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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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INDIAN POINT 2016 ANNUAL ASSESSMENT MEETING

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WEDNESDAY, JUNE 8, 2016

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The meeting was convened in the Grand Ballroom of the DoubleTree by Hilton, 455 South Broadway, Tarrytown, New York, at 7:00 p.m., Brett Klukan, Facilitator, presiding.

PRESENT:

BRETT KLUKAN, Regional Counsel, Region I

GLEN [N] DENTEL, Branch Chief, Division of Reactor Projects

BRIAN HAAGENSEN, Senior Resident Inspector, Indian Point Nuclear Power Point

DAVID LEW, Deputy Regional Administrator, Region I

RAY LORSON, Director, Division of Reactor Safety, Region I

MICHAEL MCCOPPIN, Chief, Radiation Protection & Accident Consequences Branch, Office of New Reactors

JACK MCHALE, Chief, Vessels & Internals Integrity Branch, Office of Nuclear Reactor Regulation

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

2 (7:00 p.m.)

3 MR. KLUKAN: Hello, and welcome, this
4 evening, to the 2016 Indian Point Annual Assessment
5 Meeting. Again, my name is Brett Klukan. Normally
6 by day I'm the regional counsel for Region 1.
7 Tonight, however, I'll be facilitating the meeting.
8 In a couple of minutes, once I finish with my opening
9 remarks, I'm going to turn it over to the NRC staff
10 you see assembled here.

11 After their initial presentation, we'll
12 turn it back over to you for your questions and
13 comments. As noted in the revised meeting notice
14 that we published last week, the NRC staff, in
15 response to comments received from the public,
16 broadened its opening presentation to address several
17 issues of public concern, including baffle bolt
18 degradation.

19 Because we have extended the length of
20 the opening presentation, we've correspondingly
21 adjusted the stated end time for the meeting, which
22 will now be at 9:30. For your awareness, the meeting
23 tonight is being recorded, and a transcript will be
24 generated after the meeting. Both the audio and
25 transcript will be posted to the NRC website, so in

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1 light of that, I ask that when it is your turn to
2 speak that you please identify yourself. I would
3 also ask, for the sake of the audio recording, that
4 people not speak over each other. Here's how the
5 order of public speakers will be determined this
6 evening. At the registration table outside, there
7 are three sign-up lists, one for those who plan to
8 use at least some of their time to speak in support
9 of continued operation of Indian Point, one for those
10 who plan to speak against continued operation, and
11 one for those who don't plan to express a position
12 one way or the other.

13 I will rotate through these three lists,
14 calling people up to the microphone in ascending
15 chronological order, so 111, 222, 333, the same way
16 CNN --- C-SPAN does it, in essence. If you'd like
17 to speak this evening and you've not already done so,
18 please step outside now to add your name to one of
19 those lists, as during the NRC presentation, we will
20 be making copies of those lists for use during the
21 second half or the second portion of the meeting for
22 public comment and question.

23 I would ask that we keep the front area
24 here clear. If you have something to give to the NRC
25 staff, please hand it to me or to Rich Barkley, who

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1 is seated -- maybe not in the room. All right, hand
2 it to me. Now, because of the -- as I noted, the
3 press conferences are still wrapping up, I'm going to
4 break my opening remarks into two halves because I'd
5 like the entire audience to be here for the ground
6 rules. So right now, we're going to go into the NRC
7 opening presentation. Before I go into that, the
8 bathrooms are just straight through those outer
9 doors. The exits are to the back and to the right
10 here -- to my right, your left.

11 While cameras are permitted, please don't
12 obstruct the view of audience members, and please be
13 judicious with the flash. And I would ask all of us,
14 at this time, to please silence your cell phones.
15 I'm not asking you to turn them off; I'm just asking
16 you to put them on silent. Okay, so with that, let
17 me introduce the NRC staff you see assembled here.
18 First, seated in the middle, is David Lew. David Lew
19 is a Deputy Regional Administrator from Region 1.

20 He has been in that position since
21 January 2011. He was appointed to the NRC Senior
22 Executive Service in February 2004. His previous SES
23 assignments include Director, Division of Reactor
24 Projects, and Chief of the Probabilistic Risk
25 Assessment Branch in the Office of Nuclear Regulatory

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1 Research. He is [was] a resident inspector at
2 Ocean [Oyster] Creek and Indian Point Unit 2, and the
3 Senior Resident Inspector at Indian Point Unit 3.
4 Prior to joining the NRC, Dave spent five years in
5 the Navy's Nuclear Power Program as a submarine
6 officer. Seated next to Dave is Ray Lorson. Mr.
7 Lorson is the Director of the Division of Reactor
8 Safety in the NRC's regional home office. He joined
9 the NRC in 1991 as a reactor engineer in Region 1.

10 He subsequently was a resident inspector
11 at Peach Bottom (Inaudible) nuclear power plants, and
12 the Senior Resident Inspector at Seabrook and
13 (Inaudible) nuclear power plants. Prior to joining
14 the NRC, Mr. Lorson also served in the U.S. Navy.
15 Glen [n] Dentel. Mr. Dentel has been a branch chief
16 in the Division of Reactor Projects, Region 1 since
17 2007. He has provided supervision for multiple
18 branches, which have included oversight
19 responsibilities for eight nuclear power sites.

20 Mr. Dentel joined the NRC in June 1994 as
21 part of the Nuclear Safety Professional Development
22 Program in the Office of Nuclear Reactor Regulation.
23 Upon graduation from that, in 1996, he served as a
24 resident inspector at Beaver Valley, and
25 subsequently, the Senior Resident Inspector at

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1 Seabrook. In 2015, he received the meritorious
2 service award for his outstanding career as a field
3 inspector and regional manager. Mr. Michael McCoppin
4 --- he is Chief of the Radiation Protection and
5 Accident Consequence Branch in the Division of Site
6 Safety and Environmental Analysis in the Office of
7 (Inaudible) Reactors. Mr. McCoppin joined the NRC
8 in 2006 as an emergency preparedness specialist in
9 the Office of Nuclear Security and Incident Response.

10 In 2009, he transferred to the Office of
11 Nuclear Reactor Regulation as a senior project
12 manager. In 2010, he was selected as a chief of the
13 planning and scheduling branch in the Division of New
14 Reactor Licensing, in the Office of New Reactors and
15 was later reassigned, in 2012, as a dose assessment
16 team lead for the Division of Site Safety and
17 Environmental Analysis in NRO (Phonetic).

18 Prior to joining the NRC, Mr. McCoppin
19 was a nuclear operator in the U.S. Navy, and also
20 worked in the commercial nuclear power industry.
21 Jack McHale is a chief of the Vessels and Internal
22 Integrity Branch in the NRC's Office of Nuclear
23 Reactor Regulation. Jack joined the NRC in 2006 as
24 a mechanical engineer and previously held Branch
25 Chief positions in (Inaudible) performance and

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1 testing, as well as operator licensing. Prior to
2 assuming his current duties, he was an associate
3 director for technical issues in the Japan Lessons
4 Learned Division, working on the Agency's response in
5 the Fukushima accident. Before joining the NRC, Jack
6 served as a nuclear-trained submarine officer in the
7 U.S. Navy and worked in the nuclear industry as a
8 licensed senior reactor operator and engineering
9 supervisor.

10 Finally, we have Brian Haagensen. Brian
11 has 44 years of nuclear experience, including the
12 current --- in his current position as a senior
13 resident inspector at Indian Point. He has ten years
14 with nuclear submarines in the U.S. Navy. He has 22
15 years in industry, and 11 years with the NRC, in which
16 he has held positions beyond his current as license
17 examiner and resident inspector at Millstone. He is
18 also a captain, retired in the U.S. Navy. And with
19 that, I will turn it over to Dave to begin the NRC's
20 presentation.

21 MR. LEW: Good evening, everyone.
22 Welcome to the annual assessment meeting. Our goal
23 today is to be as brief as practical in our opening
24 remarks. And that's to afford you as much time and
25 opportunity to speak as possible. If there is a

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1 question or a response desired, I and my staff will
2 also be brief in our responses. Again, we are here
3 to listen to your comments. Before we get to your
4 comments and questions, Glen[n] Dentel, on my right,
5 will give a two-minute overview of NRC's assessment
6 of Indian Point's performance in 2015. That will be
7 followed by Ray Lorson, on my left, who will give a
8 two-minute update on tritium at Indian Point. As
9 Brett indicated, there were two topics that were
10 requested. Those topics were of high public
11 interest, namely baffle-former bolts and AIM gas
12 pipeline. Those two topics will be presented, the
13 first by Jack McHale, that's on the baffle bolt issue,
14 and the gas pipeline by Mike McCoppin. So with that,
15 I'm going to turn it right over to Glen[n] Dentel.

16 MR. DENTEL: Good evening. I will
17 provide you a summary of what the NRC has found
18 through its inspection program at Indian Point.
19 Overall, Entergy operated the plant safely and within
20 the condition of their license. Our 2015 assessment
21 is based on over 10,000 hours of independent
22 inspection of how Entergy operated and maintained
23 Indian Point.

24 The NRC has three on-site resident
25 inspectors that observe day-to-day control room

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1 activities, maintenance and testing of safety
2 systems, and response to plant issues. Our
3 specialist inspector from the NRC Region 1 Office
4 also spent many weeks on site looking at areas such
5 as emergency preparedness, radiation safety, fire
6 protection, operator performance, and ongoing
7 inspection efforts in the degradation of
8 baffle-former bolts. Although Entergy operated
9 Indian Point safely, the NRC inspectors did identify
10 some deficiencies or findings. We assess these
11 findings to be of very low safety significance.

12 In other words, these findings did not
13 have any significant effect on public health and
14 safety, and Entergy took timely actions to fix those
15 problems. Our assessment process also includes
16 reviewing performance indicator data to measure
17 things like unplanned shutdowns. For Indian Point
18 Unit 3, the number of unplanned shutdowns exceeded
19 our threshold of greater than three unplanned
20 shutdowns or trips for 7,000 hours of operations.

21 This caused the performance indicator to
22 go from green to our threshold for white. Our process
23 has Unit 3 transitioned to additional oversight based
24 on this white performance indicator. What that means
25 is the NRC will conduct a supplemental inspection at

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1 Unit 3 to ensure that they have fully understood the
2 root causes of the shutdowns, evaluated any common
3 cause between them, and take appropriate corrective
4 actions. All Unit 2 performance indicators continue
5 to remain in the green area. Overall, our conclusion
6 is that Indian Point operated safely and continues to
7 be operated safely. We will provide independent
8 oversight, and have, and will review their actions to
9 address the increase in the number of unplanned
10 shutdowns at Unit 3. I'd like to turn it over to Ray
11 Lorson, who will discuss another area regarding
12 Indian Point.

13 MR. LORSON: Thank you, Glen[n]. Good
14 evening, my name is Ray Lorson, and I will provide a
15 brief update on the status of the tritium leak that
16 occurred at Indian Point. In February of this year,
17 Entergy identified, through routine sampling, that
18 there had been an increase in the tritium
19 concentrations observed from monitoring wells that
20 were located at the Indian Point site.

21 Entergy initiated an investigation and
22 informed the NRC of their results. The NRC conducted
23 an immediate inspection, consisting of our resident
24 inspector support, support from our regional office
25 in King of Prussia, Pennsylvania that included

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1 specialist inspectors in health physics. We were
2 assisted by a hydrogeologist from our Office of
3 Research, and we were accompanied by our partners
4 with the State of New York and the Environmental
5 Protection Agency. The inspection is still ongoing,
6 and we anticipate issuing a report later this year
7 that will confirm the results of our findings. What
8 I can say, to this point, is we believe that the leak
9 has been identified and stopped. That leak was
10 attributed to activities associated with the
11 refueling water storage tank.

12 We have observed Entergy's initial
13 corrective actions, which have included searching for
14 the source of the leakage, trying to identify the
15 pathway, how that leak got out into the environment,
16 as well as actions to provide some maintenance for
17 systems inside the building that are used to process
18 water. Our overall conclusions, at this point, are
19 that this leak presents no impact to public health
20 and safety.

21 We did a very conservative bounding
22 calculation and have determined that the actual dose
23 consequence or hazard from this event would be a small
24 fraction of what's permitted under NRC regulations,
25 and a very, very small, tiny fraction of what all of

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1 us receive every year as normal background radiation.
2 And with that, I would like to turn over the
3 presentation to Jack McHale, who is going to update
4 us on the baffle bolts.

5 MR. MCHALE: Good evening. Again, my
6 name is Jack McHale. I'm from the NRC's Office of
7 Nuclear Reactor Regulation. And again, would just
8 like to turn the discussion to the issue of the bolts.
9 The specific type of bolts that are of interest at
10 Indian Point 2 are known as baffle-former bolts.
11 These bolts, shown on the drawing there, measure about
12 two inches long, and are about five eighths of an
13 inch in diameter.

14 And they hold a series of vertical metal
15 plates, which are labeled as baffle on the drawing,
16 into place inside the reactor vessel. These plates
17 help to direct the water up through the fuel
18 assemblies in the core, and that ensures proper
19 cooling of the fuel. They also provide some lateral
20 restraint to the fuel assemblies within the core
21 barrel.

22 They really are a part of a system that
23 would support the operation of other systems that
24 make sure that the core can be cooled in any normal
25 or emergency operating condition and that a reactor

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1 could always be safely shut down. And on the next
2 slide, you'll see how this assembly fits into the
3 reactor, itself. The baffle plates are shown in
4 purple. And they're attached to eight levels of
5 horizontal plates, and those are called the former
6 plates. Those are highlighted in gray. And those,
7 in turn, are connected to the reactor core barrel.
8 The bolts in question are used to attach these
9 vertical plates to the horizontal plates. Now, this
10 spring, when Indian Point Unit 2 entered its refueling
11 and maintenance outage in early March, one of the
12 planned activities was to perform ultrasonic testing
13 of the plant's baffle-former bolts.

14 Now these inspections were required by
15 the NRC as part of necessary aging-management
16 programs that support license renewal activities.
17 The ultrasonic testing method does not estimate the
18 size of the flaw detected, so any indication is
19 conservatively treated as a failed bolt, even though
20 the bolt may not be cracked all the way through and
21 would still, then, have some load-bearing capacity.
22 Okay, on the next slide, you'll see a sketch of the
23 baffle assembly showing the placement of a fuel
24 assembly.

25 The interior of that baffle would be

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1 packed solid with fuel assemblies when the core is
2 fully loaded. And on the right-hand side, you can
3 just see a close-up of one of the baffle-former bolts.
4 The testing work at Indian Point and other sites
5 across the U.S. was an outgrowth of problems that
6 were noted with the bolts, first actually identified
7 in power plants in France, as far back as the late
8 1980s. And some degradation has also been found more
9 recently in baffle-former bolts in plants in this
10 country. The degradation mechanism is known as
11 irradiation-assisted stress corrosion cracking.
12 Sounds like a lot of words, but it is a known and
13 expected cracking that occurs over a long period of
14 time because the metal is exposed to neutron
15 radiation, which comes from the reactor core, and
16 also stresses that just are part of the normal
17 operation of the plant.

18 Ultrasonic testing, again, is used to
19 determine if any of the stainless steel bolts have
20 developed any signs of degradation and would,
21 therefore, need to be replaced. In response to the
22 expected aging of components, including baffle-former
23 bolts, the Electric Power Research Institute
24 developed a standard industry program for aging
25 management of pressurized water reactor vessel

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1 internals.

2 And they submitted that plan to the NRC
3 back in January of 2009. The NRC staff reviewed the
4 approach and evaluated, in an Agency safety
5 evaluation, in December 2011. And under this
6 industry standard, PWRs, pressurized water reactors
7 like Indian Point Unit 2, would conduct an initial
8 ultrasonic examination of all their baffle-former
9 bolts under the aging management programs as part of
10 license renewal commitments. The next slide's another
11 view illustrating the construction of the baffle
12 assembly. The baffle-former bolts you can see on the
13 left-hand image as those horizontal rows of dots.
14 Those are the bolt heads. In the course of the
15 evaluations at Indian Point Unit 2, it was determined
16 that 227 of the 832 baffle-former bolts in the reactor
17 vessel were potentially degraded.

18 This number includes 14 bolts that could
19 not be properly accessed for testing, so they were
20 conservatively assumed to be failed, and also, at
21 that time, 2 of the 227 bolt heads were observed to
22 be missing. One has been recovered, and for the
23 other, an evaluation was performed to ensure that the
24 unit can safely be operated with the loose part.

25 The number of degraded baffle-former

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1 bolts was the largest seen to date at a U.S. nuclear
2 power reactor, so the NRC is closely monitoring the
3 situation for both Indian Point, and also for any
4 generic implications it may have for the industry.
5 Once the ultrasonic testing was completed at Indian
6 Point, Entergy geared up and began replacing all of
7 the 227 bolts, as well as an additional 51 bolts to
8 help further ensure the structural integrity of the
9 plates. The new bolts are made of a type of stainless
10 steel that is less susceptible to degradation, and
11 they also have an improved design that reduces the
12 stresses that occur at the bolt head. The NRC has
13 closely followed these activities through on-site
14 inspectors, and also using inspectors and staff with
15 expertise in this area. Analysis of the condition
16 was also developed, including for the replacement
17 work, and also for any implication to the
18 baffle-former bolts in Indian Point Unit 3.

19 In the meantime, the company has notified
20 us that it intends to move up its schedule for
21 inspecting the Indian Point Unit 3 baffle-former
22 bolts. Those assessments originally were scheduled
23 for 2019, but they will now be carried out in 2017.
24 We should also note that Indian Point Unit 3 is
25 believed to be less susceptible to the condition for

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1 several reasons, including that it has fewer
2 operational cycles.

