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Three Empire State Plaza, Albany, NY 12223-1350
www.dps.ny.gov

May 25, 2023

VIA EMAIL

Hon. Michelle L. Phillips
Secretary to the Commission
3 Empire State Plaza
Albany, NY 12223-1350

Re: Matter No. 21-01188 – In the Matter of the Indian Point Closure Task Force and Indian Point Decommissioning Oversight Board.

Dear Secretary Phillips:

Please accept for filing in the above-captioned matter, the April 27 2023 Indian Point Closure Task Force and Indian Point Decommissioning Oversight Board meeting transcript. Should you have any questions regarding this filing, please contact me. Thank you.

Respectfully submitted,

Tom Kaczmarek
Executive Director
Indian Point Closure Task Force
Indian Point Decommissioning Oversight Board

1 4/27/23 - Indian Point - 21-01188

2 STATE OF NEW YORK

3 DEPARTMENT OF PUBLIC SERVICE

4

5 MATTER 21-01188 - In the Matter of the Indian

6 Point Closure Task Force and Indian Point

7 Decommissioning Oversight Board.

8 JOINT MEETING AND PUBLIC STATEMENT HEARING

9 DATE: April 27, 2023 at 6:01 p.m.

10 VENUE: ZOOM

11 BEFORE: TOM CONGDON, Chairperson

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20 Reported by Danielle Christian

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2 (The meeting commenced at 6:01 p.m.)

3 CHAIR CONGDON: The Decommissioning
4 Oversight Board. I'm going to ask Tom Kaczmarek, our
5 executive director, to go through roll call.

6 MR. KACZMAREK: Thank you, Tom.

7 Good evening and welcome to tonight's
8 joint meeting of the Indian Point Closure Task Force
9 and Decommissioning Board. My name is Tom Kaczmarek
10 and I serve as the executive director. As Tom
11 mentioned, we'll quickly move through the roll call.
12 In fact, in lieu of the traditional roll call for the
13 sake of time, the attendance list you see on your
14 screen --.

15 And can we enlarge that for the room?

16 The attendance list you see on the
17 screen reflects those board members who R.S.V.P.'d
18 for tonight's meeting and are present before you in
19 Cortlandt Town Hall or joining us remotely via Zoom.

20 If you are in attendance as a board
21 member, but do not see your name reflected on the
22 screen, please contact me to ensure your presence is
23 recorded for the record.

24 Before I turn it over to Tom Congdon,
25 I want to provide just a few brief reminders to our

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2 panelists and participants to promote a smooth
3 meeting.

4 For our in-person Board members and
5 guest presenters, please speak into the mic to ensure
6 your comments are clearly heard and accurately
7 recorded. For our panelists joining by Zoom, please
8 keep your mics muted unless you are speaking. And to
9 our Zoom participants, please reserve the chat
10 feature for reporting technical issues to our audio-
11 visual team. All other questions captured in the Q
12 and A field are able to be saved and reviewed after
13 meeting.

14 Finally, all speakers tonight are
15 asked to state their name before making statements.
16 This will support our court reporter with accurately
17 recording tonight's meeting.

18 With that, I'd like to turn it back to
19 you, Tom.

20 CHAIR CONGDON: Thank you, Tom.

21 If I could go to the next slide,
22 please. So as Tom said, this is actually a joint
23 meeting of the Indian Point Closure Task Force and
24 the Decommissioning Oversight Board. In recent
25 years, we've -- we've mostly had Decommissioning

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2 Oversight Board business, but I do have a few Task
3 Force related items to announce tonight.

4 As a reminder, the Task Force was
5 established by statute. The membership of the Task
6 Force overlaps with the Decommissioning Oversight
7 Board with the exception of two individuals, our
8 independent technical expert, Dave Lochbaum, and our
9 Riverkeeper representative, Richard Webster, on the
10 D.O.B.

11 The Task Force was charged mostly with
12 working on the economic impacts associated with the
13 closure of Indian Point, helping the tax base,
14 working with the community, working with the
15 employees on the -- the job transitions.

16 And we also helped advise the State of
17 New York on how to spend money from the Entergy
18 closure settlement fund. This was a \$15 million fund
19 that funds community and environmental benefit
20 projects, and we announced awards from those projects
21 a couple of years ago. And I have a number of
22 important updates to bring to the table tonight.

23 First, the biggest award was to the
24 Town of Cortlandt and Village of Buchanan, a \$7
25 million grant for sewer infrastructure upgrades and

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2 new connections. For that project to really get
3 going, there needs to be an intermunicipal agreement
4 between the town and the village.

5 And we're really pleased to report
6 that the town and the village reached agreement on
7 that agreement and the sewer project will be
8 progressing. We're also very grateful to the town
9 and the village; in the context of reaching that
10 agreement, they also reduced the size of the grant by
11 \$250,000 to make funding available for workforce
12 training.

13 There was an application for funds
14 from the local steam fitters, Local 21. Tom Carey is
15 here. And that \$250,000 was awarded for purchase of
16 welding equipment to do workforce retraining at their
17 union hall.

18 And -- and lastly, Dr. Lauro is not
19 here yet, but we're really pleased to be working with
20 Dr. Lauro, the -- the interim superintendent of the
21 Hendrick Hudson School District, who had requested
22 that we examine opportunities for funding for
23 performing an environmental assessment at the B.V.
24 Elementary School.

25 This is the school that's located

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2 4,000 feet or so away from the Indian Point site.
3 And there is a number of active community members
4 concerned about the environmental conditions at the
5 school. We have established a -- a working group of
6 the D.O.B. that is examining how to best do
7 environmental monitoring throughout decommissioning,
8 especially when the heavy demolition begins.

9 And that work is being funded now
10 through the Department of Public Service, the agency
11 that I work for. And we freed up the \$500,000 grant
12 that was going towards that purpose now for the
13 school district to conduct the assessment that the
14 parent community has been seeking.

15 So we're really pleased to support
16 that effort.

17 Before I move on, any words from our
18 Task Force members on this? Tom?

19 MR. CAREY: Good evening, everybody.
20 First, I would like to thank the Community
21 Environmental Benefit Fund. And I also want to
22 thank, it's very important that I -- I thank Dr.
23 Richard Becker and Mayor Theresa Knickerbocker,
24 because without their help we wouldn't have gotten
25 this funding that's going to be necessary to provide

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2 training for the members of Local 21 Plumbers and
3 steam fitters that no longer have work at the Indian
4 Point Center.

