision to deny the request for
8 immediate action.

9 As a reminder for the phone participants,
10 please identify yourself if you make any remarks, as
11 this will help us in the preparation of the meeting
12 transcript that will be made publicly available.

13 Thank you.

14 Mr. Quigley, I will ask you now to provide
15 any information that you believe the PRB should
16 consider as part of its petition. Mr. Quigley?

17 MR. QUIGLEY: Thank you. I will be
18 pausing as I go through to allow for questions, first
19 talking a little bit about the physical layout. At
20 Byron and Braidwood, the turbine building shares a
21 wall with the safety-related aux building. The diesel
22 generators and electrical equipment rooms are located
23 in the aux building, but they have ventilation and
24 personal access openings in a shared wall with the
25 turbine building.

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1 The ventilation for these areas is
2 relatively simple consisting of using fans to blow
3 outside air through the areas. Although the source of
4 the air is a safety-related intake air shaft, the
5 exhaust openings are simply holes in the turbine
6 building wall.

7 As far as the history of HELB, the NRC
8 asked several questions related to HELB outside
9 containment during initial licensing. Additional
10 analyses were done, but neither the NRC or
11 Commonwealth Edison noticed the large openings
12 approximately five foot by five foot between the
13 turbine building and the diesel generator and
14 switchgear rooms.

15 In 1991, the NRC partially noted the
16 potential for a turbine building HELB to effect the
17 diesel generator switchgear and diesel generator.
18 However, the NRC only allowed Commonwealth Edison 90
19 days to reply. Therefore, the analysis done was
20 limited.

21 Basically, the analysis took credit for
22 fire dampers in the turbine building exhaust openings
23 to drop and isolate the areas from the effects of the
24 high energy line break. Credit was also taken for
25 turbine building siding to blow off and relieve the

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1 pressure in the turbine building.

2 Additional work was done in 1996 related
3 to piping break locations. Stress calculations were
4 done to eliminate some locations. In 2011, it was
5 noted that the assumed fire damper drop time was
6 substantially in error. An operability evaluation was
7 completed, which showed acceptable temperatures based
8 on more thermal hydraulic analyses that were done.

9 I note that Mr. Ruland stated that the
10 immediate request was denied in part on the presence
11 of the op eval. I did not have that information prior
12 to today. Basically, I wrote the op eval. The only
13 thing that the Byron op eval addresses is fire dampers
14 taking too long to drop.

15 MR. RULAND: Mr. Quigley, I've got a
16 question for you.

17 MR. QUIGLEY: Certainly.

18 MR. RULAND: Since you wrote the original
19 operability evaluation, and apparently determined that
20 the equipment was operable but degraded, what has
21 changed from the time you wrote and signed off on that
22 operability evaluation and the present time?

23 MR. QUIGLEY: The operability evaluation
24 only dealt with the fact that the fire dampers take
25 too long to drop. That's all it deals with. I had

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1 this information at the time, but I could not show
2 operability.

3 MR. RULAND: So you didn't include this
4 other information in the op eval, nor did you write a
5 non-conformance or a condition report, whatever you
6 call it at those stations, at that time?

7 MR. QUIGLEY: I made my management aware
8 of -- my engineering management aware of the technical
9 concerns I had.

10 MR. RULAND: Okay. Thanks.

11 MR. QUIGLEY: Yep. Talk a little more of
12 the history and a little bit more of the structural
13 layout. So the basic high energy line break concern
14 is that we have a non-safety-related steam or feedline
15 rupture in the turbine building, pressurized within
16 the turbine building. And since these diesel rooms
17 and switchgear rooms are connected, the adverse
18 environment for the turbine building can propagate
19 into the safety-related areas.

20 So we had recognized that at some point.
21 However, as I looked at it in more detail, that's
22 where these additional issues under the basis of
23 request come from.

24 Well, the first one I want to talk about
25 is the combustion air for the diesel generator. As I

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1 said, the ventilation for this system is relatively
2 simple. For temperature control, it relies on a
3 recirculation mode. Basically, when it is hot air
4 outside or hot in the diesel room, it draws air in
5 through the intake shaft, through a fan, and out
6 through a hole in the turbine building wall.