3 I'd just like to wrap up by summarizing
4 a few key points. Again, first, the baffle bolts
5 were inspected specifically for the purpose of
6 identifying and correcting degradation, as part of
7 the NRC-required aging management programs.
8 Regarding Unit 2, the NRC has independently reviewed
9 the company's analyses and observed the bolt
10 replacement activities on site at Indian Point. Our
11 inspectors have determined the bolt replacements,
12 including the additional replacement bolts for
13 increased performance, and the technical evaluations
14 are sufficient to demonstrate that the Indian Point
15 Unit 2 baffle-former assembly will perform as
16 intended under the most limiting postulated accident
17 conditions.

18 Regarding the currently operating Indian
19 Point Unit 3, our inspectors have concluded that while
20 the baffle-former bolts are subject to similar
21 conditions, we do not have an immediate safety concern
22 because there are likely fewer baffle-former bolts
23 affected, primarily due to less time in service and
24 the differences in the operating history.

25 There are also no indications of loose

1 parts or fuel leaks, and we continue to review the
2 plant owner's monitoring of plant parameters and
3 their technical evaluations. The results of our
4 inspections will be documented in a publicly
5 available inspection report. And as I previously
6 mentioned, the NRC continues to closely monitor this
7 situation, is alert to potential generic
8 implications, and will be evaluating the need for
9 further regulatory actions.

10 MR. MCCOPPIN: Hello, and good evening.
11 I'm Mike McCoppin, from the Office of New Reactors.
12 I'm going to briefly discuss NRC's involvement with
13 the Algonquin Pipeline. This slide shows where the
14 pipeline is going to be installed in the vicinity of
15 Indian Point. Spectra Energy has received approval
16 from the Federal Energy Regulatory Commission, or
17 FERC, to construct a 42-inch pipeline in the vicinity
18 of Indian Point.

19 FERC approved the project on March 3,
20 2015, and also authorized construction in the
21 vicinity on September 24, 2015. Spectra said it
22 expects the pipeline to be operational later this
23 year. NRC's role is to ensure the pipeline does not
24 impact nuclear safety at Indian Point. The NRC
25 became involved in the review to the extent that

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1 Entergy was required by the NRC to perform an
2 evaluation, whether a rupture to the pipeline could
3 adversely impact the safety or the safe shutdown of
4 two operating reactors.

5 The NRC, though not required, chose to
6 independently conduct an assessment, and also a risk
7 assessment and inspection. Our conclusion, based on
8 a thorough peer-reviewed analysis, was that the plant
9 could safely shut down in the event of a pipeline
10 rupture. Analysis assumed that there was a complete
11 rupture of the pipeline. More specifically we
12 determined that neither a pressure wave, nor a thermal
13 heat flux pipeline rupture would adversely affect
14 safe operation or safe shutdown. Our independent
15 confirmatory analysis resulted in less than one pound
16 per square inch pressure wave, capable of breaking
17 glass, or less than a 12.5 kilowatt per meter squared
18 heat flux, capable of melting plastic at the plant's
19 outer security fencing.

20 Next slide. This is a table that shows
21 both over-pressure and heat flux thresholds and their
22 related consequences. Typically, you can see one
23 pound of pressure is what would shatter glass, and
24 also a thermal heat flux, 12.6, which would melt
25 plastic. The maximum heat flux at the security

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1 government controlled area was about half of that,
2 which melts plastic, which would be tolerable to
3 escaping personnel at that fence.

4 As you can see, there is a considerable
5 amount of safety margin for both, even at the fence,
6 which is 100 feet away from safety-related equipment.
7 Next slide. This slide is an overview of the Indian
8 Point site, which shows both the existing pipelines,
9 which is the blue line, and then the new pipeline's
10 location, which is the green. The new 42-inch
11 pipeline would not be located within the plant's
12 protected area, that has --- which is a high security
13 area, which contains the reactor buildings, spent
14 fuel pools, and other key infrastructures. Instead,
15 it will traverse to the south about 1,500 feet. It's
16 actually greater than that, close to 1,600 feet, about
17 the length of five football fields. It's hundreds
18 of feet from the protected area and robust
19 safety-related equipment.

20 In assessing our models, we also reviewed
21 the results against studies on actual natural gas
22 pipeline explosions. There have been 42-inch
23 pipeline explosions. And these actual --- the impact
24 was significantly less than shown by our models. In
25 a Transportation Safety Board of Canada assessment,

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1 they saw less than 900 feet blast radius for 42-inch
2 line failures. This blast radius was based on the
3 burnt grass from the actual heat flux.

4 The equipment needed to shut down and
5 maintain the plant in a safe shutdown condition is
6 over 1,580 feet away from the new gas pipeline and
7 would not be impacted by the pipeline explosion.
8 There's even a lot more margin between the fence line
9 and the first safety-related equipment, so we're
10 talking roughly 1,900 feet from the pipe to a
11 safety-related piece of equipment. While not
12 required, Spectra is putting in place special
13 precautions to enhance the safety of the piping.
14 This includes steel pipe that is about 40 percent
15 thicker to the area traversing close to the site,
16 about three-quarters inch of steel. It will be
17 buried four feet deep in engineered backfill, and
18 also have additional corrosion protection, and all
19 welds will be carefully examined prior to being
20 buried.

21 Reinforced concrete protective slabs will
22 be also placed on top of the pipe that's closest to
23 the site, as buried, and there will be markers also
24 placed in the ground to prevent any inadvertent future
25 excavation. The map also shows -- like I talked

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1 about before, there is existing pipelines for the
2 blue. There is a 26-inch pipeline, and also a 30-inch
3 pipeline, which have been in operation since 1952 and
4 1965, respectively.

5 Once the 42-inch pipeline is made
6 operational, the 26-inch pipeline is going to be taken
7 out of service. When NRC inspectors went to the site
8 to perform their inspection, they physically walked
9 down where the new pipeline would be laid and built.
10 And what they were doing is they were verifying any
11 of the assumptions made by Entergy in their analysis.
12 And they actually walked down with digital equipment
13 and verified actual distances from the pipe to any
14 safety-related equipment, so the NRC staff can
15 conduct their own independent analysis. They also
16 reviewed the qualifications of the contractor who
17 conducted the company's analysis and whether
18 Entergy's acceptance of the report was consistent
19 with its quality assurance program and standards.
20 So, a few key items from this brief presentation is
21 independent and diverse analysis from Entergy.

22 And NRC, again, said they conducted their
23 own peer-reviewed, independent analysis, along with
24 Department of Transportation also had conducted their
25 analysis. They were all very close and favorable of

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each other. Actual explosions from 42-inch pipelines were confirmed by NRC analysis, and the NRC analysis was much more conservative than those actual explosions. (Inaudible) equipment needed to shut down will remain available during a pipeline explosion. Thank you.

7 MR. KLUKAN: Okay, everyone, I broke down
8 my initial presentation into two halves, so I might
9 stumble here and there trying to remember what I said
10 and what I didn't already, so bear with me. All
11 right, again, for those of you new in the room we are
12 --- the NRC is creating an official recording of this
13 meeting, an audio recording. The audio transcript,
14 unedited, and the written transcript will be posted
15 to the NRC website, where you can -- the same place
16 where you'd find the meeting notice for this meeting.
17 Also, the NRC slide presentation will be posted there,
18 as well. All right, and again, bear with me, lists
19 for speakers, they have now been copied, I have them
20 up here with me. I will rotate through them, calling
21 the first speaker from each one, then the second
22 speaker, and so on.

When I call people to the microphone,
I'll call generally three people at a time, just so
you have a couple minutes to go over to get to the

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1 microphone, and prepare yourself, whatnot. If you
2 need to have a microphone brought to you, please raise
3 your hand at that time, and I'll make sure that either
4 I bring my microphone over to you or another
5 microphone is brought to you, okay.

6 I would ask again that we keep the front
7 area here clear, if you need to bring something or
8 would like to hand something to the NRC staff, please
9 hand it to me. In an effort to give as many people
10 as possible an opportunity to speak this evening,
11 please limit yourself to three minutes when speaking.
12 Know that I am going to hold people to that. Here's
13 how I plan to notify speakers. For those of you who
14 were here last year, you may remember these.
15 Hopefully, I'll hold them right side up this year. A
16 yellow card will be held up when you have one minute
17 left. I did receive some comments last year that
18 speakers often didn't notice that I was holding up a
19 sign, so at the two-minute warning, which is what
20 this represents, meaning you have one minute left,
21 you're also going to hear this. At three minutes,
22 you'll see this sign, and you'll hear the bell twice.

23 You have ten seconds as a grace period to
24 wrap up. At three minutes, ten seconds, I will cut
25 you off. If you're mid-sentence -- I don't --- it

1 doesn't --- regardless of where you are in your talk,
2 you will be cut off. And that is not me trying to
3 be rude. The question is that there are more people
4 here who signed up to speak than we have time to give
5 to all of them, based on the stated end time for the
6 meeting.

7 So my goal is to get as many people to
8 speak as I possibly can, and to put everyone on equal
9 footing regarding speaking time. So to provide
10 allowances to some people, whereas not to others,
11 that would be unfair. So everyone gets exactly, at
12 most, three minutes ten seconds to speak. Okay? We
13 already have, as I kind of noted, over 70 people
14 who've signed up to speak this evening. That would
15 push us beyond our 9:30 end time.

16 PARTICIPANT: Extend it.

17 MR. KLUKAN: We'll see how the meeting
18 goes. I'm not going to rule that out. I can't say
19 we can extend it for a long period of time, but based
20 on the hotel availability and the availability of the
21 police officers in the meeting, but depending on how
22 things are going, we may do that. I'll make that
23 notification later on in the meeting, depending upon,
24 you know, how the meeting is progressing.

Right now, we have about 70 people to

1 speak -- or 69, exactly. We have --- I'll read it
2 to you. We have 36 on the against list, 10 on what
3 I'm calling the neutral list, and then 23 on the pro
4 list. As --- everyone who wants to speak may not get
5 an opportunity to speak tonight. Because of that, the
6 NRC staff will stay outside the meeting area to take
7 any little questions after the meeting. Also, we
8 have comment cards at the registration table.

9 If you want to write down what you were
10 going to ask or what you were going to say, and then
11 give it to me or to another NRC staff member, we will
12 append that to the written transcript. Also, if you
13 want to email or give me any other written comments,
14 I will gladly post those, along with the written
15 transcript, to the NRC website. And my email address
16 is in the meeting notice. So, on to the ground rules
17 for this evening. I recognize that many of you have
18 strongly held opinions concerning the matters likely
19 to be discussed tonight. However, I implore you, I
20 beseech you to respect each other. So please do not
21 disrupt each other, just as you would not want to be
22 disrupted during your three minutes at the
23 microphone. Please respect the speaking time of
24 others. I ask this not for my sake. This isn't about
25 me or the NRC staff. It's rather for each and every

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1 one of you who came out this evening and took time
2 out of your busy lives, as citizens, to be involved
3 in this meeting tonight to come to have something to
4 say or to ask. So it's out of respect for each other
5 that we respect each other's speaking time. With
6 that said, you have every right to disagree with what
7 you hear tonight.

8 You have every right to voice that
9 disagreement during your turn to speak. And your
10 three minutes are your three minutes to do with as
11 you will and to say with as you will, as long as
12 you're not engaging in personal invectives, and I'll
13 touch upon that. So again, please be civil to each
14 other. I ask that we all refrain, again, from
15 invectives or other derogatory personal remarks.
16 There's no place for that here tonight. Regarding
17 disruptive behavior, I play by a three strikes rule.
18 Disruptive behavior includes booing or hissing,
19 generally trying to disrupt another person from
20 speaking, speaking out over another person while they
21 are speaking, trying to throw anything or otherwise
22 create some kind of disruption while someone is
23 speaking and whatnot, or trying to speak out of turn,
24 or not ceding the microphone.

25 The first two will be verbal warnings,

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1 the third, you will be asked to leave. If you do not
2 leave, local law enforcement will escort you from the
3 room. I didn't have to do that last year, and I hope
4 not to do that again tonight. So --- you may think
5 this is silly, what I'm about to ask you to do, but
6 you all came here, and many of you came here with the
7 intent to speak, so I ask, out of respect for each
8 other, if you could raise your hands, and by doing
9 so, say, "I'm agreeing to play by the ground rules
10 that I won't disrupt each other."

11 I'd really like to see every hand raised
12 in this audience. All right, let the record know
13 that people thought that was a great idea. Okay, now
14 let me be plain as possible regarding this next point.
15 Any threatening gestures, any threatening statements,
16 anything that remotely can be construed as a violent
17 action will be cause for immediate ejection from the
18 room, no questions asked, by local law enforcement.
19 If you feel threatened, please let me know, or tell
20 one of the NRC security personnel or one of the police
21 officers stationed around the room.

22 Signs and props, you're welcome to hold
23 them up periodically. I ask you not to keep them up
24 in front of your head the entire time, just in case
25 you're blocking people, but you're welcome to hold

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1 them up as you will. Again, props, you're welcome
2 to bring them up when it is your turn to speak.

3 Before we begin with our public speakers,
4 I would now like to recognize that we have, in the
5 audience, several representatives from congressional
6 offices, Senator Schumer, Senator Gillibrand,
7 Congresswoman Lowey, Congressman Engel, and
8 Congressman Maloney (Applause).

9 Now before we begin with our public
10 speakers, I'd like to invite any other members, any
11 other elected officials or representatives who I've
12 not already introduced to please feel free to
13 introduce themselves, and if you'd like to give any
14 prepared statements, I will not hold you to the
15 three-minute rule, but please be cognizant of that
16 out of respect for the others in the audience. If
17 you are an elected official and would like to be
18 recognized this evening and/or make a prepared
19 statement, please queue to the microphone at this
20 time. All right, I was not expecting that. Going
21 once, going twice, we have someone?

22 PARTICIPANT: (Inaudible.)

23 MR. KLUKAN: I'm sorry; could you go ---
24 I'm going to give you this because we're not going to
25 pick that up on the transcript.

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1 MS. PARKER: Good evening. I'm
2 Catherine (Phonetic) Parker. I'm with the
3 Westchester County Board of Legislators, and I chair
4 the Energy and Regional Efficiencies Committee.

5 MR. KLUKAN: Thank you. And again, just to
6 (Applause) just a note, when you do go to speak,
7 please introduce yourself if you'd like, just for the
8 transcript purposes. Also, if you were one of the
9 ones to please -- or if you submitted slides as part
10 of your presentation, we do have those queued up and
11 ready to go. Please announce that when you get to
12 the microphone, just so I know or Nick[Nik] knows to
13 get them set up on the screen for you. All right.
14 So let's begin. First up is Judy Allen (Phonetic),
15 followed by Paul Blanch (Phonetic), and then David
16 Morse (Phonetic). Again, Judy Allen, followed by
17 Paul Blanch, and then David Morse.

18 MS. ALLEN: Hi, my name is Judy Allen.
19 I'm here from (Inaudible), but I'm here -- I signed
20 the list that said advocate, so I'm not sure what
21 that is, but I am advocating for the 12,966 people
22 who signed this petition online to close Indian Point.
23 It will be delivered to members of Congress, Senator
24 Barbara Boxer, Senator Kirsten Gillibrand, Senator
25 Chuck Schumer, Senator (Inaudible), Senator Bernie

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1 Sanders, Representative Eliot Engel, Representative
2 Nita Lowey, and Representative Sean Patrick Maloney.

3 I'm not going to take my time limits to
4 read the petition. I will send it to you.
5 Basically, I've been coming to NRC meetings for a
6 long time, ever since I moved up here. And, I need
7 to tell you that you no longer have any credibility.
8 You have not been doing your job. I understand from
9 a gentleman who was the head of NYPA for several years
10 that you may have done your job back before 2001, but
11 in my recollection of the last 15 years, you have
12 basically been a lapdog for Entergy and the running
13 of Indian Point.

14 There are so many things that are wrong
15 at that plant, and you continue to say, "Oh, no,
16 everything's fine. The safety is fine. It's green.
17 It's white." It's not any of those things. It's
18 really bad. Better speakers than I, who spoke at the
19 press conference downstairs, will tell you exactly
20 what those things are, especially Paul Blanch, who's
21 coming next. I want to say that the idea of putting
22 a 42-inch gas pipeline next to Indian Point, running
23 under the Hudson River and next to Indian Point, is
24 pure insanity. And for the drawing on a napkin that
25 was submitted to (Inaudible) or to the NRC that was

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1 approved to go forward and do that, that is total
2 insanity.

3 And the only other thing I want to say is
4 that to allow the restart of Unit 2 without a root
5 cause analysis is gross negligence on your part. You
6 are the NRC. That is gross negligence. I wish I
7 had, in my piggybank, enough money to sue you -- and
8 a violation of the Administrative Procedures Act. To
9 not close down Indian Point 3 and inspect it, you're
10 waiting for it to shut down for refueling. That's
11 insanity, too. Thank you very much. (Applause).

12 MR. BLANCH. Thanks, Rich. While you're
13 brining up my slides that I submitted, I'd like to
14 compliment the NRC on some positive things. We're
15 all ex-Navy nuclear people, every one of the panel,
16 including myself. What I'd like to start off with,
17 and I'm going to try to stay within the three minutes,
18 what is going on here with respect to the gas line
19 and the NRC's confirmatory analysis. This is the
20 first time I've said this publicly. Entergy and
21 Spectra have submitted false documentation, in
22 violation of NRC regulations. And this is a criminal
23 action. Take a look at 10 C.F.R. 50.111. These are
24 criminal actions. The NRC are the cops, the
25 prosecutor, the judge, the jury, and the executioner.

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1 What do they do? They look the other way at criminal
2 actions.

3 The Office of Investigations has refused
4 to investigate those well-documented charges. The
5 director of the Office of Investigation has resigned.
6 The NRC has ignored many of its own regulations,
7 directives, and policies. The NRC refuses to meet
8 with me and any of my technical experts.