5 The retraining tools will be ... welding
6 and some highly technical skill training equipment
7 that will be needed for these members so I couldn't
8 -- I couldn't to accept this without the help of Dr.
9 Becker and Mayor Theresa Knickerbocker so thank you
10 very much.

11 CHAIR CONGDON: Thank you, Tom.

12 Next slide please. So on to our
13 Decommissioning Oversight Board business, for some of
14 you tuning in for the first time, the Decommissioning
15 Oversight Board was established --.

16 Dr. Lauro, welcome. Dr. Lauro, we
17 just -- we talked about the \$500,000 grant for the
18 school district for the environmental assessment at
19 the B.V. School. Sorry, I know you're just sitting
20 down, but if you wanted to add anything about the
21 school's plans regarding the assessment, I wanted to
22 give you the mic.

23 DR. LAURO: Thank you.

24 Hello everyone. No, I'm just very
25 pleased and want to thank the State for the

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2 consideration. Concern of the community,
3 particularly the school community, was about the
4 safety, of course, but getting a benchmark in terms
5 of our school and how it environmentally is safe.

6 So for two reasons, I'm happy about
7 it. One, we would get that and I'd like to know that
8 it's cleared. From that aspect of it, I thank the
9 State and look forward to implementing. What we plan
10 on doing is monitoring. We've been working with a
11 company to look at something about the radiation and
12 so on.

13 And our next step, knowing that we
14 have the money, would be to move to a plan and put
15 one in place so that it would be here well before any
16 of the demolition.

17 CHAIR CONGDON: Excellent. Thank you.
18 And we're -- we're going to talk more during the
19 Holtec presentation about their schedule in the heavy
20 demolition. And so I think that'll be important
21 information to understand how we sync up the work
22 that we're doing at the State for the community air
23 monitoring and the work that the school is going to
24 be planning.

25 So, thank you, and welcome and sorry -

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2 - sorry to --

3 DR. LAURO: That's all right.

4 CHAIR CONGDON: -- jump right in --

5 DR. LAURO: That's okay.

6 CHAIR CONGDON: -- as you sat down.

7 DR. LAURO: There was traffic and I
8 got stuck, but thank you.

9 CHAIR CONGDON: Parking is a bear,
10 too.

11 DR. LAURO: Yeah.

12 CHAIR CONGDON: Okay. On the
13 Decommissioning Oversight Board, we want to go over a
14 few things. For the newcomers, what the D.O.B. is,
15 the D.O.B. was established by the New York State
16 Department of Public Service. It consists of the
17 relevant state agencies that have a role to play, any
18 role whatsoever to play in either oversight or
19 assisting the community in transition during the
20 decommissioning process.

21 We also have virtually all of the
22 local and state elected officials that represent the
23 host communities with us. And we really appreciate
24 their participation. Our goal of the Decommissioning
25 Oversight Board is help to ensure decommissioning is

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2 safe, prompt, and thorough. Safe, prompt, and
3 thorough, that's been our mantra.

4 Those were the principles that we --
5 we -- we agreed to when all of the parties involved
6 in the Public Service Commission proceeding reviewing
7 the sale of Indian Point, from Entergy to Holtec,
8 kept in mind: safe, prompt, and thorough.

9 These were the key public interest
10 principles that guided the agreement to allow Holtec
11 to take control of the property. And that agreement
12 was signed by every single party that was in that
13 proceeding. And those included the State Department
14 of Environmental Conservation, Department of Public
15 Service, the Attorney General, Westchester County,
16 Town of Cortlandt, Village of Buchanan, Riverkeeper,
17 Public Utility Law Project, and others.

18 There are key conditions, public
19 interest conditions included in the Public Service
20 Commission sale, agreement -- I'm sorry, the -- the --
21 - the approval of the sale. And for the
22 Decommissioning Oversight Board, we want to make sure
23 that we're living up to those principles.

24 Our success as a D.O.B. has really
25 been built on mutual respect and communication.

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2 Communication among the D.O.B. members, communication
3 between state agencies, but most importantly,
4 communication between government and the people we
5 represent.

6 And we are working on always
7 improving. We listen to the feedback we receive. We
8 provide as much opportunity as is feasible for public
9 comment and public participation. We've added number
10 of meetings with public forums where there can be
11 information exchanged and questions and answers.

12 We've worked with the parent teacher
13 association to come into the community with our
14 experts. We've added public statement hearing
15 opportunities, including just a couple of nights ago,
16 knowing that tonight would there be strong interest
17 in public statement --.

18 (The meeting was interrupted.)

19 CHAIR CONGDON: That was strange.

20 UNIDENTIFIED SPEAKER: Two different
21 meetings going on there?

22 CHAIR CONGDON: That was like a --
23 there was a parallel universe of, you know, maybe
24 that was the Pilgrim Decommissioning Oversight Board
25 or something.

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2 But through that communication, as I
3 said, we -- we listen, we adjust, and when the facts
4 are presented that show there may be gaps in our
5 oversight, we look to take action to fill them.

6 So, next slide, please. So just as
7 some examples, through our discussions as a D.O.B.,
8 we understood Holtec made some filings with the
9 N.R.C., seeking some exemptions. These are typical
10 and common for most decommissioning projects because
11 the N.R.C. regulations are really -- are really for
12 an operating nuclear power plant, not for a
13 decommissioning site. And so it's very normal,
14 typical for decommissioning outfits to seek
15 exemptions for things that, in their view, don't make
16 sense to continue to be required to do.

17 We had a different view, disagreement
18 with Holtec about some of those exemptions, and, as a
19 body, expressed those concerns and, as the state
20 agencies on this body, filed comments to the N.R.C.,
21 opposed to some of those license exemptions. And to
22 date, no action has been taken, but that's an example
23 of how these discussions result in certain actions.