7 If the temperatures are cooler, there is
8 a recirculation damper that opens up. And what that
9 recirculation damper does is allows the fan to
10 basically isolate the outside air path and just
11 recirculate air through the room. It is that
12 recirculation path that is of concern for combustion
13 air.

14 When the turbine building pressurizes, and
15 then the pressure comes in and steam comes into the
16 diesel generator room, the damper configuration can be
17 such that steam flows back into the intake air shaft.
18 The diesel generator combustion air supply is located
19 approximately eight feet from that point. So the
20 concern would be that the diesel, when it is either
21 trying to start or already running, could draw in some
22 steam that is coming through this other path.

23 Now, that is very difficult to visualize
24 perhaps. So if there is any questions on how that is
25 laid out, I will take them right now.

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1 (No response.)

2 Okay. Hearing none, I will move on. So
3 potentially, instead of having 100 percent air, the
4 diesel generator could be trying to run or start on a
5 steam air mixture. And we have not undertaken to find
6 out the capability of the engine to do so, nor have we
7 undertaken to find out how much steam will actually
8 get to that location.

9 Also, as I was thinking further about
10 this, the turbocharger on the diesel engine could also
11 be at risk, because now we have a pressurized air
12 intake, if you will. So that could raise concerns
13 with the ability of the turbocharger to carry that
14 additional bus load.

15 The next item I had was that the effects
16 of high temperature in the switchgear rooms on the
17 protected relay has not been evaluated.

18 We did look at motor control centers.
19 However, the four kV switchgear was not rigorously
20 looked at. So the concern would be that the
21 temperature effects could cause the relays to fail to
22 actuate when desired or the relays could actuate
23 earlier than desired.

24 We have not fully considered the
25 environment in the switchgear room, including the

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1 pressurization effects. These relays have glass
2 covers on them. If the pressurization breaks the
3 glass, it follows the relay. We have not considered
4 any of that.

5 The next item is related to the modeling.
6 The way that a high energy line break outside
7 containment has been modeled in the past, both at
8 Byron and other utilities, is with a lumped volume
9 approach. I paused when I said that because there is
10 no NRC approved methodology for calculating pressures
11 and temperatures for HELB's offsite containment.

12 So as I was looking at the lumped volume
13 approach, I created a side model, if you will, and
14 started looking at the effects of subdivided volumes,
15 where the area is divided up into a much finer mesh.
16 When I did that, I got results that were contrary to
17 those in the model currently in progress.

18 What I was focusing on was the switchgear
19 rooms. Our switchgear rooms -- Alpha and Bravo
20 Divisions -- are located adjacent to each other and
21 are separated by a block wall. Early on in the HELB
22 reconstitution we noted that that block wall had very
23 little margin in it, and there were concerns that we
24 could exceed the structural limits on the wall.

25 We resolved that in the main part of the

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1 project separately. However, when I looked at it
2 under a subdivided approach, we would exceed the
3 structural capability on that wall by about a factor
4 of three. So the subdivided approach yields more
5 accurate results and unacceptable results.

6 MR. RULAND: Just hold on a second, Mr.
7 Quigley.

8 MR. QUIGLEY: Yep.

9 MR. SALLMAN: This is Ahsan Sallman from
10 the Containment and Ventilation Branch. I understand
11 that you did a subdivided approach. Could you explain
12 more about this? How many divisions for the lumped
13 model, and what was the outcome of that?

14 MR. QUIGLEY: For the model that Exelon is
15 currently working on, the 426 elevation is about 1.3
16 million cubic feet. I divided that up into six
17 smaller lumped volumes, and then the area in front of
18 the switchgear rooms is approximately 110 feet by 45
19 feet. I divided that up into about 800 sub-volumes.
20 And then, I also modeled the switchgear rooms as
21 subdivided volumes, with connections into the turbine
22 building.

23 So what I saw there was, if I put a break
24 outside of that subdivided volume, as the pressure --
25 as the whole model pressurizes, the pressure moves

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1 into the subdivided volume, and it reaches one of the
2 switchgear rooms before it reaches the other, and then
3 it starts to pressurize that room.

4 And then, several milliseconds later, the
5 other room starts to pressurize. And then, after a
6 period of time, the pressures in the rooms --
7 switchgear rooms stabilized. And then, when the
8 turbine building siding blows off, and the model
9 depressurizes, the rooms do not depressurize at the
10 same rate.