9 The NRC's Office of Investigation,
10 responsible for waste, fraud, and abuse, has publicly
11 acknowledged they are investigating you guys for your
12 failures of accepting false information and not
13 prosecuting criminal actions, such as with Martha
14 Stewart, who didn't endanger 21 million people.

15 NRC's approval of FERC should be
16 withdrawn until the OIG investigation is complete.
17 The consequences of your wrongdoing, given Indian
18 Point's age, history, mismanagement, lack of
19 oversight, and demographics, is the most threatening
20 man-made facility in the world. I can explain that
21 later. The risk of a major radioactive release is
22 more than 100 times greater than acceptable by the
23 NRC standards. Twenty million persons are in danger.
24 Trillions of uninsured property damage is possible.
25 Impacts on vital structures in the control room has

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1 never been analyzed, contrary to what was previously
2 said. Analysis has been based on false information
3 provided by Entergy.

4 We also have pump fatalities and latent
5 fatalities, and we have uninhabitable land for
6 generations, such as at Fukushima. We absolutely
7 need an independent risk assessment requested by the
8 senators, the governors, and numerous federal
9 officials. NRC has no pipeline expertise. Similar
10 studies were done for Indian Point 6 and 7.

11 They were done right, as with Cove Point
12 and the facility in New Mexico. My three minutes
13 time is up. I've submitted three questions two weeks
14 ago, and I expect the NRC to now respond to those
15 three questions that I previously submitted, and not
16 with, "Hey, we will get back to you." That's why I
17 submitted them early. Thank you.

18 MR. KLUKAN: Thank you. (Applause).

19 David Morse.

20 PARTICIPANT: I have slides. If I can
21 just make a quick comment here. We have your slides,
22 Paul. We will put that in the record. But also, as
23 you know, the NRC gets significant oversight from the
24 inspector general, general accounting office. As
25 such, we will take these slides and we will ensure

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1 that we provide to the inspector general, as well.

2 MR. BLANCH: I want the answers to my
3 three questions I submitted three weeks ago.

4 PARTICIPANT: That's right.

5 PARTICIPANT: Okay, let us respond to the
6 questions. Thank you for providing the questions.
7 We're going to have Glen[n] Dentel here provide the
8 questions and the answers.

9 MR. BLANCH: That's why I submitted them
10 three weeks ago, so I could get answers. I never get
11 answers from you guys.

12 PARTICIPANT: Yes, he's going to provide
13 them now. Sorry for being unclear.

14 PARTICIPANT: (Inaudible.)

15 MR. DENTEL: One of the questions was,
16 was the buried portion of the gas pipeline been
17 analyzed by the licensee for potential impact on
18 Indian Point? And yes, it has --- we analyzed the
19 underground portions. Mr. McCoppin went through the
20 analysis that we've done, and we've concluded that it
21 would not impact safety at Indian Point. Second
22 question was has the fuel oil storage tanks been
23 verified to be free of flammable content? That has
24 been looked into. The fuel oil tanks concerned were
25 formerly used to generate super heat for Indian Point

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1 Unit 1. Indian Point Unit 1 was permanently shut
2 down in 1974. Since that time, the fuel oil tanks
3 have been drained, deconditioned, and abandoned on
4 site. Supply piping to the oil tanks has been
5 disconnected. If any residual oil remains in this
6 tank, it would not represent any concern.

7 MR. BLANCH: That is not an answer.

8 MR. DENTEL: Okay. Finally, the last
9 question was have the plant operators and fire brigade
10 been properly trained to combat a gas leak or
11 explosion of the gas lines that are located within
12 400 feet of Unit 3 control room and switch gear rooms?

13 As a condition of their license, Indian
14 Point is required to have a fire protection program,
15 where plant operators are trained as fire brigade
16 members to respond and fight a comprehensive variety
17 of plant fires. The NRC regularly inspects the
18 ability of the fire brigade to respond through our
19 reactor oversight process, through our baseline
20 inspection program. We verified the site fire
21 brigade maintains its ability to respond to
22 extinguish plant fires. In addition, for plant fires
23 outside of the protected area, local fire brigades
24 would respond to that.

25 MR. BLANCH: That is not an answer to my

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1 direct question. The answer is yes or no.

2 MR. KLUKAN: I appreciate ---
3 disagreements with how the NRC has chosen to answer
4 your question, and I will personally commit Glen[n]
5 to standing outside this room after the meeting for
6 as long as necessary, in order to address your
7 questions. So, but, at this point, we need to move
8 on. So, one little comment because I forgot to say
9 this at the outset. If you are using slides, please
10 let Nick[Nik] know -- just say next slide when you're
11 ready to progress forward, okay? Next up is David
12 Morse, thank you.

13 MR. MORSE: My name is David Morse, and
14 I'm an electrical engineer. I chose to work in the
15 nuclear industry because I consider myself to be an
16 environmentalist, and I want to support carbon-free
17 energy. I want to make something perfectly clear.
18 New York is replacing nuclear with natural gas.
19 Replacing fossil fuel should be the priority. The
20 data I will use comes mainly from NYISO, National
21 Renewable Energy Laboratories, and Solar Energy
22 Industries Association. Four coal plants were going
23 to shut down but are now being repowered into natural
24 gas, Dunkirk, Cayuga, Danskammer, and Greenidge. All
25 four were endorsed by the governor and protested by

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1 environmental groups, such as Earth Justice, The
2 Sierra Club, and the NPCA. Danskammer's online as
3 of 2014. The other three are pending. Danskammer,
4 along with Bowline and Roseton, three fossil fuel
5 plants on the Hudson River, are touted as the main
6 reason Indian Point isn't needed.

7 They are the contingency for Indian
8 Point. In 2014, they generated 1870.1 gigawatt hours
9 of electricity, much less than they are capable of,
10 because they only run if the power is needed. If
11 Indian Point shuts down, they will increase their
12 output by up to 9.25 times, and it will come mainly
13 from these three natural gas plants. They would
14 release nearly 9.58 million metric tons equivalent
15 CO₂ to do this, and nobody is building enough solar
16 and wind to make up the difference.

17 Natural gas used for electric power in
18 New York has risen by 75 percent over the last ten
19 years. More natural gas is being added to the grid,
20 according to NYISO 2015 load and capacity study. Next
21 slide. This graph breaks down (Inaudible) carbon free
22 electricity generation for 2014. You can see there,
23 Indian Point is 22 percent of existing carbon free
24 energy. Fitzpatrick, scheduled to close later this
25 year, is 8 percent. Solar and wind only make up 6

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1 percent, and 44 percent of New York State electricity
2 still comes from fossil fuels. Next slide. The
3 existing growth rate of wind, combined with the growth
4 rate for solar, it would take 20 years to replace the
5 carbon free energy generated in 2014 by Indian Point,
6 27 years if you add Fitzpatrick.

7 In order to show you the scale of this,
8 I took the national average land use for wind farms,
9 divided by two. I added 3 percent capacity factor
10 to the national wind average to calculate a
11 hypothetical modern wind farm to replace Indian
12 Point. It would require 260,000 acres and 3,090
13 two-megawatt turbines. That is 95 percent of
14 Westchester County. These turbines are around 400
15 feet tall. The wind farm would fluctuate by up to
16 309 megawatts within an hour. If you compared the
17 natural gas industry to the -- thank you -- nuclear
18 industry, the regulations are not even comparable.
19 Thank you.

20 MR. KLUKAN: Again, I apologize for
21 interrupting you again. Two things I wanted to
22 mention is in response to comments we received last
23 year, people were confused about where we were in the
24 speaking order. So what I actually have in front of
25 me are copies of the lists, so the original lists are

1 outside. If you want to step outside the room and
2 see where we are, and periodically, I'll give you the
3 number of what number speaker we're at. But you can
4 also feel free -- those three minutes are yours to do
5 with as you will. And by that I also mean if you
6 want to donate it to someone else, you're free to do
7 so. It's up to you.

8 Granted, it's still only three minutes,
9 but they're those three minutes to do with as you
10 want. We did have one elected official come into the
11 room after I made announcement, so I'd like to invite
12 Mayor Richard Thomas of the City of Mount Vernon, New
13 York to please come to the microphone. And I was
14 told he would like to give some prepared remarks.

15 MAYOR THOMAS: Good evening. In my city,
16 like so many other cities, people don't spend a lot
17 of time thinking about where their power comes from.
18 However, it does make a difference in their lives,
19 especially in communities of color such as Mount
20 Vernon. There's nothing clean about increased toxic
21 conditions, nor is it smart to cut power when we need
22 it most. As another sweltering summer approaches,
23 it is important that Indian Point stay on to maintain
24 an electric reliability for the state system,
25 particularly the down state region. The threat of a

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1 blackout is a serious matter, and as mayor, I worry
2 about that almost every day. And the impact is far
3 more dangerous for seniors and those with respiratory
4 ailments. Mount Vernon is among the top 15 dense
5 cities in America and contains a disproportionate
6 amount of people facing significant health
7 disparities.

8 Policy makers must prioritize the public
9 safety of all New Yorkers, especially their own
10 constituents. However, they must also ensure that
11 health safety is part of the dialogue. Too often,
12 minority communities must bear the burden of
13 pollution and poor air quality.

14 Closing Indian Point would make this
15 situation even worse, as fossil fuel plants would be
16 necessary to produce the electricity required to make
17 New York City -- keep New York City's lights on, as
18 well as let's keep in mind that importing foreign
19 power or building cooling towers are not viable
20 answers.

21 So as mayor of the City of Mount Vernon,
22 representative of 70,000 people, I urge all to embrace
23 the findings of the NRC that Indian Point is safe.
24 It should continue to operate. I thank you all for

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1 having this hearing and giving us a platform to speak.

2 Thank you so much.

3 MR. KLUKAN: Thank you. One additional
4 thing, I see a lot of people standing up. Are there
5 enough seats out there? Because what we would like
6 are people not to be seated in the aisle if they don't
7 have to. I would ask if people can do that thing
8 where you squish in next to each other and make some
9 friends, that would be great. I would like everyone
10 to actually have a seat who would like a seat. We
11 actually have another elected official, Manna Jo
12 Greene.

13 MS. GREENE: Thank you. My name is Manna
14 Jo Greene. I am an Ulster County legislator. I am
15 also the Environmental Director for Hudson River
16 Sloop Clearwater, and I'm speaking in that capacity.

17 I want to point out that Clearwater, a
18 couple years ago, was told by the Coast Guard that we
19 had to do a major restoration, essentially a rebuild
20 of our beautiful, iconic, 50-year-old sloop that
21 takes children out on the river twice a day -- 40
22 children, twice a day in the school season, and
23 adults, as well. We agreed to do this at a cost
24 of -- ultimately, it's going to be over \$1 million

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1 for a struggling non-profit. The NRC is not
2 requiring the same kind of preventive maintenance for
3 Entergy, a set of nuclear reactors that is located in
4 the midst of 20 million people who live or work within
5 the 50-mile radius. We strongly support the petition
6 filed by Friends of the Earth calling for a much more
7 rigorous investigation of the problem that the bolts
8 are symptomatic of, and also to close Indian Point 3,
9 which is only two years younger and an identical twin,
10 and it's been subject to the same forces of heat and
11 radiation and vibration.

12 So have other embrittled parts of these
13 reactors. We believe it's irresponsible of the NRC
14 to allow these facilities to stay operating or
15 re-open, in the case of IP2. We also believe that
16 there should be other scientists, other nuclear
17 scientists and experts, other than your own staff,
18 making this determination. This is too important.

19 What are you going to tell us if there is
20 a major catastrophe, if one of the former plates falls
21 off during -- when the reactor is operating and we
22 have a major catastrophe? Are you going to apologize
23 to 20 million people? The other thing would be the
24 Governor's Oversight Committee. I'm calling on our

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1 congressional representatives to call for a hearing
2 on this issue, a field hearing in this region, to
3 really get to the bottom of this. It's far too
4 dangerous. The risk is far too great. Then in
5 general, we believe that the inspections are
6 inadequate. You find things out after the problem
7 occurs, so that spike that occurred, you didn't know
8 that Indian Point was leaking.

9 You found out because it showed up in the
10 monitoring wells after the ground water was
11 contaminated. You didn't know about the bolts from
12 the previous outage because you didn't adequately
13 inspect them. You found out now, after the damage
14 had occurred.

15 Finally, for years, I've been saying that
16 Indian Point is too dangerous to operate. To
17 continue to generate increasing numbers of highly
18 radioactive fuel rods that are stored in severely
19 over-crowded fuel pools, which, themselves, could
20 cause a spontaneous fuel pool fire, it's like playing
21 Russian roulette with our future, but now that's more
22 true than ever, except that we have a lot more bullets
23 in the cylinder.

24 It is simply time to close and safely

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1 decommission these aging, leaking, and deteriorating
2 nuclear reactors before a major disaster occurs here,
3 along the shores of the Hudson, where more than 20
4 million people live and work. Thank you.

5 MR. KLUKAN: Thank you. We're going to
6 resume -- are there any other elected officials in
7 the audience? Going once, twice. We're going to
8 resume our speaker order. That was a good indication
9 that I want to apologize now for my inevitable
10 mispronunciation of your names. I apologize in
11 advance. Next we have up Jeffrey Wahl. It looks
12 like W-A-H-L, maybe. Then we have Susan Shapiro, and
13 then Aris Pavledis. We have our three people.
14 Jeffrey, you are up.

15 MR. WONG: My name is Jeffrey Wong. I
16 live five miles from Indian Point. You guys tried
17 to put me in a category yea or nay nuclear power, so
18 I had to put neutral. I am just pro-safety. Nuclear
19 power's cool, as long as it's safe. The question I
20 have is about these bolts.

21 Simple question is how many bolts are
22 allowed or expected to be okay to be bad for the plant
23 to be safe? Another question is, you use ultrasound
24 to test the bolts, and it's not completely effective.

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1 Do you have another way of testing the bolts, other
2 than ultrasound? That's about it, just very simple,
3 basic questions. Thank you.

4 MR. KLUKAN: Thank you.

5 MR. LEW: Thank you for the question.

6 With respect to the minimum amount of bolts that are
7 required, it's actually a function of the minimal
8 bolt pattern because it's a function of the patterns.

9 I do understand the concerns relative to the large
10 number of bolts that have failed. It was unexpected
11 and, quite frankly, it's not acceptable.

12 But we do know what the underlying cause
13 is, and the purpose of doing the inspections -- the
14 reason for doing the inspections is not only to
15 identify degraded bolts, but also to look for these
16 trends -- these trends are unexpected -- to take the
17 appropriate corrective actions, which we're doing.

18 Relative to the second question was?

19 Ultrasonic testing, in terms of there is that
20 ultrasonic testing. I guess I'll have trouble
21 answering this, unless you can help me with ultrasonic
22 testing. That is the current technology that is
23 available to actually detect any kind of crack within
24 a bolt. I'm not aware of any other technique beyond

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1 that.

2 PARTICIPANT: Thanks, Dave. Yes, that's
3 the current method and, also, it's considered to be
4 conservative. As I mentioned, any crack, no matter
5 how small, that gives an indication, it's
6 conservatively assumed to be failed. The method
7 tends to be on the conservative side.

8 MR. KLUKAN: Okay. Again, next up is
9 Susan Shapiro.

10 MS. SHAPIRO: Hello, I'm Susan Shapiro.
11 I'm a member of the Indian Point Safe Energy
12 Coalition. I live within the 50-mile radius, and I'm
13 an environmental attorney. I support, strongly, the
14 Friends of the Earth's petition, and your response
15 was inadequate.

That's not true, and you know it. You

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1 know it was only done because New York State required
2 it as part of the re-licensing. This inspection
3 would never have happened otherwise. Now, I
4 understand that you don't have the reports back on
5 the -- the metallurgy reports, nor the Westinghouse
6 report -- on what caused it. You're talking about
7 re-starting this before you have those reports.
8 What's the rush, except to make them more money? Do
9 you count the cost of public health? Do you count
10 the cost of the human life? Do you count the cost
11 of the United States of America?

12 If you allow this plant to re-open
13 without knowing what's going on and why it happened
14 and why the bolts are degraded and putting new bolts
15 into old plates, which could cause another different
16 kind of problem that you have not analyzed, then you,
17 every single one of you and every single person at
18 the NRC and every commissioner is criminally
19 negligent and criminally liable for every life in the
20 United States and in this region.

21 Think about it. Would you put your
22 children at that risk? Would you put your
23 grandchildren at that risk? Because you are. It's
24 dangerous, and you know it, and you know that you're

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1 doing a half-assed job. I'm mad as hell, and so are
2 a lot of people in this room, that you continue to
3 treat us in such disrespect.

4 (Applause.)

5 You don't care about our lives. You
6 don't care about our futures. All you care about is
7 how you're going to grease the pockets of Entergy.
8 There's no history here. This is an experiment
9 you're playing. Indian Point is the big experiment.
10 You have no historical knowledge of what's going on
11 in that plant in Indian Point 2 or Indian Point 3,
12 why it's degraded, why the bolts are failing. It's
13 the worst in the world, not just the United States,
14 the worst in the world, and you're playing games with
15 us. This is a science experiment gone wrong.

16 It's time to shut down these plants, and
17 if you can't figure out what's wrong with it because
18 it's old and falling apart. Because the plants were
19 not designed -- the systems, the materials are not
20 designed to last more than 30 years. You're running
21 them for over 40 years, at this point. They were not
22 designed to withstand it. These plants cannot handle
23 it. It's a physical reality. Accept the physical
24 reality because otherwise, you're living in your

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1 alternative universe.

2 The bottom line is Indian Point is not
3 emission free. It's not carbon free. You don't
4 monitor the carbon. You damn well know straight that
5 there's carbon being emitted every single day from
6 that plant if, in 1977, there are reports from Los
7 Alamos, you know that, and you're not monitoring.
8 Unless you monitor the carbon, don't you dare say
9 it's carbon free.