24 Also, through these discussions,
25 similar to the license exemptions, when the plant

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2 goes from an operating nuclear power plant to a
3 decommissioning project, N.R.C. takes steps to reduce
4 their resource allocated to the site. And their
5 full-time resident inspector was pulled. And that's
6 also typical at decommissioning sites all around the
7 country, but it was something that created some
8 concern within the community that there wasn't a
9 regulator onsite on a day-to-day basis. And we felt
10 that's another thing where the State of New York can
11 come in, we can fill that gap.

12 Department of Public Service hired a
13 resident inspector, nuclear expert. He's here in the
14 audience. Cliff is here and -- and works full-time
15 from the plant.

16 Similarly, a great deal of concern
17 within the community regarding the co-located
18 pipelines. So longstanding issue in this community
19 and we recognize that it was important during the
20 decommissioning process that there be strong
21 communication protocols between the owner and
22 operator, Holtec, and the owner and operator of the
23 pipeline.

24 And we -- we worked hard to ensure
25 that there was a memorandum of understanding that

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2 guided their communication, activities, and, most
3 importantly, identified physical protections of the
4 pipeline on the site.

5 Dust is another major issue of concern
6 in the community. You're talking about massive
7 structures that are going to be taken down and
8 demolished. And frankly, there are decommissioning
9 sites around the country where there are videos
10 easily accessible through YouTube, where you can see
11 other sites chose implosion to take down big concrete
12 domes. And the images are -- are seared in -- in --
13 in some of our minds as something that we don't want
14 to see happen here at Indian Point in a more densely
15 populated region like ours.

16 So there are a lot of concerns about
17 dust from demolition. And so we talked about what we
18 can do at the state and local level. N.R.C. rules
19 certainly prohibit the licensee from allowing
20 anything to leave the site, but what could the state
21 and local governments do. Well, we -- through our
22 discussions with the D.O.B., Village identified the
23 fact that they have to issue demolition permits for
24 each of the buildings that come down.

25 Our Department of Environmental

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2 Conservation on the D.O.B. also identified
3 regulations that they have in place that are
4 typically used after the fact if a project is causing
5 a public nuisance in an area with dust for them to be
6 able to enforce and get things under control.

7 But we said, why can't we marry those
8 two and have the regulations be folded right in into
9 the building demolition permits in the first
10 instance, rather than be used after the fact. So
11 there are conditions built into the permit requiring
12 dust mitigation and it's an enforceable thing that
13 the state and local governments can now do. We have
14 our state resident inspector on site, we see any kind
15 of visible dust issues, we can now call in the
16 buildings department D.E.C. as necessary, and
17 actually get issues under control.

18 Monitoring. So in addition to having
19 the right regulatory, enforceable conditions on dust
20 control and mitigation, we also have the additional
21 protection of monitoring. We have, already in
22 existence, a radiological monitoring system. It's
23 been in place since the plant was in operation for
24 many years. That's still in place and working and
25 functional, a ring of monitors all around throughout

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2 the community.

3 But as we progress with
4 decommissioning and the spent fuel pool -- the spent
5 fuel is now moving into dry cask storage, the risks
6 will become more about the particulate matter in the
7 dust that the community was concerned about leaving
8 the site.

9 And so what is the right monitoring to
10 use? What are the instruments that we need to have
11 in the community to detect any concerns associated
12 with the activities that we expect will be coming
13 down the line? So we've been working at the
14 Department of Public Service to get a consultant
15 contractor on board to develop that community air
16 monitoring plan that many of the agencies, Department
17 of Health, D.E.C., the school district have been
18 parties to advising how we conduct that R.F.P. to
19 bring the consultant on board.

20 We're making progress. We still
21 expect to have that plan operational end of year,
22 early 2024, before the heavy demolition work
23 commences. And as I just announced earlier on the
24 earlier slide, the school is also going to be a big
25 partner in this work, and they are going to be able

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2 to test the health conditions at the school today.

3 What are the environmental conditions
4 now before the heavy demolition commences? That's
5 been something we've heard from the community that is
6 important to do and we agree and the state provided
7 the \$500,000 to the school to do that.

8 Next slide. So tonight, we're --
9 we're really going to zero in on an issue that has
10 generated a lot of -- a lot of interest. In fact,
11 this water discharge plan is definitely generating
12 the -- the most public interest to date of all of the
13 issues that I just ticked through. As you can see,
14 packed house, a lot of interest.

15 And what I am hoping to facilitate
16 tonight and what I am urging all of us to try to live
17 up to is that we review this issue through our core
18 public interest principles of decommissioning. Does
19 it help ensure safety? Is it going to help us get a
20 prompt decommissioning? And is it going to help us
21 get a thorough cleanup at the end of the day?

22 So we've been talking about this at
23 our -- at our meetings since at least last summer,
24 probably earlier than that. Back in July, when we
25 started talking about the possibility, Riverkeeper --

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2 Riverkeeper's representative, Richard Webster, had a
3 really good suggestion. He said, you know, to put
4 this into context, we really need to consider this,
5 what it means compared to drinking water standards.

6 And we're going to talk about that
7 more later this evening. And I thought that was a
8 very helpful suggestion because it's, I think, a
9 little harder for people to appreciate millirem dose
10 counts and whole-body doses. But drinking water
11 standards may be more relatable for folks to
12 understand. And that was an important point.

13 David Lochbaum, at our February
14 meeting, our independent technical expert, presented
15 a number of alternatives analysis. This is another
16 idea, actually, of Riverkeeper's from the July
17 meeting. Could we establish and -- and bring an
18 expert in to talk about what are the alternatives to
19 water discharge?

20 And -- and Dave Lochbaum walked
21 through a number of -- a number of -- of water
22 disposal options for decommissioning. He looked at
23 other sites, what has been done elsewhere. He walked
24 through pros and cons. His slides are available on
25 our website. I -- I recommend folks to look at

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2 those. They were helpful to put things into context.

3 And from his point of view, it's not
4 about which option meets a standard. Everything
5 would meet a standard. It was what is the relative
6 risk profile of each of the options. And from his
7 point of view, based on the facts and experience
8 around the country with dealing with this kind of
9 waste, his recommendation was the plan to discharge
10 in the river is actually the least risk to public
11 health and the environment.