11 So, again, there is depressurization of
12 the building. We get another excessive differential
13 pressure across the switchgear room wall.

14 MR. SALLMAN: You said there were six
15 smaller lumped volumes for -- which building was that?

16 MR. QUIGLEY: For the 426 elevation of the
17 turbine building.

18 MR. BARTLETT: Hey, Barry, this is Bruce
19 Bartlett.

20 MR. QUIGLEY: Yes.

21 MR. BARTLETT: Wouldn't that also work if
22 the dampers in one of the switchgear rooms worked and
23 the dampers in the other switchgear room had your
24 single failure and didn't work? You can generate a
25 differential pressure across the wall that way also?

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1 MR. QUIGLEY: Yes. With that -- those
2 other dampers that we are considering putting in.

3 MR. BARTLETT: Thank you.

4 MR. QUIGLEY: Right. That is one of the
5 problems that we are trying to work through on the
6 dampers we're putting in. The scenario that I am
7 talking about right now exists today independent of
8 any damper installation.

9 Now, again, this is the first thing I
10 looked at with the subdivided model. So I would
11 anticipate that a further subdivided model would
12 uncover further non-conservatisms. I have looked at
13 this particular one enough to be confident that
14 modeling-wise there is not a whole lot that can be
15 done to make it better.

16 Were there any other questions on the
17 modeling aspects?

18 MR. BARTLETT: No, not from here, from
19 headquarters.

20 MR. QUIGLEY: Thank you.

21 MR. RULAND: Mr. Quigley, why don't we --
22 because I -- you know, we -- I would like to see if we
23 can finish this meeting today on time. And if we need
24 further time, we will have to just reschedule and have
25 another phone call.

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1 But so why don't you just kind of go
2 through your entire list right now, and then we will
3 come back and ask questions. How does that sound?

4 MR. QUIGLEY: Well, that's fine. But I've
5 only got one more item on the list.

6 MR. RULAND: Oh. Then, I guess that's
7 easy.

8 MR. QUIGLEY: Right. The next one is that
9 there has been no structured and detailed review of
10 the licensing requirements for HELB. As I said
11 earlier, HELB got missed during initial licensing.

12 When the issue was identified by the NRC
13 in 1991, the company responded. The NRC's followup
14 inspection was not a licensing type of review. It
15 just looked at the response and accepted the response.
16 So in 1991 we had a chance and didn't get there.

17 In '96, it was looked at a little bit
18 further, but only for piping stresses. In 2001, we
19 looked at the HELB issue again, and that is when we
20 found out that the fire damper assumption -- the fire
21 damper drop time assumption was in error.

22 We did a lot of work, but we have still
23 not done a structured review of HELB. We have not
24 picked up the standard review plan, gone through it
25 line by line, and found all of the problems.

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1 MR. RULAND: Mr. Quigley, could you --
2 would it be possible, since it might help us expedite
3 our actions on this, to provide those references? You
4 talked about '91 and --

5 MR. QUIGLEY: Yes.

6 MR. RULAND: -- '96, and, you know,
7 several inspection reports. If you could provide
8 those references to us, it would be helpful.

9 MR. QUIGLEY: I can do that.

10 MR. RULAND: And he would provide them
11 through to you, Joel?

12 MR. WIEBE: Yes, right.

13 MR. RULAND: Okay. Okay. Continue.

14 MR. QUIGLEY: I would also note that the
15 licensee has entered the items of my petition into the
16 corrective action process. So basically the four
17 bullets of the petition were entered into CAP.

18 I would note that the rationale for
19 acceptability is weak, and at times I feel that the
20 rationale is dismissive. In particular, when it talks
21 about the GOTHIC analysis, it refers to the work I
22 have done as preliminary informal, which is true, but
23 Exelon is making no effort to resolve it. So I feel
24 that by saying it is informal, it is preliminary, that
25 is dismissive.

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1 Also, the IR alludes to a HELB resolution
2 team and a HELB resolution effort. I don't see that.
3 What I see is an organization trying to resolve the
4 minimum amount of possible with high energy line
5 break, so that we can get our MUR approval.