10 PARTICIPANT: Thank you.

11 (Applause.)

12 MR. PAVLETIS: That was an enthusiastic
13 delivery, and I want to thank you for the opportunity.
14 My name is Aris Pavledis. I'm a senior vice president
15 of development for Easter Seals, New York.
16 Twenty-five thousand of the people that we serve,
17 people with special needs, veterans, the disabled
18 live in this area.

19 I tell you that because Entergy has
20 played a big impact on changing the lives of those
21 people, whether it's the playgrounds in Valhalla,
22 whether it's the children in Camp Colony or the
23 various places that we serve. Corporate citizenship
24 is important, No. 1. No. 2, it's jobs. You may

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1 believe what you see on TV, but the reality of it is
2 the economy has not picked up in New York State.

3 Those 1,000 people that work there, those
4 lives are impacted. They're living near Indian
5 Point, also. I met people today that have been there
6 27 years, some second-generation people working at a
7 plant that's been operating for 50 years. Sure,
8 there's fears. There's fear every day when you cross
9 the street. There's fear every day of terrorism.
10 But you can live in fear, or you can live in faith.
11 Lastly, each day, those people go to work, and each
12 day, we flip a switch and take it for granted we have
13 power. Twenty-five percent of the power in New York
14 is supplied right there by Entergy at Indian Point.
15 Thank you.

16 PARTICIPANT: Bullshit.

17 (APPLAUSE.)

18 MR. KLUKAN: Thank you. I heard bullshit
19 from someone. If you could please raise your hand.
20 Who said bullshit?

21 PARTICIPANT: I did.

22 MR. KLUKAN: All right, that's a strike.
23 I asked for -- he was not done speaking. It is not
24 your turn to speak. I am playing this fair on both

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1 sides. That is exactly what I don't want.

2 PARTICIPANT: I'll take it against me.

3 This is like a police state. We're citizens, and we
4 have the right to speak. I'll take a strike against
5 me. This is like a police state. I was told to put
6 my scissors away. That's crazy. There are
7 policemen. I'm here as a citizen protecting my
8 property. (Simultaneous speaking.)

9 MR. KLUKAN: You know what, ma'am? Ma'am,
10 thank you for coming out here tonight. Every single
11 one of my rules -- I'm sorry, I'm going to push back
12 a little bit. Every single one of my rules was
13 designed to give the maximum number of people an equal
14 footing. That is why I had a first come, first served
15 policy. That is why I do a chronological order to
16 the list. It is to --

17 PARTICIPANT: That's two strikes.

18 PARTICIPANT: (Simultaneous speaking.)

19 PARTICIPANT: Let's move on.

20 MR. KLUKAN: Okay, we're moving on.

21 PARTICIPANT: Yes, thank you.

22 MR. KLUKAN: Next up is K-E-S-N-I-Y-A,
23 last name G-O-L-U-B-E-V-I, great, and then Judith
24 Canepa, and then Jerry Kremer.

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1 MS. GOLUBEVI: Hi, my name is Kesniya
2 Golubevi. I live five miles within Indian Point. I
3 work right next to it. I work right at Indian Point,
4 nearby. All my questions have been answered, but
5 thank you for being here tonight.

6 (APPLAUSE.)

7 MS. CANEPA: I am Judith Canepa. I run
8 the New York Safe Energy Campaign. I took some good
9 notes, I think, from what you spoke about. I just
10 want to introduce that I am no mechanical expert. I
11 even have trouble using my key, but I know broken,
12 cracked, missing -- I know what that means. You
13 assure us that Indian Point 3, because it's smaller,
14 because it's younger, because it has fewer bolts and
15 former plates and it runs in lower capacity, Indian
16 Point 3 can wait a year, or even until 2019 or
17 sometime next year. A smaller reactor than the
18 gigantic Indian Point 2 is still a pretty big reactor.
19 It's only two years younger. How long do these plates
20 have to go before they actually popped off or cracked
21 off?

22 How long does that take, and where are
23 they? Where are these plates? What are they doing?
24 How did you find them? You found them on a routine

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1 inspection? I don't think so. I think you found
2 them because Indian Point 2 was down. That's how you
3 have to find Indian Point 3's bolt problems. It has
4 to go down. You have to find it when it's down.
5 Remember, I don't know anything about mechanics. I
6 know this.

7 Too many broken and missing bolts, plus
8 the one that you found on the inspection. They say
9 Indian Point 3 is smaller. How can it be smaller
10 than 281 bolts are you thinking about that are missing
11 or broken or cracked? You say these are little
12 cracks. How big is a crack for a bolt to go off?
13 You do 10 to 25 inspections a year. What kind of
14 inspections are we talking about? What level of
15 inspection are you doing that you couldn't find this
16 stuff? How do we expect you to catch on to the other
17 reactor?

18 Another point I want to make is that
19 you're quoting the expertise of Spectra Energy, and
20 you're quoting the expertise of Entergy, as far as
21 the safety of each other's projects go. What about
22 the industry experts who have testified to you. What
23 about Paul Blanch, who's been working in the field
24 for over 50 years?

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1 He testified today, as to the lack of
2 safety of Indian Point, and that it's the only reactor
3 in his over 50 years that he ever said should shut
4 down, that he ever said is an accident waiting to
5 happen. What about Richard Kuprewicz, who's a
6 pipeline safety expert? He testified to you that
7 this pipeline, if it has an accident, would open like
8 a zipper. There's no way in H-E-C-K -- there's no
9 way that could be stopped from down south, over some
10 computer that's probably shut down because of the
11 accident. Thank you.

12 MR. KLUKAN: Thank you.

13 (APPLAUSE.)

14 MR. KLUKAN: If I'm correct, you had
15 slides.

16 MR. KREMER: No, sir.

17 MR. KLUKAN: No? Okay.

18 MR. KREMER: I have to go home and get
19 them if you want them.

20 MR. KLUKAN: That's all right.

21 MR. KREMER: I'm Jerry Kremer. I served
22 in the New York State legislature for 23 years, served
23 as chair of the Energy Committee, and I helped write
24 the original Power Plant Soldering law. I'm chairman

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1 of New York AREA, which is the Affordable Reliable
2 Electricity Alliance.

3 We have 200 plus members. Among them are
4 the people in this room, Westchester Chamber of
5 Commerce and many others. First of all, to the the
6 great reason about living in America is that we have
7 a democratically elected government and people who
8 carry out the wishes of the government and the First
9 Amendment. I thank you all for your service.

10 This re-licensing process has taken nine
11 years. There's no question it went very costly, and
12 there's no question that it's really due to the delays
13 by the opponents. A decision would have been made
14 on this plant a long time ago but for needless
15 obstruction. If this plant is to move forward, it
16 has to be allowed to continue to do its job, and it
17 does do its jobs. When you find problems in your
18 home, when you correct them, you're to be commended.
19 You're protecting your property. When your car
20 breaks down, when you buy a new battery, you've been
21 proactive. Indian Point and Entergy is proactive on
22 a daily basis. It wasn't some investigative group
23 that invaded Indian Point at night to find missing
24 bolts.

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1 It was Entergy and the NRC, in the course
2 of regular inspections, who found this particular
3 problem, as it has, on many other occasions,
4 discovered the problems that are important. We've
5 had some good things happening since the last time
6 you were here. Governor Cuomo has now said that
7 nuclear must be an integral part of his 2030 plan for
8 more energy, that there's no way that we can move
9 forward to the new types of energy unless we keep
10 nuclear in the state's portfolio.

11 In addition, more and more jobs are being
12 created by Indian Point, at the facility and
13 throughout the region, as a result of its activities.
14 That's good news for people who pay taxes in this
15 community. More and more members of the scientific
16 community are coming forward to say Indian Point is
17 not only needed, but it's safe. Lastly, I think we
18 have to remember if Indian Point closes, a
19 congressional study requested by Congresswoman Lowey
20 stated that if Indian Point were to close, it would
21 take six fossil fuel plants in this region to replace
22 it. The 2000 megawatts from Indian Point are not
23 replaceable. Anybody who tells you that -- there are
24 things online, like the Champlain Express, which will

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1 come years from now, but all these others, they don't
2 exist. Indian Point is the key factor in keeping the
3 lights on in this room and in the homes of all the
4 people in this room. Keep doing what you're doing
5 and keep Indian Point going. Thank you.

6 (Applause.)

7 MR. KLUKAN: Thank you. Next up we will
8 have Ken Gale, followed by Gary Shaw, and then Thomas
9 Kerry. Again, Ken Gale, Gary Shaw, and then Thomas
10 Kerry.

11 MR. GALE: Thank you for holding this
12 hearing and for the opportunity to speak. My name
13 is Ken Gale, and I'm the founder of the New York City
14 Safe Energy Campaign and the host and producer of the
15 environmental radio show "Ecologic" on WBAI FM in New
16 York City. I'm not going to address whether or not
17 Indian Point should close or stay open. There are
18 plenty of people here to do that. I want to talk
19 about the Nuclear Regulatory Commission, itself, and
20 compare it to the NFL. On May 23rd, it came out that
21 the National Football League tried to influence a
22 study of brain disease, head trauma, and concussions
23 to professional football players. They had promised
24 \$16 million to the National Institute of Health for

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1 the study, and took it back when they found out the
2 man in charge of the study was Dr. Robert Stern, a
3 critic of the way the NFL has handled head injury to
4 football players.

5 I'm sure the NFL hoped that the lack of
6 money would stop the study, but it didn't. Many
7 football fans were outraged at this. Some were
8 confused about how the NFL could pay for an
9 investigation of the NFL and not try to influence it.

10 Activists such as myself have seen this
11 over and over -- pharmaceutical companies paying for
12 and influencing studies for new drugs, oil companies
13 paying for and influencing studies of the
14 environmental effects of drilling for oil, utilities
15 stopping the study of cancer clusters near nuclear
16 power plants due to routine releases of radiation.

17 It's how Washington regulators work. Instead of tax
18 money going to making these studies independent,
19 federal agencies whose budgets have been cut to the
20 bone, such as yours, go to the industries they
21 regulate to make a study. Industry pays for the
22 study, directly or indirectly, so it's done their
23 way, and the agencies can show a report that looks
24 like they investigate the industries they regulate.

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1 Few people look at how the studies are done. I'm not
2 blaming you for the way things are done. I'm blaming
3 the way Washington handles its regulatory agencies.

4 Washington has been cutting budgets to a
5 lot of essential health and safety agencies, but
6 without changing what those agencies must do. Almost
7 all of the budget to FERC, the agency which regulates
8 oil and gas pipelines, comes from the companies that
9 give us oil and gas pipelines. If FERC doesn't
10 approve the project, their budget is cut, and people
11 lose jobs and don't get raises. If there were fewer
12 nuclear power plants, the NRC would get its budget
13 cut, so they -- without even licenses.

14 I'm amused that football fans were so
15 surprised, confused, or outraged that this style of
16 doing business is affecting the sport they love so
17 much. Isn't it interesting that this conflict of
18 interest got so much publicity when it's applied to
19 football? It's as if the health and safety of a few
20 hundred football players is more important than the
21 health and safety of the millions of people whose
22 health and safety is hurt by poor environmental
23 regulators. So, then, what do we pay taxes for? For
24 the military, of course, and to give money to

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1 polluting industries, like fossil fuel and nuclear,
2 so they can pay their executives even more money.
3 The Green Center report lists \$200 billion worth of
4 subsidies -- www.greencenter.com.

5 If they stopped giving out tax money to
6 wealthy industries, that money would be available for
7 studying newly developed drugs, the health effects of
8 routine releases of radiation, the health effects of
9 pipeline leaks, and the effects of head injuries to
10 professional and amateur football players.

11 For the budgets for operating nuclear
12 plants, whoever does budgets doesn't understand that
13 closing a nuclear plant is not like closing a shoe
14 store. It takes many years to decommission power
15 plants. They're all going to close. We don't want
16 them to close like Chernobyl or Fukushima. We want
17 them to close like Vermont Yankee. Thank you.

18 MR. KLUKAN: Thank you.

19 (Appause.)

20 MR. SHAW: My name is Gary Shaw. I'm
21 with the Indian Point Safe Energy Coalition. My
22 family and I live about five miles from Indian Point.
23 In 1979, Robert Ryan, the NRC director of the Office
24 of State Programs, said Indian Point was one of the

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1 most inappropriate sites in existence for a nuclear
2 plant. The NRC has inspectors on site. If that's
3 supposed to reassure me, as a local resident, you
4 have failed miserably. Just a few of the problems
5 we've been privy to in the past year or so. In May
6 2015, for the third time, there was a transformer
7 explosion and fire, this time caused by faulty
8 insulation.

9 The on-site inspectors did not identify
10 the inadequate and faulty insulation and did not
11 prevent the event, even though the plant had previous
12 transformer fires and two explosions. When the fire
13 protection system, at that time, was activated, the
14 switch gear room that supplies power to emergency
15 systems was flooded.

16 As reported by David Lockbaum of the
17 Union of Concerned Scientists, and I quote, "The NRC
18 team determined that valves in the switchboard room
19 opened to spray water on the transformer fire and
20 malfunctioned because parts were corroded and clogged
21 by debris. The valve leaked water into the room.
22 The drain in the floor was also partially blocked by
23 debris, allowing the room to begin flooding. The
24 periodic tests of the drain conducted by the plant

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1 owner were inadequate to reveal clogging problems,
2 and while tests did reveal problems with the valve,
3 workers did not follow up by fixing the valves." How
4 good a job is being done by the so-called on-site
5 inspectors? In December of 2015, there was an
6 unplanned shutdown because the magnets that held
7 control rods failed, and the control rods sank into
8 the reactor vessel and shut down the reactor.

9 The loss of power to the magnets was
10 caused by a short circuit in a roof fan. Another
11 problem not prevented by so-called on-site
12 inspectors. I'd like to know when the wiring on that
13 fan has been last checked. In February of this year,
14 there was a huge release of tritium reported. A very
15 disturbing factor in this episode is that no one
16 mentioned that these leaks also included a slew of
17 other radium nuclides, including Strontium 90, Cesium
18 137, Cobalt 60, Nickel 63.

19 That was reported by the New York
20 Department of State. The NRC does not seem to mention
21 anything to let the public know, even though their
22 charter for the NRC is to protect public health and
23 safety. Now we have the issue of the IP2 having more
24 than 25 percent of the baffle bolts missing completely

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1 or being degraded to the point of being
2 non-functional. The baffle is a part of the reactor
3 cooling system, and if that system fails, the uranium
4 fuel can heat up to the point where it becomes molten
5 slag and melts through the steel reactor. That's
6 what happened in Fukushima. It seems like the
7 so-called on-site inspectors weren't on top of that,
8 either. Now, the operators and the NRC are talking
9 about restarting Indian Point 2 without doing a root
10 cause analysis to understand why this close call
11 happened and how it could be prevented by happening
12 again.

13 MR. KLUKAN: Thank you.

14 MR. SHAW: There are no plans to shut
15 down Indian Point 3 to check the baffle plates on the
16 reactor, even though IP has the same design. I have
17 one question. Can you tell us any dangerous
18 conditions that you actually prevented from happening
19 at this plant because you were ahead of the curve?
20 Thank you.

21 (Appplause.)

22 MR. KERRY: Good evening, and thank you
23 all for this very important hearing tonight on the
24 issues regarding the assessment at Indian Point

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1 Energy Center. I'm Thomas Kerry. I represent the
2 Westchester Putnam Central Labor Council and the
3 Plumbers and Steamfitters Local 21 and many brothers
4 and sisters that work at the plant, both Unit 2 and
5 3. Many of the members I represent were involved in
6 the construction of all three units at Indian Point,
7 as well as the safe continuous day-to-day operations
8 today. On a personal note, my grandfather, father,
9 uncles, brother, and my late sister have played many
10 key roles during the ConEdison, Pasley, NYPA, and
11 Entergy-owned era.

12 My grandfather and father worked on
13 building Units 1 and 2. My dad worked construction
14 on Unit 3, as well as becoming a general foreman.
15 Following in our dad's footsteps, my sister, Colleen,
16 worked her way up through Pasley, and eventually NYPA,
17 at Unit 3, shortly out of high school, eventually
18 becoming a warehouse manager. As you can see, my
19 family has a long history with Indian Point.

20 Three generations, so far, have been able
21 to provide a good living for our families. If you
22 ask most of the locals in the area, they are happy
23 that Indian Point is our neighbor. It wasn't until
24 the folks that moved up from surrounding areas that

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1 started complaining about Indian Point. It's in my
2 backyard. I have no problem with it. I'm here to
3 tell you we're just fine with Indian Point. This
4 utility has done more for this community through the
5 years, alleviating tax burdens, helping in local
6 government, libraries, education, and many civil
7 activities. Whether they are asked to pitch
8 in -- whatever they are asked to pitch in, wherever
9 they could, and for the members I represent, in the
10 early days of construction through today.

11 Indian Point has contributed millions of
12 man hours of good-paying jobs, creating an
13 environment so all of us who work there at Indian
14 Point, it's the most safest place we have worked. I
15 am a past chief of the Verplanck Fire Department,
16 which serves fire protection to Indian Point. I
17 worked for years with on-site fire personnel
18 conducting training and drills which has been
19 overseen. We have an outstanding relationship with
20 Entergy, and a commitment to our community to provide
21 the best fire service in the industry. We have
22 changed many major components at both sites, such as
23 the steam generators. As you went through the job
24 site every day, there are bulletins pointing out every

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1 measure of safety. As you are given out your
2 assignments for the day-to-day details, none of our
3 contractors on site actually reach 1 million man
4 hours. I have to say it again because it's such a
5 great accomplishment. I speak on behalf of my
6 members, my family, and myself that we are proud to
7 work at Indian Point, and we will continue to keep it
8 a safe and viable plant, as it is so important in
9 sustaining good paying jobs to our community and
10 keeping us strong. We've heard from our panel of NRC
11 inspectors with years of experience, and I think we
12 can all feel comfortable with their findings that
13 Indian Point remains a safe nuclear power plant. I
14 urge the NRC to extend the operating licenses for
15 another 20 years. Thank you.