12 We also heard, at that same meeting,
13 from guest presenters. We heard from a local
14 attorney, Michelle Lee, and also a physician from
15 Physicians for Social Responsibility, who both talked
16 about the problem with the way standards have been
17 set over time.

18 And in their view, pointing out there
19 is no safe level of radiation exposure, and concern
20 that the standards -- concern -- concern that the
21 standards themselves are -- are outdated. And so
22 that was also an important perspective for us to
23 hear.

24 We then had a public forum at the
25 request of the P.T.A. With the school district's

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2 help, we organized a public forum where there was a
3 good information exchange, a lot of questions asked
4 and answered. We had our Department of Health
5 present. We also had Dave Lochbaum.

6 And Dave actually presented a -- an
7 additional PowerPoint, also available on our website,
8 created a video actually, 10-minute-long video, I
9 encourage everyone -- everyone to check it out, where
10 he went through historical data. There is a treasure
11 trove of data on the discharges that have been going
12 on at the plant over the last fifty years.

13 So there's a lot to look at, a lot to
14 look at in the data that's been reported to the
15 D.E.C., but also the data that's been measured in the
16 river itself over that time period. And -- and Dave
17 helpfully put a lot of that data together, summarized
18 it, and also tried to put into context what
19 concentrations we are talking about here.

20 What are we talking about with the
21 levels of tritium in the water, what kind of
22 radiation exposure would that result in? And he
23 concluded that the level of radiological exposure one
24 could get from the historical discharges is actually
25 less than the radiological exposure that one gets

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2 from eating a banana. And that was a really
3 compelling way to frame, I thought, the ...

4 Well, I -- I-- I appreciate --
5 everybody has a lot of passions, but I appreciate --
6 I -- I appreciate everyone in -- in the audience.
7 And -- and I know how engaged everyone is and how
8 passionate folks are. I'm just laying out the facts,
9 right, and this is not a popularity contest. I know
10 I'm not going to make a ton of friends on -- on how I
11 present this information.

12 I -- but I think it's important that
13 we get facts on the table and we have a mutual and
14 respectful communication about the data.

15 Then, you know, back in the February
16 meeting, Rich Burroni, presenting for Holtec, did
17 give a presentation about the water discharges,
18 highlighted the schedule that was planned at the time
19 was an August-September release.

20 Richard Webster did a very good job, I
21 think, of highlighting -- well, gee, you're permitted
22 now and so how do we know you're not going to start
23 discharging sooner than August or September. And --
24 and I really appreciated Richard chiming in on that.
25 And he -- and he also pointed out, look if you -- if

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2 you do go sooner, could you give us 30 days' notice.

3 Rich Burroni agreed he would give 30
4 days' notice, and he did in April. So early April,
5 we get a notice that there would be a discharge in
6 May, 45,000 gallons, lower the water level of the
7 pool. That created a lot of concerns.

8 Created a lot of concerns in the
9 community. People felt that they had an idea of the
10 schedule, August-September, created a lot of concerns
11 with elected officials who felt that they were in the
12 middle of conversations with Holtec. And that --
13 that was -- that was frankly, my opinion, a bad idea
14 by Holtec to move forward with that, given all the
15 questions that were still outstanding.

16 Senators Gillibrand and Schumer had
17 written a letter to N.R.C. at that point, looking for
18 a number -- looking for answers to a number of
19 questions that they had about the water discharges.
20 N.R.C. has since responded to that letter. Thank
21 you.

22 And thank you to the senators' offices
23 for -- for also getting involved with helpfully, you
24 know, helping to frame the issues.

25 But there was a lot of outstanding

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2 questions that were out there. And -- and, you know,
3 I think to Holtec's credit, they listened to the
4 concerns raised by many of us at this table about the
5 fact that they went forward with this before, you
6 know, there was time for adequate discussion.

7 And so later in April, again to
8 Holtec's credit, they -- they paused the May
9 discharge. And that's going to give us time now to
10 have this discussion tonight and probably several
11 more.

12 And -- and so as we planned for this
13 meeting, you know, knowing that there'd be strong
14 interest, as I mentioned, we had a public statement
15 hearing on April 25th. We had about 75 speakers,
16 vast majority very concerned about the discharge,
17 vast majority. And I think that we all benefit by
18 having additional discussion and getting some good
19 information on the table.

20 So in the spirit of how the
21 Decommissioning Oversight Board has been working,
22 listening, identifying gaps, there's some clear gaps
23 on this issue. One, there needs to be more
24 information exchanged. And tonight, we're going to
25 start doing more of that. Two, there needs to be

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2 independent sampling before any discharges commence.
3 Three, N.R.C. needs to engage with all
4 of us. N.R.C. has primary jurisdiction over
5 radiological water discharges. We are so grateful
6 for your participation today. We will be introducing
7 you when it's time for your presentations.

8 And Holtec needs to engage with the
9 host communities. This is a massive project, massive
10 undertaking. The relationships that Holtec has with
11 the leaders in the host communities are really
12 important to -- to maintain and to improve. And so
13 I'm urging Holtec to reengage with the host
14 communities.

15 So let's get to it, next slide.
16 Tonight, we are so pleased to have the Nuclear
17 Regulatory Commission with us. We Are also joined
18 virtually by the United States Environmental
19 Protection Agency. And we will also be hearing
20 presentations from Department of Environmental
21 Conservation, Department of Health, and the Attorney
22 General's office.

23 All of this is meant to help answer
24 the questions that have been presented through our
25 earlier discussions. What's in the water? What's

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2 the historical data mean? Who has jurisdiction over
3 what? Let's get to those answers.

4 Then we're going to turn it over to
5 Holtec for their typical operational update. It's
6 going to be heavy on the water discharge, but we're
7 looking forward to hearing about other activities
8 onsite, what the latest schedule looks like, and an
9 overview of any N.R.C. citations since the last
10 meeting.

11 Then we're going to have 30 minutes
12 for public statement hearing. We're going to try to
13 get to as many speakers as possible. But again, the
14 whole purpose of the public statement hearing on
15 Tuesday was in recognition that we would not have
16 time to get to many speakers tonight.

17 So with that, I'm going to turn it
18 over to John Sipos, who is counsel to the
19 Decommissioning Oversight Board and deputy counsel at
20 the Department of Public Service.