6 So does anybody have any followup
7 questions before I conclude?

8 MR. RULAND: Hold on a second. I've just
9 got a question for the -- you're the Petition Manager,
10 right, Joel? Could you tell us what the status of
11 those MUR approvals are?

12 MR. WIEBE: We are in the latter stages of
13 our review. We have about three safety evaluation
14 inputs left from the tech staff.

15 MR. RULAND: Okay. And they have been in-
16 house about -- what, about a year or so or --

17 MR. WIEBE: For the application?

18 MR. RULAND: Yes.

19 MR. WIEBE: Yes, the year is up in June.

20 MR. RULAND: Okay. I just wanted to get
21 a perspective on where they were. Hold on a second.
22 I'm going to go on mute for a minute.

23 (Pause.)

24 Yes. We were just trying to understand
25 how this fit into MUR issue, and, you know, at this

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1 point it is uncertain. But we understand your point.

2 MR. QUIGLEY: Thank you.

3 MR. RULAND: So any more questions for Mr.
4 Quigley from this room?

5 (No response.)

6 We have no more questions.

7 Any other NRC participants --

8 MR. QUIGLEY: Well, I wasn't quite done
9 yet.

10 MR. RULAND: Oh, I'm sorry. Go ahead.

11 MR. QUIGLEY: That's fine. I have been
12 involved with the turbine building HELB analysis for
13 22 years now. I have struggled to get Exelon to
14 resolve it. I have not been successful.

15 I performed the operability evaluation
16 last year in the hope that that would move us along.
17 I focused the op eval solely on the fire damper delay
18 times. Then, when I was challenged by management to
19 add additional information, I told them that I
20 couldn't because I didn't know that it would support
21 operability.

22 Based on what I know now -- I was an SRO
23 for 15 years, I have been involved in this analysis
24 for 21 years, I have been doing operability
25 evaluations for eight years -- I see no rational basis

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1 to conclude that the diesel generators and the ESF
2 switchgear rooms are operable.

3 That concludes my remarks.

4 MR. RULAND: Thank you, Mr. Quigley. Now,
5 let me ask again, is there any other questions in the
6 room here?

7 (No response.)

8 Any other NRC participants have a
9 question?

10 (No response.)

11 Does the licensee have any questions?

12 (No response.)

13 Hearing none, did we ever establish
14 whether or not there was a member of the public
15 listening in?

16 MR. WIEBE: No. No member of the public
17 spoke up.

18 MR. RULAND: Spoke up. So I will just
19 assume that there was, and I will -- are there --
20 before I conclude this meeting, members of the public
21 may provide comments regarding the petition and ask
22 questions about the 2.206 process.

23 However, as stated in the opening, the
24 purpose of this meeting is not to provide an
25 opportunity for the Petitioner or the public to

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1 question or examine the PRB regarding the members --
2 regarding the merits of the petition request.

3 So are there any members of the public
4 that have a question or comment about the petition
5 process?

6 (No response.)

7 Having heard none, let me just ask a
8 process question. So anything else before we close
9 the meeting? Counsel, do we have anything else?

10 (No response.)

11 Okay. Mr. Quigley, I thank you for taking
12 the time to provide the NRC staff with clarifying
13 information on the petition you have submitted.

14 Before we close, does the Court Reporter
15 need any additional information for the meeting
16 transcript?

17 THE COURT REPORTER: Hello. This is the
18 Court Reporter, and I am going to email Mr. Wiebe, if
19 that is okay with him, to confirm the names of some of
20 the participants.

21 MR. WIEBE: Yes, that's good.

22 THE COURT REPORTER: Thank you.

23 MR. RULAND: Okay. With that, this
24 meeting is concluded, and we will be terminating the
25 phone connection. Again, thank you, everyone, for

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1 participating.

2 (Whereupon, at 10:47 a.m., the
3 proceedings in the foregoing matter were
4 concluded.)

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CERTIFICATE

This is to certify that the attached proceedings
before the United States Nuclear Regulatory
Commission

Proceeding: 10 CFR 2.206 Petition of Braidwood/Byron
by Barry Quigley

Docket Number: n/a

Location: teleconference

were held as herein appears, and that this is the
original transcript thereof for the file of the
United States Nuclear Regulatory Commission taken
and thereafter reduced to typewriting under my
direction and that said transcript is a true and
accurate record of the proceedings.

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Official Reporter
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