16 MR. KLUKAN: Thank you.

17 (Applause.)

18 I'm sorry, what is being said right now?
19 Let me put this out here. I apologize for getting a
20 little heated earlier. But -- I don't want to take
21 up any more of your time than one minute.

22 (Simultaneous speaking.)

23 MR. KLUKAN: All right, then we will, but
24 I would ask you please, please don't interject while

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1 people are speaking. Tom DiFrancisco is up next,
2 followed by Ellen Cantarow -- I apologize -- and then
3 the next up after her will be Mr. Louis Picani. First
4 up is Tom DiFrancisco, then Ellen, and then Louis.

5 MR. DEPRISCO: Good evening, my name is
6 Tom DePrisco. I'm a resident of Pearl River,
7 Rockland County. I'm also a retired deputy
8 commissioner from the New York City Office of
9 Emergency Management for 11 years. I have a few
10 comments and some questions. I'm not a nuclear
11 expert, and I applaud your service in the U.S.
12 Military, by the way. I am a proponent of nuclear
13 power.

14 I'm a proponent of the use of safe nuclear
15 power as an alternative energy source. But watching
16 your PowerPoint over there, I would prefer to err on
17 the side of -- I would prefer that you keep Indian
18 Point 3 closed and inspect it for those baffle bolts.
19 I don't think you're really sure how long the bolts
20 in Indian Point 2 were actually degraded, so I would
21 prefer just to err on the side of safety, check out
22 those bolts with your ultrasound techniques, check
23 out Indian Point 3 first before you restart it.

24 I also have a question about the severe

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1 accident mitigation analysis. It was in the news a
2 little over a month ago. The NRC asked to re-evaluate
3 the decontamination and cleanup costs associated with
4 any severe incident or accident. My question is does
5 that include -- it wasn't clear in the report. Does
6 that include all property in the surrounding area,
7 like private property, homeowners, businesses, and
8 any other property that's surrounding Indian Point?
9 My concern is I was involved with a lot of -- I
10 developed a lot of the recovery protocols in Ground
11 Zero and the surrounding area after 9/11, and it was
12 immense. It was very overwhelming. I just want to
13 know, are you concerned that Entergy has severely
14 underestimated the cost to clean up the mess if there
15 were an accident in the surrounding area? Thank you.

16 MR. KLUKAN: Thank you.

17 (Appause.)

18 PARTICIPANT: Let me try and take the
19 last question first. I think what you're referring
20 to is the Severe Accident Mitigation or turn off, or
21 what we call SAMA. The Commission did reverse the
22 Atomic Safety and Licensing Board decision relative
23 to the model -- there's a cost model.

24 It was based on the two inputs that the

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1 Commission believed that a sensitivity study should
2 be done. The staff is following Commission
3 direction. They will be doing a sensitivity study.
4 I would offer that does reflect the independence of
5 the Commission, in terms of the reversal of the ASLB.
6 The other thing I would offer, too, is that the major
7 alternatives, there are enhancements to safety, but
8 the underlying requirements for safety is already
9 established. I think part of it, to answer your
10 question, is analysis of cost, in terms of is the
11 cost for enhancements justified? That's going to be
12 reviewed by the staff.

13 MR. DEPRISCO: But does it include the
14 costs for decontamination and cleanup for -- I asked
15 about the surrounding area, private property, or is
16 it just within the Entergy property, itself?

17 PARTICIPANT: It does include
18 everything.

19 MR. DEPRISCO: It does?

20 PARTICIPANT: SAMA analysis includes all
21 costs.

22 MR. DEPRISCO: So the NRC really believed
23 that Entergy did underestimate the decontamination
24 and cleanup costs for the surrounding area, God forbid

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1 there was an accident?

2 PARTICIPANT: Just to clarify, there's
3 two inputs that have been raised and questioned.
4 What the staff is doing is doing a sensitivity
5 analysis to understand what the potential impact is
6 on that analysis. That's going to have to continue.
7 The determination of the result, it's undetermined
8 until the staff actually does it. That's what the
9 staff has on the way is doing a sensitivity analysis
10 on those two inputs.

11 MR. DEPRISCO: I guess I'm within my time
12 frame, I guess.

13 MR. KLUKAN: You are. You have about 30
14 seconds. MR. DEPRISCO: I just

15 want to make sure I understand. I don't know if I'm
16 hearing it. My concern is the surrounding area. If
17 there is an accident, like in New York City, we try
18 to figure out how much the mitigation costs would be
19 for the surrounding area. I don't know if I'm hearing
20 that.

21 PARTICIPANT: The answer's yes. For the
22 surrounding area, the model does consider the entire
23 surrounding area.

24 MR. DEPRISCO: All right, thank you.

1 MR. KLUKAN: Ellen, you're up next.

2 MS. CANTAROW: My name is Ellen Cantarow.

3 I'm going to do something I've never, ever done
4 before. It's not a self-advertisement, but what
5 appalls me as a journalist who has written for a long
6 time both about fracking, the gas that's going to be
7 carried in the Spectra pipeline is going to be fracked
8 gas from shale. I have written about Indian Point.
9 My name is spelled -- and I'd like the workers to
10 take my name down, too, because I find that people
11 really don't -- even people who are working very
12 closely with nuclear plants really may not get the
13 magnitude of the threat that I'm convinced, on the
14 basis of my research, from my reports, exists -- C-A-N
15 for Nancy, T for Tom, A-R-O-W -- C for cat, A for
16 apple, N-T-A-R-O-W. You can find my articles at
17 Truthout and TomDispatch.

18 I have no time tonight to ring up the
19 hundreds of hours of research that I have done on
20 what I am convinced now are the incredible dangers of
21 bringing into conjunction two sources of power,
22 natural gas or methane rushing through a huge
23 pipeline, at one point a mere 105 feet from critical
24 structures at a plant which is known to be if not the

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1 most dangerous, among the most dangerous in the world.

2 I defer to people who have spoken to the
3 dangers of this plant. I'm not going to
4 continue -- okay. A 2015 Pipeline and Hazardous
5 Materials Safety Administration report showed a
6 six-fold increase in pipeline incidents since 2009.
7 A lot of these pipelines are being built to
8 accommodate the fracking industry. The way these
9 pipelines are being built, apparently, according to
10 the PHMSA report and according to a National
11 Transportation Safety Administration report, the
12 incidents are rising. A gentleman whose name I did
13 not disclose in my most recent report told me that
14 there were shortcuts that were being done on the
15 pipeline, the AIM pipeline that is being built by
16 Spectra Corporation. Do I have three more minutes,
17 or it's now my three minutes are up?

18 MR. KLUKAN: It is a little confusing.
19 You have ten seconds.

20 MS. CANTAROW: I have never, in the 40
21 years I have been writing, as well as about the
22 environment, I have never written anything that has
23 come so close to the bone as the reports that I have
24 written about Indian Point and the pipeline that is

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1 scheduled to pass by it. I just moved to New York
2 City, and frankly, I am no longer a disinterested
3 party, even though reports are disinterested, and I
4 am scared shitless of what could happen. I am very
5 sorry to use that word. We are not talking about an
6 accident.

7 MR. KLUKAN: Thank you.

8 MS. CANTAROW: We're talking about a
9 possible Fukushima, and this could happen in New York
10 and decimate the entire region, and thus the economy
11 of the entire United States.

12 MR. KLUKAN: Thank you very much.

13 (Applause.)

14 MR. PICANI: Good evening. My name is
15 Louis Picani. I'm president and principal officer
16 of Teamsters Local 456. Teamsters Local 456 is
17 responsible for the safety and security of the Indian
18 Point Energy Center. We represent the security
19 officers who work to protect it.

20 We have the experience and rigorous
21 training necessary to ensure Indian Point maintains
22 its record of safe operations and to secure our
23 facility against external threats. We are proud of
24 the jobs we do and take ownership of our plant. Our

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1 safety record is a testament to our commitment to our
2 co-workers, community, and the environment. Indian
3 Point is safe, and anyone who claims otherwise is
4 attacking our members without authority or knowledge
5 of how the operation actually works.

6 The U.S. Department of Homeland Security
7 and the U.S. Department of Defense coordinates with
8 the NRC, New York State Office of Emergency Management
9 and regional government authorities on a daily basis
10 to ensure public safety because it is a top priority
11 for Indian Point. Indian Point is also an economical
12 driver in the region, supporting thousands of
13 well-paying jobs across Westchester County and lower
14 Hudson Valley. Shutting down Indian Point would have
15 a catastrophic impact on our economy. Thousands of
16 good-paying jobs would be lost, while electric bills
17 would rise, and the entire region would suffer.
18 Indian Point's continued operation is necessary for
19 economical health, and Teamster's Local 456 will
20 continue our commitment to ensure that we keep it
21 safe. Teamster's Local 456 and all organized labor
22 stands behind you. Keep up the good work.

23 (Applaus.)

24 MR. KLUKAN: Thank you. I know that

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1 three minutes is not a long time, and a lot of you
2 will not finish with your written statements. If
3 you'd like to give them to me at the end of the
4 evening, or email me, I'd be happy to add them to an
5 addendum to the written transcript. Next up we have
6 Bernard Vaughney V-A-U-G-H-E-Y, then we have Jill
7 McMannis, and then Joe Brown -- so again, Bernard,
8 then Jill, then Joe.

24 We need an energy evaluation, subsequent

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1 NRC confirmation evaluation that provides specific
2 information into what specific areas were evaluated.
3 The presentation tonight indicates that only 42-inch
4 line was looked at. What about the existing 30-inch
5 line? Nothing is in the documents about the 30-inch
6 line.

7 Acceptable evaluations must indicate that
8 there is no increased risk, not minimal increases or
9 no significant increase in risks. These terms,
10 minimal and not significant terms, are unacceptable
11 when we're talking about safety and risk to Indian
12 Point. If the NRC approval of a 30-inch line through
13 Indian Point is based upon the updated final safety
14 analysis, the UFSAR report, using a 2008 report as a
15 reference, which is prior to AIM, or does it include
16 the specific system changes that were made under the
17 AIM project? We need to know. Does the Indian Point
18 USFAR still describe -- describes past evaluations of
19 pipeline ruptures, but it indicates that there is no
20 discussion of the methodology. This is unacceptable,
21 and yet another reason to rescind the NRC approval
22 until it is addressed.

23 Show us, the residents and those who will
24 be in the brunt of any disaster, how the AIM review

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1 and the reviewers addressed the 30-inch line, the new
2 interconnections with the 42-inch gas line with
3 related over-pressurization potential to 850 PSI, the
4 significant increase in compression horsepower only
5 four miles upstream of Indian Point from 20,300
6 horsepower to 36,200 horsepower, the increased
7 capacity of an additional 237,000 dekatherms, a 17
8 percent increase in the capacity of what the two lines
9 are currently carrying, and the impact of these
10 increases on the control room, which is only 400 feet
11 away from these lines.

12 What group is performing these reviews on
13 both the Entergy and the NRC level, and what are the
14 review teams', not the individuals', qualifications
15 and expertise on nuclear power plants and interstate
16 gas transmission safety, failure models, experience
17 in disaster analysis -- thank you.

18 MR. KLUKAN: Thank you.

19 (Applause.)

20 I think some of you -- you're welcome to
21 clap when someone is speaking. That's completely
22 kosher. Let's move on. Thank you.

23 MS. MCMANNIS: Hi, my name is Jill
24 McMannis. I'm from New York City, but I spend a lot

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1 of time out here. I don't enjoy it anymore. I think
2 there's a difference in your concept of safety and my
3 concept of safety. You remind me of lawyers. You
4 have parameters of your own. If it's green or white,
5 you have three of this and three of that, it's safe.
6 To me, I'm looking at the whole picture. I find it
7 an intolerable risk for daily life.

8 It's affecting daily life. There's no
9 evacuation possible for the people here. The city
10 would be in total gridlock. We see these constant
11 breakdowns, these electrical flaws and problems,
12 leaks of tritium, radioactive releases, and the thing
13 with the bolts is nuts. It's beyond. The Spectra
14 AIM pipeline compounds the dangers that already exist
15 at Indian Point, yet the NRC and FERC, as the
16 rubberstamp industry organization is called, are
17 allowing Spectra to run this 42-inch pipeline, that's
18 this big, right to within 105 feet of critical
19 infrastructure, as you've heard, just a short city
20 block. Meanwhile, a rupture to 42-inch pipeline that
21 I have research and looked into a bit could cause a
22 blast similar to Hiroshima every few minutes as that
23 gas is coming through an active pipeline, and it would
24 have a blast radius of more like 50 and 100 feet, and

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1 possibly more.

2 I think that was derived from comparing
3 the San Bruno 30-inch blast. The NRC and FERC did
4 not adequately assess the combined risks of the
5 pipeline and the nuclear reactor. There are other
6 risks. How about Fort McMurray? How about a
7 wildfire? How about electrical charges along the
8 fault lines that could be causing the bolts to
9 collapse?

10 How about a careless bulldozer, a
11 missile, a plane crash, security breach? I can't
12 live with this. How many helicopters does your local
13 fire department have? Because in the forest fire,
14 they had no way to douse it except by water baggage
15 carried by helicopters. Okay, that's about it. I
16 just think you have your head in the sand, just like
17 Pepco did, and we have to live with the risk.

18 (Applause.)

19 MR. KLUKAN: Thank you. After Joe, who's
20 walking to the microphone, we will then have Bill
21 Meyer, M-E-Y-E-R, followed by Ling Su, and then Dr.
22 Cabbagestock, but Joe, you're up next.

23 MR. BROWN: Thank you. My name's Joe
24 Brown. I'm the founder of the Daisy Jopling

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1 Foundation. The Daisy Jopling Foundation brings
2 music education to children, so wonderful to see
3 children get inspired by professional musicians and
4 go on to do great things in life. I grew up about
5 less than two miles from Indian Point. Quite
6 frankly, I like to keep things very simple. In that
7 regard, when I think of all the fear that I feel and
8 I see and I hear from people, I wanted to investigate
9 myself, so I went and I talked to people in the
10 community.

11 I talked to people who actually built the
12 facility, and they assured me that there were no
13 shortcuts taken back in the days. They assured me
14 that the place was over-engineered because it was
15 unknown. It was one of the first nuclear power plants
16 in the country. Then I thought people are talking
17 about health hazards and health risks, so I went and
18 I talked to the undertaker. The undertaker assured
19 me that there's no greater rate of overall fatalities
20 in the area than any other place in the country.
21 Again, keeping it simple, I did a Google search. I
22 searched for casualties to the nuclear power
23 generation. When you do that, Wikipedia -- it's an
24 encyclopedia online -- comes up. It tells you that

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1 there are four power plants that suffered from some
2 casualties, Chernobyl being the worst one, and
3 Fukushima being the fourth one.

4 If you look at Fukushima, there was no
5 casualties. No one died from radiation exposure.
6 Look it up yourself. No one died from radiation
7 exposure at Fukushima. I don't understand where all
8 the fear is coming from. I would say let's keep it
9 simple. Let's look into it. Let's investigate it,
10 and let's keep Indian Point open. Thank you very
11 much.

12 (Applause.)

13 MR. KLUKAN: Next up is Bill Meyer. Do
14 we have a Bill Meyer? Okay, then we're moving on
15 to -- again, that's spelled M-E-Y-E-R. No? Okay,
16 moving on to Ling Su.

17 MS. SU: My name is Ling Su. I'm a
18 resident of New York City and the co-founder of United
19 for Action. Indian Point should be shut down
20 immediately and decommissioned carefully and
21 responsibly. We have seen an increasing pattern of
22 shutdowns, equipment failures, and safety violations
23 at Indian Point. While we still do not have a
24 satisfactory answer to the cause of the alarming level

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1 of radioactive tritium leaks at Indian Point, a
2 routine safety inspection of Reactor Unit 2 revealed
3 that more than 25 percent of the bolts which are a
4 critical part of the reactor's core cooling system
5 were degraded or failed.

6 This high failure rate has never been
7 recorded in any reactor in the whole world. If the
8 bolts and the plates they hold fail, cooling water
9 can't get to the reactor core. This could lead to a
10 reactor core meltdown, just like at Fukushima. This
11 will send a field of radioactivity over nearly 20
12 million people who live within 50 miles of Indian
13 Point.

14 We understand that Entergy is rushing to
15 repair the degraded bolts in Reactor Unit 2 without
16 investigating the safety condition of the plates and
17 without understanding the root cause of the failure
18 of the bolts, so that Entergy can restart Reactor
19 Unit 2 in June, in time to profit from the high energy
20 cost summer season. Moreover, despite the fact that
21 aging Reactor Unit 3 is the same as Reactor Unit 2,
22 Entergy has no plans to bring Reactor Unit 3 offline
23 until 2017 to inspect if it is seriously damaged, as
24 well. This is totally unacceptable. We demand that

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1 the NRC take over the investigation of Reactor Unit
2 2 and shut down Reactor Unit 3 immediately for an
3 intensive inspection. Until the root cause of the
4 bolt failure or anything else NRC may discover in its
5 own inspection are found and corrections are made and
6 certified by NRC, Reactor Unit 2 and 3 should not be
7 allowed to be operational.

8 The construction by Spectra Energy of the
9 Algonquin Pipeline, a new high pressure and
10 potentially explosive 42-inch natural gas pipeline
11 very close to Indian Point is totally irresponsible.
12 Should corporate profit outweigh public safety and
13 health concern for 20 million people? If you don't
14 care about human suffering, then what about the
15 disastrous impact a meltdown at Indian Point would
16 have on Wall Street in New York City, the U.S., and
17 the global economy?