21 John?

22 MR. SIPOS: Thank you, Tom.

23 And good evening. Very much
24 appreciate everyone coming out in -- and the deep
25 interest in this -- in decommissioning and in this

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2 aspect of the decommissioning.

3 Before I get into more detail, I just
4 want to reiterate a point that I made at the February
5 meeting, that the overall risk to the communities in
6 the 50-mile emergency planning zone around Indian
7 Point progresses and continues to decrease. That is
8 a benefit of the closure of the plant. And with the
9 removal of the spent fuel in the unit three spent
10 fuel pool, which is, you know, scheduled to take
11 place this year, that risk will -- will further
12 decline.

13 So I know folks are focused on the
14 release of water to -- to the Hudson River. I would
15 urge us all to keep in mind the larger issue, which
16 is the reduction of risk to -- to the entire
17 emergency planning zone.

18 One other just aspect, by way of
19 background, I know we have some new people here. For
20 10 years I was the state's lead litigator in the
21 license renewal proceeding with our federal
22 colleagues at the Nuclear Regulatory Commission.
23 I've been on both sides of atomic energy issues
24 throughout my career, negotiated the Indian Point
25 closure agreement, and -- and pursued a lot of

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2 initiatives during that time, you know, just a whole
3 host of different issues, design basis threat, waste
4 confidence, and enforcing fire safety regulations.

5 And I say that just to provide
6 context. As Tom said, you know, maybe we're not
7 making friends here tonight, but we certainly see
8 both sides of the issues. And I would like to just
9 address a few questions, a few macro questions that
10 we have seen.

11 First of all -- and the -- the issue
12 here tonight is -- the precise issue is the
13 controlled release of treated and diluted tritiated
14 water from a federally licensed nuclear energy
15 facility. That's the issue.

16 And there are questions about, well,
17 what is the controlling law? I'm sure we will hear
18 from the Nuclear Regulatory Commission and the
19 Environmental Protection Agency. But in short, the
20 controlling law is the Federal Atomic Energy Act.
21 And that provides the oversight auspices for such
22 releases and those releases take place under the
23 auspices of the Nuclear Regulatory Commission.

24 The D.O.B. has seen questions about
25 other federal statutes, such as the Federal Water

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2 Pollution Control Act. There was a -- an opinion
3 essay in the Times Union, last week, by Food and
4 Water Watch which pointed towards the Federal Water
5 Pollution Control Act. That -- that statute does not
6 apply here.

7 And it is not just my opinion; it's
8 not my feeling. It is the result of a 1976 United
9 States Supreme Court ruling in the case of Train
10 versus Colorado Public Research Interest Group. It
11 was a unanimous decision, eight to nothing, authored
12 by Justice Thurgood Marshall, one of the giants of
13 the American Legal Community throughout our history.

14 And that ruling held that in a
15 situation such as we have here, it is the Atomic
16 Energy Act that controls, not the Federal Water
17 Pollution Control Act.

18 I just want to briefly review the
19 options that -- that are on the table here. The
20 first one, which Dave Lochbaum spoke about, which
21 Dave Lochbaum reviewed most of these, is the control
22 release of limited batches of treated water to the
23 Hudson River, consistent with the site's practice
24 over the past several decades, utilizing existing
25 systems that were built as part of the facility, as

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2 part of the plant, and were designed to perform this
3 intended function. That is what has been used for
4 the last 50 or 60 years.

5 Another option is moving the water
6 into trucks and then driving those trucks and that
7 water out of state to an evaporation or
8 solidification facility at another location such as
9 Idaho.

10 A third option is to construct,
11 install, and seek permits for the placement of
12 heaters and evaporation beds, so that there could be
13 a controlled evaporation of the water at Indian
14 Point. That would lead to evaporation, would lead to
15 the airborne emission into the air and to the
16 surrounding community. That would likely require a
17 license amendment from the Nuclear Regulatory
18 Commission.

19 A fourth option is to construct
20 holding tanks, possibly near the interstate gas
21 transmission pipelines, moving the water into trucks,
22 driving the water to the holding tanks, and then
23 transferring the water into the holding tanks to
24 store for 12, 24, 48 years until -- out to 48 years
25 or even longer.

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2 That option would likely also entail
3 the airborne evaporation of tritium to the
4 surrounding communities and four counties and would
5 surely require a license amendment from the Nuclear
6 Regulatory Commission.

7 A fifth option that has received some
8 attention has been to load the water onto barges and
9 to barge the water down the Hudson River, past New
10 York City, through New York Harbor, out into the
11 Atlantic Ocean, and draining it there into the ocean.

12 That last option is not legally
13 realistic. There are both international law and
14 domestic law obstacles. And there -- it -- it is --
15 it is very unlikely, it's highly unlikely that any
16 of the conditions for that would -- would come to
17 pass.

18 Another question that's come up is,
19 well, is this a -- this is a new practice. And I
20 think, as I've indicated just in our previous
21 comments, this is a practice that has been going on
22 since the facilities received their operating
23 licenses from the Nuclear Regulatory Commission and
24 the -- from the Nuclear Regulatory Commission and the
25 -- and -- and the Atomic Energy Commission.

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2 And this has been public. These
3 releases have been public. They are in the water
4 quality certification from the -- the closure
5 agreement from 2017. If anyone wishes further
6 details, they are in Exhibit I to that closure
7 agreement. And that is available on the Riverkeeper
8 website.

9 So I'd just like to -- we've had this
10 chart up here for a little bit. And I -- it -- it
11 is a simplified version of the information that Dave
12 Lochbaum has presented in the past. D.P.S. staff
13 has helped prepare this chart and it is -- really
14 addresses the suggestion that Richard Webster and
15 Riverkeeper made at the July 22, 2022 meeting.

16 It -- and at that meeting, Richard,
17 who I've worked with on -- on both sides of cases,
18 again, he suggested as Tom just mentioned, looking
19 at the maximum contaminant level, the M.C.L. for
20 drinking water standards.