18 We do not need Indian Point. Through the
19 various shutdowns, no one suffered any power failure.
20 I urge you to shut down Indian Point immediately, and
21 do not renew the operating license for Indian Point.
22 The construction of Algonquin Pipeline should be
23 halted immediately, as well. Thank you.

24 (Appplause.)

1 MR. KLUKAN: Thank you. Next up is Dr.
2 Cabbagestock.

3 DR. CABBAGESTOCK: Thank you. Good
4 evening. This is how we first begin to solve our
5 problems, by being friendly to one another. My name
6 is Reverend Cabbagestock, Dr. Cabbagestock. I come
7 out of Brooklyn, one of the most concentrated Black
8 people in the City of New York.

9 This is not my first time speaking on
10 this situation and the subject of this matter, any
11 way that you wish to label it, but I believe that
12 it's meaningful, Indian Point. I truly believe that.
13 On the behalf of some of the religious leaders and
14 those that are not able to speak for themselves, I
15 come to represent them.

16 I just want to say that we thank you for
17 the public forum because many of them don't have the
18 time to be here, and many of them would not come here
19 under difficult circumstances. It may be a lack of
20 education. But we do thank you for that. We have
21 concerns. We have concerns because you, who are
22 making decisions on behalf of not just Brooklyn, but
23 many other people in the State of New York and other
24 places, need to have a clear understanding of what's

1 going on. Because we support you. In order to
2 support you, we must be clear on all aspects of what's
3 going on. Let me just say that we want you to have
4 the best interests for the people of New York, the
5 children and families in our congregation.

6 As you see, there are many individuals
7 that have come here today. They have signs. They
8 have their T-shirts on. They'll do what they need
9 to do to help the process, but not be against the
10 process. We can argue and fuss all day and all night
11 long, but at some point, we must come together in a
12 group. That's the beauty of liberation, and that is
13 the beauty of the founding fathers of democracy, to
14 come together and agree to do something that's
15 greater.

16 Let me just say that we are tired of
17 dangerous pollution, so we will choose to be there.
18 We don't want our communities to be disrupted by some
19 kind of pollution air that causes asthma and causes
20 hard breathing for our elders and our young people.
21 It's a danger, whether it Harlem, Bronx, or Brooklyn.
22 We need clean energy. Clean energy. But I want to say
23 this in continuation of stopping at that two minutes
24 I believe that is there. I just want to say that we
25 just want to do this in a responsible and reasonable

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1 manner, because we're dealing with a lot of money, as
2 well, \$2.5 billion over the United States, \$1.3 over
3 local communities, \$1.6 statewide. It's a lot of
4 money being spent. And if you would give me the
5 opportunity to sit with you gentlemen at a later date,
6 we will show you how to spend that money. I thank
7 you so kindly. God bless you and keep you in what
8 you're doing, but do it the right way. Thank you.

9 (Applause.)

10 MR. KLUKAN: Thank you. Okay, next up
11 is William Huston, it looks like H-U-S-T-O-N, and
12 then Catherine Skopic, S-K-O-P-I-C, and then Reginald
13 Bowman. So again, William, Catherine, Reginald.
14 William Huston. Do we have a William Huston in the
15 audience? We do, okay, great.

16 MR. HUSTON: William Huston.

17 MR. KLUKAN: Huston, I apologize.

18 MR. HUSTON: That's okay. My name is
19 William Huston. I drove three hours to come here
20 today to talk to you all. My concern is first of
21 all, I really want to echo what Mr. Paul Blanch has
22 said, and also Ellen Cantarow and a lot of other
23 people, about the concerns about the AIM pipeline.
24 There's a lot of people here that have been telling
25 you about that. My expertise is not nuclear power.

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1 My expertise is natural gas pipelines. What I've
2 been doing for about the last three years is I've
3 been examining the federal formula called the
4 Potential Impact Radius, the PIR. What I will tell
5 you is the gentleman that did the presentation of the
6 analysis and the models, that is, like, way wrong.
7 It's way wrong. It's laughable wrong.

8 You've got to go back and look at some
9 real-world data, like I did. Let me tell you what I
10 found. San Bruno, California, the predicted PIR was
11 414 feet. The actual impact radius was 1,024 feet,
12 Sissendale (phonetic) 436, actual impact radius 514,
13 Cleburn, Texas, 805 feet predicted PIR, actual impact
14 radius 1,400 feet, Appomattox, Virginia, predicted
15 PIR, 585, actual 958. Let me cut to the chase because
16 I've looked at a lot of these.

17 Every single accident -- I've been able
18 to find the data that I need on seven of the biggest
19 pipeline accidents in United States history, and I've
20 got them right here, and I can show you. There was
21 just one that recently happened in Salem, PA. This
22 thing was off the charts. It was a 30-inch natural
23 gas pipeline that failed. The predicted PIR was 671
24 feet. The actual impact radius was 2,200 feet.
25 There was melted siding on homes 2,200 feet away.

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1 Your models, sir, are way wrong. This is the -- I
2 like to say that the AIM pipeline is extreme
3 stupidity. The existing natural gas pipelines under
4 Indian Point, 50 or 60 years old, rusting pipes, near
5 stray electrical currents, near a water supply, this
6 makes extreme stupidity sound like a good idea. I
7 just want to say I'm signed up on the neutral list.
8 I have personal feelings about whether we
9 should -- what the remedial action is, but I'm going
10 to let people here -- what do we need to do?

11 (Simultaneous speaking.)

12 MR. HUSTON: Thank you.

13 MR. KLUKAN: Thank you.

14 (Applause.)

15 MR. KLUKAN: Next up is Ms. Skopic,
16 followed by Reginald Bowman.

17 MS. SKOPIC: Could you please give me my
18 ten seconds sign after two minutes, because I'd like
19 to see[cede to] Paul who's at the end of the list,
20 and I want to be sure he gets a chance to speak.

21 MR. KLUKAN: You want me to stop you at
22 two minutes, ten seconds?

23 MS. SKOPIC: Yes, give me the bell, the
24 one you would give, the ten-second bell, give it to
25 me after two.

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1 MR. KLUKAN: This will go swimmingly.

2 MS. SKOPIC: My name is Catherine Skopic
3 -- we are concerned about the workers in the
4 community. We are very serious about having a
5 roundtable with all stakeholders to justly take care
6 of this serious problem and get this danger closed.

7 Eight major malfunctions in 2015.

8 The leaks of this past February, now the
9 rusted bolts inside Reactor 2. What is it going to
10 take to wake up those at the helm. The ship has hit
11 the iceberg. We want Indian Point shut down before
12 it sinks and we suffer. I wanted to make a few
13 points, one being nuclear energy is dirty energy.
14 It's dirty from the mining and processing and the
15 transporting of uranium to the fossil fuel-run
16 generators that they have to keep on hand.

17 I would like to point out that the 2,040
18 megawatts of Indian Point has been replaced already
19 with increased transmission lines, energy efficiency
20 and so forth, and that if we closed Fitzpatrick, we
21 can walk and chew gum at the same time. You can
22 close one and get more transmission and more increased
23 efficiency -- we are smarter than that. We don't
24 have to choose between one dirty generation and
25 another. We don't have choose between nuclear power

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1 and burning fossil fuels. We are smarter than that.
2 And I would like to also point out that these tritium
3 leaks from February 10th, 80 percent increase in
4 tritium levels (Inaudible) 12 million (Inaudible) per
5 meter, 700 times the EPA required level, and there is
6 no safe amount of tritium in the water.

7 (Inaudible) Flint, Michigan (Inaudible)
8 no. Close Indian Point now. The last thing I wanted
9 to say before I give my time to Paul is that members
10 (Inaudible) support the emergency petition filed by
11 Friends of the Earth (Inaudible) shutdown of two until
12 it's fully explored, and a shutdown of three. Close
13 it now. Thank you.

14 (Applause.)

15 PARTICIPANT: Thank you, Catherine. I
16 have a question. I'm going to speak very briefly,
17 and then I'm going to ask you guys to speak volumes.
18 You've said that the bolts failed at a rate well over
19 200. As I understand it, no other reactor in the
20 world has failed at a rate higher than 50. Entergy
21 predicted a rate of 1.5 percent, and this is roughly
22 33 percent. Why are we so lucky? Tell us why this
23 reactor is the one that failed at a rate 300 times -
24 -- 300 percent higher than any other reactor had
25 failed? Why, gentlemen? Why?

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1 (Applause.)

2 PARTICIPANT : Thank you for the question.

3 Just to reiterate, just for awareness, once this
4 occurred in March, we had significant inspections on
5 site, as well as continuing support from headquarters
6 in taking a look at this particular issue. The root
7 cause --- and this has been stated during the
8 presentations. I don't want to go over the
9 presentation too much, but the root cause is
10 radiation-assisted stress corrosion cracking.

11 PARTICIPANT: But why so much worse at
12 this reactor?

PARTICIPANT: In terms of looking at
(Inaudible) there is three factors. One of the factors is the neutron fuel. Another factor is a susceptible material, and a third factor is stress. As we're looking at the (Inaudible) here, what we're focusing on right now is there is something called a down flow versus up flow in the flow between the baffle plates. And we think we see some correlation between that dynamic, and without going to too much of a description, down flow is the flow between the cold barrel and the baffle plates. And it comes down, versus up flow, and it actually causes a differential pressure across those baffle plates. We

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1 think that that does add more stress, which is one of
2 the factors. But again, I think one of the things
3 that we're going to be looking at very closely,
4 relative to this issue, is the information that we
5 get not just from Indian Point when they do the bolt
6 exams, but also from other plants, as they do these
7 inspections.

8 Recognize, these inspections will be done
9 at all pressurized water reactors. We will get
10 additional information. We're seeing some additional
11 information coming from those plants, particularly
12 those with this down flow configuration.

13 PARTICIPANT: And you don't have the
14 results of the metallurgical analysis, and you won't
15 for months, so how can you re-open this reactor in
16 June when you still have so many open questions
17 unanswered?

18 (Applause.)

19 PARTICIPANT: I fully understand the
20 concern, as I said. You know, this is a high
21 percentage. It's not acceptable relative to Indian
22 Point 2. And I don't want to repeat too much of what
23 has been discussed by Jack, but with respect to Indian
24 Point 2, they have replaced the bolts. They're a new
25 design, with less stress on the heads. They are of

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1 a different material that's less susceptible. They
2 have replaced all of the grade bolts, as well as 50
3 more strategically located bolts at higher stress, so
4 they're picking up more load to alleviate the load on
5 the other plant. So, relative to the question, that
6 gives us confidence relative to the restoration of
7 (Inaudible) configuration. For those reasons, we
8 don't believe that there is -- we don't have an
9 immediate safety concern relative to Indian Point 2
10 starting.

11 PARTICIPANT: If this is unacceptable,
12 and you can't explain yet without these test results,
13 why this rate of failure came to exist, how can you
14 be confident that other internal components aren't
15 degraded in a correlative fashion? You need to tear
16 this thing down before you re-open it, and you need
17 to close three and look at it tomorrow. That's what
18 safe means. I say this is as a man who was a
19 regulator for 13 years. You guys are living in a
20 dream world if you think what you're doing is safe.

21 MR. KLUKAN: Thank you. Next up is
22 Reginald Bowman.

23 MR. BOWMAN: Good evening, everybody.
24 My name is Reginald Bowman, and I am the president of
25 the Brooklyn East New York City Housing Authority

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1 Council of Presidents in Brooklyn, which is a few
2 miles south of here. Basically, I represent the
3 largest concentration of public housing in the United
4 States, where over 25,000 people live. And I'm also
5 the former president of the citywide council, which
6 represents over 344 conventional housing projects and
7 developments and over 400,000 residents in the City
8 of New York.

9 On behalf of the council and (Inaudible)
10 residents, I thank you for taking time to hear our
11 views on the importance of allowing Indian Point to
12 continue to operate. New York State has amongst the
13 highest electricity costs in the nation, and New York
14 City's electric rates are far higher, causing many
15 residents and those on fixed incomes, in particular,
16 to struggle each month to pay their energy bills.

17 Now we may not be familiar with the debate
18 of those who reside within the confines of this area
19 which I'm standing and Indian Point and the
20 controversy that seems to go on here, but we are
21 impacted by the service that we do get when we go to
22 our switches and turn our switches on and expect
23 electricity to work. And I find it very interesting
24 that people who are as intelligent as many of the
25 people in this room haven't come to some kind of an

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1 amicable solution. However, I didn't come up here
2 to be a mediator. I just came to discuss the issues
3 of the people that I represent. So, as president of
4 the residential association and the groups that I
5 represent, I can't stand by as opponents of Indian
6 Point threaten to force our families to pay higher
7 rents, outrageous energy bills, and more essential
8 products and services.

9 Quite simply, New Yorkers need the power
10 from Indian Point. I'm sure that many of you in this
11 room may not agree with me, but we believe that it's
12 essential for the Indian Point reactor and its
13 facilities to continue to operate. And that's what
14 we believe, at this point, is right for New York.

15 I personally believe that in order for us
16 to solve this problem that we have, we have to address
17 it in a way that's going to make sure that those of
18 us who depend on the energy that comes from these
19 facilities are not negatively impacted by them just
20 arbitrarily wanting to shut something down and close
21 it and not think about the impact that it's going to
22 have on the daily lives of other people. Thank you.

23 MR. KLUKAN: Thank you.

24 MR. KLUKAN: All right, so it's 9:24.
25 Because we still have a bunch more speakers, we'd

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1 like to --- we had a bunch more people who wanted to
2 speak tonight, and because we had some delay, we want
3 to extend the meeting until 10:10. So in case you
4 don't know where we are on the speaker list, we're on
5 around 9:10 on all the lists. So ,they are available
6 outside if you want to see where you stand in that,
7 just to remind yourself. We're going to go until
8 10:10, okay? Not to delay any further, next up is
9 Susan Mafair (Phonetic).

10 MS. MAFAIR: I'm going to give my time
11 to Joann (Inaudible) she has something to say that
12 nobody else has said.

13 MR. KLUKAN: Okay. Absolutely fine. Joann
14 is it?

15 MS. MAFAIR: Joann.

16 MR. KLUKAN: Okay, she'll be followed by
17 Sheila Geist (Phonetic), and then Bruce Green, so
18 whenever you're ready.

19 MS. DEVITO: Hi, my name is Joann Devito
20 (Phonetic). I'm here to speak about my family
21 tonight, but before I start, I want to address two
22 other speakers that spoke earlier. One was an
23 employee of three generations, and he said that he
24 did not -- I'm not used to public speaking, wait a
25 second -- he said that all the neighbors around the

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1 plant were happy that it was there. I was a neighbor.
2 The other speaker said she did not want to live in
3 fear of nuclear attack or an accident. I say let's
4 not live in fear, but live in reality. The reality
5 is my family was struck with cancer. My daughter,
6 Michelle, had cancer, my daughter, Tina, my daughter,
7 Jennifer, and then myself. All four of us have
8 thyroid cancer. I was treated at Yale University,
9 and our surgeon said that it was not genetic. It was
10 papillary carcinoma, which is environmental.

11 So how do you explain why four people in
12 one family were struck with thyroid cancer in two
13 months? We had our surgeries, all four of us, in two
14 months. And no one has addressed health issues here
15 and how it impacts us. How much poison is okay? A
16 little radiation leaking from the plant is okay? How
17 much --- a little bit of poison is okay? I don't
18 think so. If you have families, if you have children,
19 I really want you to search your hearts, and I pray
20 that you come up with more answers, better
21 investigations of this plant, and please shut it down.
22 Thank you for your time, and thanks for your
23 consideration.

24 (Applause.)

25 MR. KLUKAN: Thank you for sharing that.

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1 I'm sorry to hear about that. You have my
2 condolences. Again, next up is Sheila Geist.

3 MS. GEIST: I'm Sheila Geist. I'm a
4 lifelong at-large rights activist. And I want to
5 start to say that I am in agreement with many of the
6 previous speakers on the factual dangers from the AIM
7 pipeline, from the boats, from all of those safety
8 issues. And I want to particularly agree with
9 Catherine Skopic about --- that we don't have to
10 choose between gas and nuclear; we've got to get rid
11 of both of them. We have -- (Applause). If we close
12 Indian Point we can take the money and the subsidies
13 that go to nuclear and turn them to renewable energy.

14 This crap that you can't scale up
15 renewables is just that, pure bullshit. And I also
16 don't like the rule that if people lie to you about
17 how much power from nuclear that New York needs that
18 we should just sit quietly and smile and not call it
19 for the lies that they are.

20 It's contemptible, and it's insulting to
21 us when people just repeat this lie that's been
22 promoted not only by Entergy, but it's been repeated
23 by Bloomberg and by Clinton and by de Blasio and
24 speakers in this room. And if you're concerned about
25 jobs, then you need a renewable program, and you need

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1 an offshore wind farm, and you need all of these
2 things that will provide jobs without poisoning the
3 environment. I think you're out of your fucking
4 minds if you're going to continue with one inspecting
5 Reactor 3, or keeping any of it open because it's a
6 danger, and you're not only a public health danger,
7 you're a threat to our rivers and our wildlife, but
8 you're a major threat to homeland security. I'm from
9 New York City, and I don't feel secure. I don't feel
10 secure even more so now after I have heard your
11 presentations.

12 I want to say that the first NRC hearing
13 I attended was the most surreal political experience
14 I had in a very long lifetime. It started by a
15 presentation that boasted of the hundreds of safety
16 inspections that were given exemptions and the safety
17 requirements that they gave exemptions to that were
18 issued that year. I thought I had heard 1,100.
19 (Inaudible) tells me that that thing five years ago
20 was maybe 110.

21 You can check your records, but it was
22 off the wall. What I heard here today, I thought you
23 haven't learned anything. I've been at the last
24 bunch of hearings. You've heard the testimony, and
25 the same shit is coming down the line. When I was

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1 walked in, I found this button. It says, "Indian
2 Point, safe, secure, and vital." Safe, I think has
3 been clear. And then on top of that, the AIM pipeline
4 is totaled, so close it down, and stop pretending
5 that you represent anything but Entergy's profits.

6 MR. KLUKAN: Thank you.

7 (Applause.)

8 MR. KLUKAN: Bruce Green is up next. He
9 will be followed by Barrett (Phonetic) Silver, and
10 then Patricia Soto. So again, Mr. Green, you're up
11 next.

12 MR. GREEN: Hello, good evening. My name
13 is Bruce Green, and I'm the president of Brooklyn
14 Anti-Violence Coalition out of Brooklyn. And, as an
15 active member in my community, I speak here today on
16 health and safety issues of my neighbors. Right now,
17 New York City violates multiple federal clean air
18 regulations. Far too long, poor air qualities in our
19 communities have led to alarming high asthma rates,
20 placing most of our vulnerable residents at
21 (Inaudible).

22 Despite this, there's a continuing
23 discussion about shutting down Indian Point. This
24 is a facility that is our largest source of clean
25 electricity, and study shows that closing Indian

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1 Point would lead to significant higher levels of air
2 pollution. Higher levels of air pollution means more
3 asthma attacks, respiratory disease in my community.
4 There's no reason that should occur. Indian Point
5 is capable of providing clean power for many years
6 into the future. I just want to add, Reggie Bowman
7 spoke earlier. He said he represented, at one point,
8 over 400,000 residents in New York City housing. And
9 what I'm hearing is a partnership that could be
10 created. Take some of these inner city youth to
11 work, building the windmills and the solar
12 energy -- I'm sorry, guys. This is something I'm
13 adding to this.

14 I mean, we can put some folks to work
15 that don't have work and teach them how to feed
16 themselves, and then we could come to --- as we close
17 out in one area, we can open up in another. But we
18 have thousands of young people down city that need
19 jobs. We have closed community centers that we can
20 use to teach and train them in. Thank you.

21 MR. KLUKAN: Thank you.

22 (Applause.)

23 MR. KLUKAN: Next up is Barrett Silver,
24 followed by Patricia Soto, and then John Ravitz.

25 MR. SILVER: My name is Barrett Silver,

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1 and I live in Chappaqua. It's about 11 miles from
2 the Indian Point plants. I've been attending the
3 Nuclear Regulatory Commission's meetings for about 14
4 or 15 years now. First, I want to thank you for what
5 I realize must be quite a thankless job. It can't
6 be fun to come to these open public hearings every
7 year and have abuse hurled at you, and have people
8 that don't fully understand the risks complain about
9 things that maybe are beyond their ability to fully
10 understand. But, I've seen different issues come in
11 and out of the spotlight over the past 14 years. For
12 a while there, we were worried about evacuation plans
13 that we didn't think were workable, and then we were
14 also worried about some fire safety issues that were
15 never fully resolved.

16 Now we're talking about gas pipelines and
17 cracked bolts in the reactors. At other points, we
18 were talking about earthquake risks, tritium leaks,
19 siren malfunctions and Hudson River fish kills. At
20 some point, we thought well, maybe this will all go
21 away because the plants won't get their license
22 renewed, and they won't be able to operate once that
23 happens.

24 Well, that didn't really work out the way
25 we were expecting because we still have plants

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1 operating without licenses. I don't understand that,
2 and I don't understand the thinking that goes behind
3 the idea that we can look at each one of these risks
4 in isolation and not learn the lessons from the
5 failures that have occurred in Chernobyl and at
6 Fukushima, where there were multiple simultaneous
7 failures. I'd like to ask you what it would take for
8 you to actually close these plants down? I want to
9 have a specific example of what would need to occur
10 for you to take a proactive stance. Give me one
11 example of something that would actually cause you to
12 close these plants.

13 PARTICIPANT: (Inaudible) before a
14 meltdown.

15 PARTICIPANT: Sorry. We would close the
16 plant if the plant was operating unsafely. We have
17 done so with --- as an example ---

18 MR. SILVER: Please define what you mean
19 specifically.

20 PARTICIPANT: For example, we have
21 issued -- back in 1987, we issued an order to shut
22 down Peach Bottom. That was done, and I recall that
23 the region administrator at the time went to the
24 president of the company, handed him a shutdown order,
25 and they shut down immediately.

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1 MR. SILVER: Please give me a specific
2 example of something that would cause you to close
3 these plants.

4 PARTICIPANT: The issue associated with
5 Peach Bottom was sleeping operators.

6 PARTICIPANT: What?

7 PARTICIPANT: Sleeping operators.

8 (Simultaneous speaking.)

9 PARTICIPANT: So the plant was shut down.
10 It was shut down (Inaudible) and until the licensee
11 can demonstrate that it can ensure the safety and the
12 plant, and we did not allow them to start up until
13 that occurred.

14 MR. SILVER: Can you give me an example
15 of criteria where you take multiple risks into account
16 as they could fail simultaneously? Because that's
17 been the pattern where we've had catastrophic dangers
18 occur.

19 PARTICIPANT: So, relative to our
20 probabilistic risk analysis, we do assume multiple
21 failures, and we do analyze the risks associated with
22 it. That's inherent in our oversight process in our
23 assessment of safety. And that's integrated into our
24 oversight process, it's integrated into many of the
25 actions that we do and take. That ensures safety.

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1 We weigh the risks and make sure that the appropriate
2 actions are taken by the licensee.

3 MR. SILVER: Well I have to say that for
4 someone who has been an observer of this process for
5 many years, we start to lose confidence in the actual
6 possibility that that outcome could occur because we
7 see, year after year, that regardless of what happens,
8 they're either green or white ratings, and they never
9 seem to make any difference.

10 PARTICIPANT: Thank you.

11 (Applause.)

12 MS. SOTO: Good evening. My name is
13 Patricia Soto, and I'm the former president of the
14 League of Women Voters of Rockland County. My league
15 formed a local study group several years ago, which
16 studied the functions of nuclear plants, in general,
17 and Indian Point, specifically. We also received a
18 physical tour of the Indian Point facility.

19 After further study and discussion, we
20 reached consensus, and the local league consensus
21 resulted in a program to support action to close
22 Indian Point for the protection of the health and
23 safety of the community and for transportation and
24 disposal of waste materials and for evacuation plans.
25 Although we were impressed with the high standard

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1 safety measures (Inaudible) by you, the administration
2 and staff at Indian Point every day.

3 They have made strides toward improving
4 communication and evacuation plans every year, we
5 still are concerned about the waste storage and its
6 potential danger to the surrounding community given
7 natural or other disasters. (Inaudible) Indian Point
8 were to close tomorrow, there's probably (Inaudible)
9 years. (Inaudible) the various solutions for
10 transportation (Inaudible) have been suggested and
11 have not been successful. (Inaudible) which is
12 becoming more and more densely populated, has not
13 been able to be implemented. We feel that as the
14 plant ages and (Inaudible) storage takes up more and
15 more space, it needs to be --- this becomes
16 increasingly important and needs to be addressed now.
17 Thank you for your time and for the opportunity to
18 comment.

19 MR. KLUKAN: Thank you. Next up is John
20 Ravitz (Phonetic), followed by Edie Kantralowicz
21 (Phonetic), and then Frank Fraley (Phonetic), okay
22 but next up is, again, John Ravitz.

23 MR. RAVITZ: Thank you. I do have a
24 slide. I don't know if the slides are still -- thank
25 you very much. Good evening, and again, thank you

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1 for your service and for being here. My name is John
2 Ravitz. I'm the executive vice president and chief
3 operating officer for the Business Council of
4 Westchester.

5 We are the largest business membership
6 organization in Westchester County. And one of our
7 continuing priorities through our legislative agenda
8 is the re-licensing of Indian Point, and if we could
9 go to the next slide please. We did an independent
10 study, an assessment of what would happen if the plant
11 were to close in Westchester County. And again, the
12 numbers speak for themselves. Thirty three hundred
13 jobs would be lost. Those are 3,300 families that
14 would be affected by the closing of Indian Point.
15 The economic, \$11.5 billion in lost economic output.
16 The spike in electricity costs would be plus 6.3
17 percent.

18 Now, remember, we're trying to bring
19 businesses back to Westchester County to create jobs
20 for the residents of Westchester County. What
21 message would it send when businesses around the
22 country see the spike in electricity costs if the
23 plant were to close? And we looked at the number of
24 all of us who are taxpayers here, \$374 million more
25 would be paid by consumers annually. Next slide

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1 please. We see the probability of significant
2 electric outages across the county.

3 Seventy-five million dollars in property
4 taxes and fees that, again, would be lost in all of
5 our communities. And again, it's been talked about
6 today, but I think it should continue to be
7 highlighted about the responsible corporate support
8 that Entergy has given to every city, town and village
9 in Westchester County. Two million dollars to local
10 charities, that's not a small number. But more
11 importantly, think about the lives that are being
12 positively affected by the contributions that Entergy
13 has made to every municipality in Westchester County.
14 Now on another note, I was the former CEO of the
15 American Red Cross in Westchester County. And I sat
16 in on many tabletop exercises in which the Entergy
17 teams talked about preparedness, talked about
18 evacuation. They were serious; they were committed;
19 and no one in this room should ever think that safety
20 is not a top priority for the people who run that
21 plant 24/7.

22 So again, we, at the Business Council of
23 Westchester, when we talk about jobs, when we talk
24 about creating economic wealth for everyone in
25 Westchester County, the role of Indian Point plays a

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1 significant role. The role of Indian Point is
2 something that we count on, we need, and the re-
3 licensing should be put through as soon as possible.
4 Thank you again for your service.

5 MR. KLUKAN: Thank you.

6 (Applause.)

7 MS. KANTRALOWICZ: Hi, I'm Edie
8 Kantralowicz (Inaudible) for the Friends of Clear
9 Water. I have to say that many of us members of the
10 public are just totally baffled, at this point, and
11 it's not just about the bolts. Yes, we are baffled
12 how so many bolts could be missing in action and
13 floating around inside the reactor, and we are baffled
14 how Entergy could even consider starting Reactor 2
15 again until this situation is not only totally
16 corrected, but also totally understood, as to its
17 root causes, as requested by Friends of the Earth.
18 We're baffled how anyone, given the circumstances,
19 could consider postponing an immediate and thorough
20 inspection of Reactor 3.

21 But it goes much deeper than that. We're
22 baffled that Entergy and the NRC seem to be in
23 complete denial about what thin ice we are skating on
24 by allowing Indian Point reactors to continue
25 operating in the first place. We are baffled that

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1 there seems to be no understanding about the risk we
2 are taking, that on any given day the plant is
3 operating, an accident or seismic incident could
4 cause a meltdown of this aging (Inaudible) facility,
5 which is literally falling apart, and normal life for
6 this entire region could come to an end essentially
7 forever.

8 I will say that again. Indian Point has
9 the capacity to bring normal life in this region to
10 an end, essentially forever, like it happened at
11 Chernobyl, like it happened at Fukushima. We're
12 talking about the entire New York City metro, meaning
13 New York City, Westchester, the Hudson Valley, and
14 parts of New Jersey and Connecticut, and this is not
15 a remote risk, either. I am baffled that the parties
16 that have the responsibility for ensuring our safety
17 are choosing to close their eyes to that reality. We
18 know that this is the U.S. nuclear plant most likely
19 to experience reactor core damage from an earthquake.
20 We know that having a 42-inch gas pipeline right next
21 to it is a recipe for disaster.

22 We know that there is no realistic
23 evacuation plan and no possibility of such a plan,
24 and we know that the incidents and accidents are
25 becoming more and more frequent. Nuclear energy is

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1 unnecessary. I'm just really, really baffled that
2 we're still doing it. We don't need nuclear power
3 to meet our energy needs, and we don't need it to
4 meet our climate goals.

5 And if we close down Indian Point, we
6 don't need gas or fossil fuels to replace the energy.
7 We don't have to worry how to replace the power
8 because it's already been replaced by renewables, by
9 efficiency, by transmission upgrades. We won't get
10 more asthma. We won't have dirty air. We won't have
11 electricity increases, either, because Indian Point
12 doesn't supply 25 percent of New York City's
13 electricity. That is a lie, and we need to close
14 down Indian Point, and we need to do it now.

15 (APPLAUSE.)

16 MR. KLUKAN: Thank you.

17 MR. FRALEY: Good evening. My name is
18 Frank Fraley, and I'm president of Share New York.
19 Share is a non-profit coalition of organizations,
20 including community groups, local chambers of
21 commerce and houses of worship. We're committed to
22 ensuring the continued supply of reliable, clean, and
23 affordable electricity for all New Yorkers.

24 Today and in the future, the clean,
25 affordable power produced by Indian Point Energy

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1 Center is needed more than ever. Asthma and other
2 respiratory illnesses continue to plague urban
3 communities, especially the under-served communities
4 where many of our members live. Worse, the depth of
5 the problem is becoming clearer each year.

6 Just recently, New York University had a
7 study that showed that air pollution is linked to
8 nearly 16,000 premature births, at a cost of \$4.3
9 billion annually. Removing Indian Point from
10 service, a virtually emission-free source of power,
11 would worse an already bad problem. Replacement
12 electricity would almost certainly be generated by
13 fossil fuel-burning sources, as solar and wind are
14 unable to reach the scale of Indian Point's
15 generation. Nitric oxide, sulfur dioxide, and carbon
16 dioxide levels would all rise, and in lockstep, we'd
17 see an increase in asthma attacks, premature births,
18 and respiratory disease. Beyond the clean energy the
19 facility produces, Indian Point is a vital source of
20 electricity.

21 The importance of the facility has been
22 consistently recognized by the New York State
23 Independent System Operator, the independent group
24 charged with keeping our lights on, as Indian Point
25 generates 25 percent of New York City and

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1 Westchester's power. Furthermore, rigorous and
2 ongoing inspections have determined that the facility
3 is safe.

4 A safe facility with these benefits must
5 be allowed to continue to operate. Without Indian
6 Point, electric rates would rise, air quality would
7 be harmed, and thousands of jobs would be jeopardized.
8 For these reasons, Share and its member organizations
9 firmly support the continued operation of Indian
10 Point and call for the relicensing of this essential
11 facility. Thank you.

12 (Appause.)

13 MR. KLUKAN: Thank you.

14 (Appause.)

15 MR. KLUKAN: Next up, we have -- it's
16 either Michelle or Michael Lee. I feel bad because
17 I feel --

18 PARTICIPANT: Michelle.

19 MR. KLUKAN: Michelle, there you go.
20 Michelle Lee is up next, and then Deb Malone. So
21 Michelle Lee, and then Deb Malone.

22 MS. LEE: Okay, am I good? Okay, I'm going
23 to skip the big speech. I want to ask you some
24 questions. In your response to Paul -- and I
25 apologize. I have laryngitis. Maybe I can get a

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1 (Inaudible) accommodation, have a few extra seconds.
2 You said that the reason for the baffle bolts'
3 deterioration was three items, the neutron field,
4 susceptible material, and stress. Okay, the neutron
5 field, are you talking about the neutron flux? What
6 are you talking about?

7 PARTICIPANT: Yes, we're talking about
8 the neutron flux, it's (Inaudible) the core, so it's
9 generating a high concentration of (Simultaneous
10 speaking).

11 MS. LEE: And that is, because you believe
12 the down flow, you think that's affecting the neutron
13 flux?

14 PARTICIPANT: No, the down flow of
15 the -- between the baffle bolts and the core barrel,
16 the down flow is not associated with the neutron flux.
17 It's associated with a stress that's put on the bolts
18 (Simultaneous speaking).

19 MS. LEE: Okay, so that's the third item?

20 PARTICIPANT: That was the third factor.
21 Just to be clear, there's a lot of things that add
22 stress to the bolts beyond just the differential
23 pressure, but we're believing that there may be a
24 linkage here.

25 MS. LEE: Okay, so the neutron field

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1 issue, what precisely is different about Indian Point
2 from all other reactors?

3 PARTICIPANT: My comment, in terms of to
4 Paul, was associated with in terms of do we see any
5 kind of initial linkage? Not so much on the neutron
6 field. We do see susceptible bolts in what's called
7 (Simultaneous speaking).

8 MS. LEE: I'm sorry, can you move yourself
9 a little closer to the mic? I'm having trouble
10 hearing you.

11 PARTICIPANT: I'm sorry; is this better?
12 So, we are seeing that they are more susceptible bolts
13 than other bolts. For example, the bolts that we're
14 seeing more failure in is the Stainless Steel 347
15 (Phonetic) bolts.

16 MS. LEE: I'm sorry, 347?

17 PARTICIPANT: Three forty-seven. What
18 they have replaced in the replacement bolts is 316.
19 And we have seen much less failures in those. In
20 fact, we haven't seen any -- you can correct me if
21 I'm wrong (Inaudible) we haven't seen any, to date,
22 in the U.S. industry on 316 bolts. In fact, there's
23 edge bolts in the --- that tie together the former
24 plates at Indian Point. Those are actually 316 bolts
25 that are held -- based on a visual inspection, there

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1 was no defect identified in the edge bolts. While we
2 don't take credit for that, it does provide some
3 structural integrity for the baffle plates.

4 MS. LEE: What about the bolts in Indian
5 Point Unit 3? Are any of those 347?

6 PARTICIPANT: They're the same design,
7 in terms of the bolts in Indian Point 3 is 347.

8 MS. LEE: So the same problem material
9 is in Indian Point 3 as in Indian Point 2, with
10 respect to the bolts?

11 PARTICIPANT: Yes.

12 MS. LEE: Okay. Very interesting. And
13 that inspection's going to be delayed until 2017 still
14 (Simultaneous speaking)?