21 And as -- as -- as was said at that
22 hearing, last year, in reference to the 20,000
23 picocurie liter standard, quote, if you're to -- if
24 you're discharging, you know, much below that -- and
25 that meaning the 20,000 picocuries per liter standard

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2 -- then I think it will really show that there isn't
3 a major issue, certainly drinking water, close quote.
4 That's at pages 154 and 155.

5 And so the top -- if you look at this
6 chart, the red line is the E.P.A. M.C.L. standard,
7 20,000 picocuries per liter for drinking water. And
8 we can get -- in our discussion, we can get into the
9 assumptions that are behind that.

10 And the average for these 15 years,
11 the -- at the bottom, we have 2005 to 2020, 15 years,
12 the average for the -- over those 15 years is 519.
13 So the average is 519 picocuries per liter and the
14 E.P.A. maximum contaminant level is 20,000.

15 The releases -- and -- and this chart
16 is based on submissions by Entergy to the Nuclear
17 Regulatory Commission, federally required submissions
18 to the N.R.C., and it represents how far below the
19 M.C.L. standard the -- the releases have been.

20 And so the D.O.B. is attentive to
21 community suggestions. This is what Riverkeeper and
22 -- and Richard Webster suggested last July. And --
23 and this chart graphically represents how low those
24 releases have been.

25 And I think, right now, I'll just

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2 conclude there and turn it back to Tom.

3 CHAIR CONGDON: Thank you, John.

4 Thank you.

5 I'd like to now turn over to the
6 Nuclear Regulatory Commission. We're joined by
7 Katherine Warner of the N.R.C. And I'd ask that you
8 all introduce yourselves with your titles, please.

9 Thank you.

10 MS. MARSHALL: I'm Jane Marshall, U.S.
11 Nuclear Regulatory Commission, I'm the director,
12 division of decommissioning, uranium recovery, and
13 low level waste programs.

14 MS. RALPH: And I'm Melissa Ralph.
15 I'm the acting deputy division director for Division
16 of Radiological Safety and Security in the N.R.C.'s
17 Region One office.

18 MS. WARNER: Good evening, everyone.
19 My name is Katherine Warner. I'm a Senior Health
20 Physicist, N.R.C. Region One, and I am the lead
21 inspector for Indian Point.

22 CHAIR CONGDON: Thank you. Over to
23 you, Katherine.

24 MS. WARNER: Let me know if you're
25 ready? Hold on. We'll get it.

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2 CHAIR CONGDON: I tend to move it
3 down, like it might help.

4 MS. WARNER: Better?

5 CHAIR CONGDON: There you go, yeah.
6 There you go. Thank you.

7 MS. WARNER: You all can you hear me
8 okay?

9 CHAIR CONGDON: Yes.

10 MS. WARNER: Okay. Sorry about that.

11 So first I would like to thank the
12 Decommissioning Oversight Board and Senators Schumer
13 and Gillibrand for the invitation for this -- to this
14 meeting, and for the opportunity to discuss our
15 oversight program as Indian Point undergoes
16 decommissioning.

17 We value these interactions and want
18 to emphasize that we share a common goal to ensure
19 that Indian Point is decommissioned safely. During
20 this presentation, I will give a high-level overview
21 of our regulatory program and a review of effluent
22 releases from Indian Point with an awareness that
23 there continues to be interest of how water, low
24 levels of radioactivity that remain from the plant's
25 operational life, including the spent fuel pools,

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2 will be disposed of.

3 Please note that we'll try to address
4 as many topics as possible, given the 20-minute time
5 restraint requested for our presentation. I have 12
6 slides to go through and I ask that the Board hold
7 their questions until the end of the presentation.

8 Next slide, please. The N.R.C. is the
9 principal regulator for radioactive components for
10 liquid releases. Non-radioactive components are
11 controlled, in part, through the state pollutant
12 discharge elimination system permit. If I could
13 leave you with three important messages, it would be
14 these.

15 First, there are no releases directly
16 from the spent fuel pool. All water is treated by
17 the radioactive waste system, re-circulated,
18 analyzed, monitored by a calibrated radiation monitor
19 prior to release. Spent fuel pool water is not
20 significantly different than other waters that Indian
21 Point was designed and licensed to process through
22 their radioactive waste processing system.

23 Second, any effluent releases from
24 Indian Point or other U.S. nuclear power plants must
25 comply with federal limits, which are set well below

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2 any expected health effects. Radioactive effluents
3 and their limits are not unique to nuclear power
4 plants. Hospitals and cancer treatment facilities
5 also produce liquid effluents.

6 Third, any and all releases must be
7 quantified in order with -- in accordance with N.R.C.
8 licensed methodology and documented in reports filed
9 with the N.R.C. We, in turn, make them publicly
10 available on our website.

11 It's important to point out that
12 Indian Point has performed liquid radioactive
13 releases since the 1960s. This is throughout the
14 course of the plant's life and similar to other
15 reactor sites, including the release of water from
16 the Unit One spent fuel pool.

17 Next slide please. So we're going to
18 be discussing topics like radiation dose and units
19 like a millirem. So I'm going to take just a little
20 bit of time to go over some of these concepts so that
21 everybody can follow along.

22 To help provide some context on
23 radiation exposures, in 2006 the National Council of
24 Radiation Protection and Measurements, N.C.R.P.,
25 evaluated the radiation doses to the U.S. population

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2 from all sources of ionizing radiation and published
3 their findings in N.C.R.P. Report 160.

4 The N.C.R.P. estimated that the
5 average yearly radiation dose to the -- an individual
6 in the United States is 620 millirem. Half of that,
7 or about 310 millirem, is from natural sources with a
8 majority being from radon.

9 The other half is considered
10 industrial. The majority of that is medical
11 exposure. Of course, that can vary quite a bit, but
12 to give one data point, the average radiation dose
13 from a single chest X-ray is about ten millirem. And
14 I'll note that the effluent program is designed, at a
15 nuclear power plant, to be below a three-millirem-a-
16 year goal at the release point.

17 Next slide please. So we're going to
18 spend the next couple of slides talking high level
19 about N.R.C. regulations, and then two slides
20 focusing on some specific parts of the regulation
21 about effluents. Congress authorized the N.R.C.'s
22 role to establish regulations to govern civilian uses
23 of radioactive materials in the Atomic Energy Act of
24 1954 as amended.

25 The N.R.C. may enter into an agreement

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2 with a state, such as it did with New York, to allow
3 a state to regulate some materials licensees, but the
4 N.R.C. retains authority over things like nuclear
5 power plants. Of course, we interface with the state
6 and the state inspector.

7 These regulations apply to all N.R.C.
8 licensees, including thousands of industrial,
9 medical, and R and D facilities, and research and
10 power nuclear reactors. The dose limits that we're
11 going to discuss were designed with several layers of
12 protection. The most recent overhaul to the N.R.C.'s
13 radiation dose limits was the 1991 revision to 10
14 C.F.R. Part 20. C.F.R. refers to the Code of Federal
15 Regulations.

16 These regulations deal with the
17 standards for protection against radiation. Now,
18 these radiation limits are dose based. They're based
19 on international recommendations which are often
20 implemented by governments worldwide. The
21 International Commission of Radiological Protection
22 is where we drew this from, the I.C.R.P. They
23 recommended 100-millirem-a-year limit after
24 concluding that a lifetime of exposure at this level
25 would result in a very small health risk, roughly

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2 equivalent to background radiation from natural
3 sources, excluding the radon.

4 Also note that the N.C.R.P. we talked
5 about on the last slide also recommended a dose limit
6 of 100 millirem per year. Now, that was in 1991.
7 What have we done since then? We maintain awareness
8 of international and national recommendations and
9 reports to inform whether any updates to our
10 regulations are necessary.

11 For example, in the 2008, 2015, 2016
12 timeframe, the N.R.C. reviewed whether an update to
13 our regulations was necessary to align with more
14 recent recommendations from the I.C.R.P. We
15 concluded that no updates were necessary because the
16 N.R.C. regulatory framework continues to provide
17 adequate protection of the public, environment, and
18 the workers.

19 We note that these most recent
20 recommendations did not include a change to the 100-
21 millirem limit. As you can see on the slide, the
22 regulations we are discussing does not relieve the
23 licensee, in this case, Indian Point, from complying
24 with all other applicable federal, state, and local
25 regulations governing other toxic or hazardous

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2 properties of materials that may be disposed of in
3 liquid releases.

4 Next slide, please. So this slide
5 gets into some of the specific parts of Part 20. We
6 have established three layers of protection to
7 protect the public. Before I get into the public,
8 I'm going to note, just for a reference point, the
9 occupational worker limits are 5,000 millirem a year.

10 So the first layer of protection for
11 the public is that 100 millirem a year I mentioned a
12 couple of times. And then if you take a look, lower
13 on the slide, you're going to see a blue arrow that
14 the N.R.C. requires that licensees, including Indian
15 Point, comply with applicable E.P.A. regulations.

16 Before we go on to the next slide,
17 I'll note that the 100-millirem limit is the limit
18 from all dose pathways. Whether or not you're
19 ingesting, inhaling, direct radiation, it's from all
20 those pathways have to add up to be less than 100
21 millirem.

22 Next slide please. Now, the E.P.A. is
23 also presenting tonight, so I'm not going to try to
24 steal their thunder. Just point out a couple of
25 things that are most applicable to N.R.C.

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2 regulations. We require nuclear power plants to meet
3 E.P.A. limits. And E.P.A. sets a public dose limit
4 of 25 millirem for planned discharges.

5 The N.R.C. regulations incorporated
6 these E.P.A. standards in 1981. The N.R.C.'s "as low
7 as reasonably achievable" objectives and what's
8 incorporated into the site licensing basis are a
9 fraction of these E.P.A. standards. And that is the
10 third layer of protection.

11 Next slide, please. Now, let's switch
12 gears a little bit. We're going to talk specifically
13 about releases, how they work, and then two slides of
14 some actual data.

15 So controlled releases of liquid and
16 gaseous radioactive effluents from nuclear power
17 plants occur throughout the life of these facilities
18 and, again, must meet both N.R.C. and E.P.A.
19 standards.

20 As I stated before, liquid releases
21 from nuclear plants are filtered, processed, and
22 placed in a storage tank where its contents undergo
23 analysis for any radioisotopes present, including
24 tritium. If, based on the analysis, it's determined
25 that a batch or a gradual release of water from the

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2 tank can be done, then the company may proceed.

3 The liquids are monitored by a
4 calibrated radiation monitor during release, and
5 concentration is reduced during this release, and
6 then even further reduced in the Hudson River.

7 So how does the site calculate whether
8 or not the -- the concentrations are low enough for
9 release? It's based on evaluations using the site's
10 Offsite Dose Calculation Manual, O.D.C.M. The
11 O.D.C.M. specifies site limitations and methodologies
12 that a licensee will use to maintain compliance below
13 the limit. Again, water is not directly released
14 from the spent fuel pool.

15 The water from decommissioning is no
16 different than water used during operations, and is
17 the same water that has been in contact to keep the
18 spent fuel pool cooled.

19 Now, the spent fuel is made up of
20 pellets and these pellets are enclosed in steel rods.
21 The water is in contact with the rods, not the
22 pellets themselves.

23 Also to touch on tritium a bit,
24 tritium is a radioactive form of hydrogen, which for
25 Indian Point releases is bound up in water. Tritium

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2 is released at low concentrations, reduced at the
3 release point, and further reduced in the Hudson
4 River. And tritium does not typically bioaccumulate
5 in the body.

6 MS. WARNER: Next slide. So this
7 slide -- yes, thank you for blowing that up.

8 So we're going to talk a little bit
9 about the data from -- that we gathered from the
10 effluent reports submitted to the N.R.C. and
11 available on our public website. As you can see,
12 this runs from about 2005 to 2021, just to give a
13 snapshot.

14 Indian Point has released liquid
15 radioactive effluent since the first unit went into
16 operation in the 1960s, similar to other New York
17 plants.

18 So to point out some of the specifics
19 of this graph, if you take a look at the purple bars,
20 this relates to the volume of batch liquid releases.
21 As you can see, we're talking between about 2 million
22 and almost 5 million gallons a year just based on
23 what's going on at the site.

24 And then, for a number of batches,
25 those are the green dots, you take a look on the

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2 right, that's number of batch releases. And it
3 ranges between just under 100 to about 175 a year,
4 just to give a little bit of an idea.