15 PARTICIPANT: Slides will be available .
16 Part of the basis for why we don't believe that
17 there's an immediate concern for Indian Point 3 is
18 because there is monitoring of loose parts and fuel
19 leaks. That should be an indication of any kind of
20 significant degradation associated with the baffle
21 bolts. In addition, we talked about less operating
22 time. And this is not since licensing, it's what we
23 call effective full power years. So Indian Point 3
24 has less, so what that means is they have cumulatively
25 less neutron flux.

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1 There is another factor, as well, in
2 terms of stress. There's actually a difference in
3 the design of Indian Point 3 versus Indian Point 2,
4 and operating history, in which there is actually
5 less stress on the bolts from the down (Inaudible),
6 as well as just operating history with respect to
7 Indian Point 3. They have had less trips over the
8 history of the plant than Indian Point 2.

9 MS. LEE: What about high burner fuel,
10 that adds to the problem of (Inaudible) heat, right?
11 (Simultaneous speaking) And I assume neutron flux,
12 correct?

13 PARTICIPANT: High burner fuel is fuel
14 that has been burned for more than 45 gigawatt days
15 per metric ton uranium. That probably doesn't mean
16 much. What the NRC did in their research -- I worked
17 in research for a while -- we did independent
18 verifications. And one of the things that we looked
19 at was high burner fuel, whether or not that would
20 impact the structure of those rods and (Inaudible)
21 those rods. Early indications, in terms of our
22 studies, we're not sure. And so, that was --- I
23 remember that was an area of concern. We continued
24 to do reviews and what we found is on additional
25 tests, it's less of a potential issue than we thought.

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1 We believe that there's not a safety impact here.
2 Some of the preliminary tests, itself, shows that the
3 fuel rods are much stronger than (Simultaneous
4 speaking).

5 MS. LEE: I'm not asking you about the
6 fuel rods, I'm asking you about the baffle bolts.

7 PARTICIPANT: I'm sorry, I thought you
8 were asking about high burner fuel.

9 MS. LEE: I'm talking about the effect
10 of the high burner fuel and conditions (Simultaneous
11 speaking) in the reactor core.

12 PARTICIPANT: That should not have any
13 impact, in terms of the neutron flux. It will still
14 have approximately -- when you operate at 100 percent
15 power, you generate --

16 MS. LEE: Yes, right. You have U.S. rod
17 studies that say neutron flux has a direct effect -- I
18 mean that high burner fuel has a direct effect on
19 neutron flux (Inaudible)?

20 PARTICIPANT: So high burner fuel, the
21 concern was the neutron flux would (Inaudible) the
22 rods.

23 MS. LEE: But that's what was looked at,
24 but it's actually the alloys in the metals that it
25 has an effect on.

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1 PARTICIPANT: Yes. So I know we're going
2 back and forth. I think maybe this is probably a
3 discussion (Inaudible) between the high burner fuel
4 and the impact on neutron (Inaudible) on the fuel
5 versus the baffle bolts. We can certainly discuss
6 that, but I think at this point, probably we're having
7 some difficulty in communicating.

8 (Simultaneous speaking.)

9 PARTICIPANT: -- neutron flux, we're
10 talking about what impact on what material.

11 MR. KLUKAN: Yeah, how about one more
12 question or comment?

13 MS. LEE: Okay. I'm sorry?

14 MR. KLUKAN: Just one more question or
15 comment because -- the back and forth I've had a
16 hard time keeping track.

17 MS. LEE: I understand. I just really
18 want to correct the record here. You said that your
19 agency and Entergy were very well aware that there
20 could be -- that these baffle bolt problems --- during
21 the Atomic Safety Licensing Board hearings, that was
22 not the case. There was actually an assertion made
23 that there was not going to be a problem to worry
24 about --- so the actual record on this issue, of
25 foresight is really a lot to be desired. Thank you.

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1 MR. KLUKAN: Thank you.

2 (Applause.)

3 MR. KLUKAN: All right, next up is Deb
4 Malone. She will be followed by Kyleen (Inaudible).

5 MS. MALONE: And I have slides.

6 MR. KLUKAN: Okay. Then she will be
7 followed by Bill Meady (Phonetic). So next up is
8 Deb, followed by Kyleen (Phonetic), and then Bill
9 Meady.

10 MS. MALONE: My name is Deb Malone, and
11 I am the executive director of the Hudson Valley
12 Gateway Chamber of Commerce. We represent over 500
13 businesses and organizations in the lower Hudson
14 Valley region. The Hudson Valley Gateway Chamber of
15 Commerce supports the continued operation of Indian
16 Point because we know the important role that a clean
17 and safe power source plays in supporting the economy.
18 Businesses need affordable electricity to operate and
19 expand, and only Indian Point can provide this in a
20 clean, reliable manner. Next slide please. There is
21 no way to replace Indian Point's 2,000 megawatts of
22 power without turning to fossil fuel plants that belch
23 soot and toxic emissions. In fact, Indian Point's
24 operation prevents over 8.5 million tons of carbon
25 dioxide annually. Next slide please. Our economy will

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1 take a hard blow if Indian Point is closed. Providing
2 more than \$140 million a year in income to local
3 families, these wages support about 2,800 more jobs
4 in our communities.

5 Few businesses in the area have had the
6 impact Indian Point has had for our local economy.
7 Seeing Indian Point leave would cause irreparable
8 damages. The Nuclear Regulatory Commission conducts
9 safety inspections of every nuclear power plant in
10 the country, and Indian Point has long been the most
11 scrutinized. These inspections have all reached the
12 same conclusion, that Indian Point is a top of the
13 line model for safety, and Indian Point should receive
14 its license renewal.

15 Indian Point is more than just a safe
16 energy source. It is the key to driving economic
17 growth while attaining New York State's emissions
18 goals. Let me say, in closing, why this particular
19 public hearing is not related to license renewal. I
20 think it's a travesty that the government has taken
21 more than nine years and counting to review Indian
22 Point's license renewal application. Thousands upon
23 thousands of hours of inspections and reviews have
24 demonstrated the plant is safe. It is time for the
25 NRC to award this safe facility the renewed license

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1 it deserves. The company has made the investments
2 needed to make sure the plant runs safely, and the
3 employees and the public need to know we can count on
4 this critical resource in the future. Thank you.

5 (Appleause.)

6 MR. KLUKAN: Thank you. Okay, Kyleen is
7 next, followed by Bill Meady, who will then be
8 followed by Jane Califf (Phonetic).

9 PARTICIPANT: Okay. Thank you. My name
10 is (Inaudible), and I've been protesting Indian Point
11 for 39 years. So I am baffled that I still have to
12 come here and speak before you. I learned about
13 nuclear energy in college -- that was 39 years
14 ago -- in biology for survival.

15 And once I learned that we're risking
16 life on Earth to boil water, make steam, and turn a
17 turbine, that was it. I started protesting. Then
18 came Three Mile Island, then came Chernobyl, and then
19 came Fukushima. After Fukushima, I thought I would
20 be joined by billions. I thought the whole world
21 would speak up and say this is unacceptable. This
22 risk is totally unacceptable. But they didn't,
23 because people believe that scientists know what
24 they're doing. I don't. I've been doing this for
25 39 years. You said that all the problems at Indian

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1 Point were on the non-nuclear side of the plant, and
2 now they're in your core.

3 So I hope that you really look at this
4 issue of Indian Point with the two earthquake faults,
5 the bolts, these analyses that go on forever,
6 mechanical failure after mechanical failure, human
7 mistakes, vents that are left open and, for three
8 days, radiation is going over the Hudson Valley. How
9 many transmission fires do we need? We're boiling
10 water to make steam to turn a turbine. Shut Indian
11 Point down so I don't have to come here the 40th year.
12 Thank you.

13 MR. KLUKAN: Thank you.

14 PARTICIPANT: Good evening. I'm here on
15 behalf of Bill Meady, president and CEO of the
16 Business Council of Westchester. I'm here to express
17 our support for continued operation of Indian Point
18 Entergy Center. Indian Point is a significant source
19 of power, putting out over 2,000 megawatts of
20 electricity for homes/businesses in Westchester
21 County, and responsible for 11 percent of all power
22 used in New York State. Westchester County runs on
23 Indian Point. Its reliable power to hospitals,
24 schools, and offices throughout the region has
25 allowed Westchester to grow economically. Industry

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1 is attracted to affordable, reliable power available
2 as long as Indian Point continues to operate. Indian
3 Point supports approximately 3,300 jobs in
4 Westchester County, and up to 40,000 jobs in New York
5 State.

6 New York Independent System Operator,
7 current and past New York City mayoral
8 administrations, and the Charles River Association
9 have all concluded Indian Point is necessary to
10 maintain low electricity rates and clean air in the
11 region. The Association is focused on promoting
12 economic development in Westchester and in coaching
13 businesses to grow throughout the region. Indian
14 Point's continued operation is necessary to achieve
15 this goal and maintain a strong regional economy.
16 Thank you.

17 PARTICIPANT: Shut it down.

18 MR. KLUKAN: Thank you. We're at 10:06,
19 so these will be our last two speakers of the evening.
20 Next up is Jane Califf. Is she in the room? Okay,
21 and then our very last speaker will be Al Samuels.
22 Is Al here?

23 PARTICIPANT: That's ridiculous.

24 PARTICIPANT: There are people here
25 (Simultaneous speaking).

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1 PARTICIPANT: What happened to 10:30?
2 MR. KLUKAN: I announced that we were
3 ending at 10:10.

4 (Simultaneous speaking.)

5 MR. KLUKAN: We can end the meeting now,
6 if you'd like (Simultaneous speaking).

7 PARTICIPANT: (Simultaneous speaking) I
8 was not called. I signed up at 6:30.

9 PARTICIPANT: Unacceptable. I signed up
10 at 6:00.

11 MR. KLUKAN: We have the list outside.
12 I can show you I've been going in order. I apologize
13 to those of you --

14 PARTICIPANT: (Inaudible.)

15 PARTICIPANT: That's not true.

16 MR. KLUKAN: I will gladly go over the
17 list with you outside this room. Would you please
18 like to speak, so we can at least get two additional
19 people in?

20 PARTICIPANT: (Inaudible.)

21 MS. CALIFF: My name is Jane Califf, but
22 I think there was (Inaudible).

23 MR. KLUKAN: No, Jane, you're next. Go
24 for it.

25 MS. CALIFF: Okay. I live in Bloomfield,

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1 New Jersey. And I --- my town lies within the 50-mile
2 radius where, if there's a meltdown at Indian Point,
3 my town will become uninhabitable. And so for many
4 of the reasons that have been mentioned today, I've
5 always had an interest in this nuclear plant.

6 The thing that drives --- that anybody I
7 talk to says there's a nuclear plant on two earthquake
8 fault lines, I don't even have to tell them anything
9 else. That's like crazy. I mean , I don't know ---
10 you could have the most perfect plant, maybe, but if
11 they're on top of two earthquake fault lines, that's
12 really a hopeless situation. We could have one. We
13 do have earthquakes in New York and the East Coast.

14 And then today I --- recently, I've
15 learned about the Spectra pipeline. I heard here,
16 somebody up here on the platform, from the NRC, say
17 that they have -- or somebody from the audience who's
18 involved with the fire department -- that there's a
19 way, if there's an explosion of the Spectra pipeline
20 that there's good fire equipment to take care of it,
21 but I am related --- I work with a group called
22 (Inaudible) station in New Jersey and the Williams
23 (Inaudible) Gas Company built a compressor station to
24 push more gas through a 60 yard pipeline. And when
25 we asked them, "Suppose it explodes, what's going to

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1 happen?" "Oh, you have to call Texas, and then Texas
2 will quickly call the appropriate trained people in
3 the fire industry to put it out." Because the
4 ordinary fire departments cannot put out gas fires.
5 They just can't do it.

6 So for you to agree to put a gas pipeline,
7 42 inches, with all that gas going through, right
8 next to this facility that could have a meltdown for
9 many of the reasons that people caused --- said today,
10 is just unconscionable, I believe. And I would like
11 -- so that's really something you should be thinking
12 about because there's no way for an ordinary fire
13 department to put out a gas fire, especially if it's
14 next to a nuclear power plant which is going to
15 probably have all kinds of problems after that.

16 And I would like to say, in closing, I
17 have a lot of sympathy for workers who need jobs and
18 the whole idea that if you don't have Indian Point,
19 you have to have fossil fuels. Why don't people
20 realize now that solar energy is the largest growing
21 source of energy in this country? And if all the
22 subsidies that go to promoting fossil fuels and the
23 nuclear industry went to support clean energy like
24 solar energy, we would have lots of jobs, millions of
25 jobs all over the country. There's no reason why

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1 there can't be tens of thousands of jobs that take
2 the place of the ones that would be ended by the fact
3 that Indian Point will be closed. So there are many
4 reasons to close this plant, and hopefully you'll
5 listen to the public finally, after all these many
6 endless years of people coming -- I think people have
7 to become even more militant and think of more
8 creative ways to make these people listen.

9 (Applause.)

10 MR. KLUKAN: Thank you.

16 MR. KLUKAN: Mr. Samuels, would you like
17 to begin?

18 MR. SAMUELS: Thank you. Gentlemen, my
19 name is Al Samuels. I'm the president and CEO of the
20 Rockland Business Association. We are a regional
21 association dealing with advocacy, public policy,
22 economic development. Twenty-five percent of our
23 membership is from outside of Rockland; 8 percent
24 happens to be from Westchester. Technically, we do
25 not derive a direct benefit from Indian Point.

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1 Indian Point does not supply energy to Rockland
2 County. But we are, as I said, very regional in our
3 approach. I have the privilege of serving as a voting
4 member on the Regional Economic Development Council.
5 I have the opportunity to gain a perspective, from
6 these various roles that I play, to know the
7 importance of Indian Point to the entire region. You
8 know gentlemen know it, too. I have listened
9 tonight, as I have for the past seven or eight years
10 coming to these meetings, to attacks on your
11 integrity.

12 Maybe we have to evaluate, in the
13 business community, the fact that we have confidence
14 in the Nuclear Regulatory Commission, maybe the
15 credentials that you gentlemen have. Maybe we're
16 impressed by them, and we shouldn't be. For those of
17 you who have served in the military and have been
18 involved with nuclear subs, I have great admiration
19 for you. I, too, was part of the Department of the
20 Navy, but we joked.

21 We said the men's department was the
22 Marine Corps. I know you knew where I was going with
23 that. We thank you for the due diligence that you
24 provide every time you go through these examinations.
25 We appreciate the fact that you have answered the

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1 questions, even though your answers aren't acceptable
2 to people who absolutely do not want to hear what you
3 have to say unless you are saying what they want to
4 hear. It's an unfortunate situation that in economic
5 development, we have that in so many quarters. This
6 one just happens to be magnified because of the fear
7 that exists with regard to nuclear energy. We think
8 it's safe. We think it's clean. We think it's vital
9 to our region, not just to Westchester, not just to
10 New York City, but to the entire region of the
11 mid-Hudson Valley.

12 This is an important component to what we
13 do in economic development in being able to attract
14 business. One of the fastest growing businesses in
15 our region, industries that are coming here, is the
16 cluster of data centers. It's one of the most
17 intensive energy-using industries, but it's clean,
18 and it's reliable, and they're good-paying jobs. We
19 have the ability to provide that in Westchester and
20 in the surrounding area.

21 So I want to thank you for what you've
22 done. I feel badly for the personal attacks that you
23 have experienced here tonight, as I know you have
24 before. We believe in it. You know what, if I'm the
25 last speaker, and I'm not getting any signs, but I'm

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1 going to end now. I'd like to end it on a note that
2 maybe people can all chuckle over. I'm two years
3 away from being twice as old as Indian Point. If
4 science and medicine can keep me going, I am convinced
5 it can keep Indian Point going. God bless.

6 (Applause.)

7 MR. KLUKAN: All right, thank you.

8 PARTICIPANT: Stop speaking for other
9 people. You're not speaking for me. I have been
10 here since 6:00. I feel that I have the right to
11 have my views spoken to. I respect all of you, and
12 I would like to say my three minutes.

13 PARTICIPANT: Thank you. We will be out
14 in the hallway. We can certainly respond to any
15 questions that you have. For this meeting, I do
16 appreciate everybody's patience.

17 PARTICIPANT: You are not doing a good
18 job. This is outrageous.

19 MR. KLUKAN: I'm sorry. I can show you
20 the list.

21 PARTICIPANT: This is outrageous.

22 MR. KLUKAN: I can show you the list. We
23 actually got through --

24 PARTICIPANT: I want to see the list.

25 MR. KLUKAN: Fine, they're right here.

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1 They're right here. We actually got through more
2 speakers than last year.

3 PARTICIPANT: I appreciate you. And
4 this is the fact, you know, without a nuclear
5 accident.

6 PARTICIPANT: Okay. Here's three lists.

7 MR. KLUKAN: Excuse me, for the audience,
8 I'm sorry we did not get to you tonight. If you'd
9 like to provide written comments to me, either in
10 person or via email, please do so. I will gladly
11 append it to the transcript for the meeting.

12 PARTICIPANT: The list I signed is not
13 here.

14 MR. KLUKAN: What list?

15 PARTICIPANT: Yes, it's on the back.

16 PARTICIPANT: Now you're speaking for me?
17 MR. KLUKAN: If you would please vacate
18 the room, so the hotel staff can start to tear down.

19 PARTICIPANT: This is garbage that you're
20 doing this again. This is garbage. I'm sorry, it's
21 garbage. We will not accept this as the way the NRC
22 runs a public hearing. In our region, public
23 hearings let everyone speak.

24 PARTICIPANT: I came here, and I signed
25 the --

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1 PARTICIPANT: It's all garbage. The NRC
2 should not be allowed --

3 PARTICIPANT: I am not going to be
4 escorted from this room.

5 PARTICIPANT: Yes, you are.

6 PARTICIPANT: The NRC does not have the
7 right --

8 PARTICIPANT: Let's go outside and --

9 (Whereupon, the above-entitled hearing
10 was concluded at approximately 10:10 p.m.)

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