5 Next slide, please. Now, this slide
6 is a comparison of total whole-body dose from liquid
7 releases to limits at Indian Point, again, looking at
8 the 2005 to 2021 timeframe. That top red dotted line
9 shows that 100-millirem limit. Again, that's the 100
10 millirem is those from all pathways.

11 The lower dotted red line indicates
12 the E.P.A. limits for whole-body dose of 25 millirem.
13 The yellow dotted line near the bottom, just for a
14 point of reference, is the typical whole-body dose
15 that one would get from a flight between coasts. And
16 that's about 4 millirem.

17 Near the bottom, you can see how
18 Indian Point releases relate, and next slide please
19 because I blow up some of those numbers. When you
20 take a look at some of these numbers, this is in
21 millirem, and it is very clear they fell well below
22 the thresholds, less than 1% of the limits. For
23 example, in 2021, it's about 0.011966 millirems
24 calculated. Again, Indian Point is required to
25 calculate these doses and submit annual reports to

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2 the N.R.C., which are available on our website.

3 Next slide, please. Indian Point has
4 a radiological environmental monitoring program
5 required by our regulations that supplements the
6 effluent monitoring program by verifying that
7 measurable concentrations of radioactive materials
8 and levels of radiation in the environment are in
9 agreement with values predicted by the radiological
10 radioactive effluent monitoring program.

11 The site's REMP program includes data
12 gathering from various media, along with measurements
13 of direct radiation. The Indian Point 2021 REMP
14 report notes that environmental sampling collected in
15 the vicinity of the plant and at distant locations
16 included this media like air particulate filters,
17 soil, drinking water, vegetation, Hudson River water,
18 Hudson River sediment, fish, invertebrates, and
19 Hudson River aquatic vegetation.

20 During 2021, Indian Point reported
21 over 1,100 samples taken from the various media and
22 over 164 exposure measurements for direct radiation.
23 In evaluation of direct radiation measurements,
24 environmental sample analysis, and dose calculations
25 demonstrated that all applicable federal criteria

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2 were met.

3 Next slide, please. A little bit on
4 N.R.C. inspections. This is what I do day to day.
5 The N.R.C. has a robust inspection program where we
6 conduct observations of risk-significant activities
7 and conduct programmatic reviews.

8 To focus in on our inspections for
9 effluents, we first need to discuss the framework
10 that the N.R.C. set up for nuclear power plants.
11 First, we approved that Offsite Dose Calculation
12 Manual, O.D.C.M., and the methodology. As we have
13 discussed, that O.D.C.M. implements release criteria
14 even further below the 100 and 25 millirem limits
15 we've discussed.

16 We inspect the procedures implementing
17 the requirements of the O.D.C.M., we review a
18 sampling of activities and documentation. And we
19 conduct walk-downs, which are visual assessments of
20 the waste program and systems using risk-informed
21 performance-based approach.

22 Further, we verify the results of the
23 effluent program through our review of the
24 environmental results and implementation of that
25 program, as well. This is what gives the N.R.C.

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2 confidence that what we expect from our review of
3 effluent releases has indeed occurred.

4 Also, note that the N.R.C. will
5 continue to inspect until decommissioning is
6 complete. When the only thing that remains is the
7 spent fuel storage facilities, we will still inspect.

8 Next slide, please. Quick summary
9 slide here just to go over some of those numbers that
10 we've talked about today.

11 An occupational worker limit is that
12 5,000 millirem a year. Average public dose from that
13 N.C.R.P. report, 620. Hundred millirem annual N.R.C.
14 public limit from all pathways. 25 millirem a year
15 E.P.A. release limit, which is incorporated into our
16 regulations from discharges. 3 millirem a year,
17 which is in the O.D.C.M., which is part of the site's
18 licensing basis. And then the 0.011966 millirem,
19 which was the calculated dose to the public from
20 liquid releases in 2021.

21 That's all I have for you today.
22 Thank you.

23 CHAIR CONGDON: Thank you, Katherine.

24 I'd now like to -- well, before I turn
25 to E.P.A., does anyone on the D.O.B. have any

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2 questions for Katherine?

3 Yes, Senator?

4 SENATOR HARCKHAM: Thank you very
5 much. Thank you very much for coming. Good to see
6 you here. Thank you for your public service,
7 although --.

8 MR. KACZMAREK: Senator.

9 SENATOR HARCKHAM: Yeah.

10 MR. KACZMAREK: There's a switch on
11 the top.

12 SENATOR HARCKHAM: There we go. All
13 right. Sorry about that. Thank you.

14 MS. WARNER: You still had better luck
15 with your microphone than mine.

16 SENATOR HARCKHAM: Thank you. Well,
17 thank you for your public service and I'm glad you're
18 here. But I -- I just want to -- forgive me for
19 being grumpy. You shouldn't have to be invited by
20 the two federal senators from New York to be here. I
21 think the feeling of the community is that-- that
22 people want you here.

23 And you know, the first thing the
24 N.R.C. did when the decommissioning process started
25 was you pulled your resident inspector. And -- and

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2 you know, I'm just speaking on behalf of the
3 community. I'm not trying to single you out,
4 personally.

5 But the reason this Decommissioning
6 Oversight Board was started, and people asked me to
7 draft the -- the legislation, and then, negotiated
8 with the former governor to create this was that the
9 community didn't trust the N.R.C. to protect their
10 interests.

11 So I -- I just want -- I'm not saying
12 that like -- like to be an idiot, but I'm just -- I
13 just want you to know like how the community feels.
14 So when they hear numbers coming out like this, you
15 know, they sound cold and analytical. This is a
16 community that didn't know this dumping was going on
17 for decades. And so you know, this is news to the
18 community.

19 And, you know, I -- I come from the
20 point of view where no amount of pollution should be
21 acceptable, you know. We've ... So I -- I guess,
22 I'm -- and I'm not trying to make a speech. I'm not.
23 But the question I'm asking you is -- is and -- and
24 you know, for instance, dumping may be the best of a
25 lot of bad alternatives. That -- we may get there.

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2 But as -- as Tom mentioned, and thank you for
3 mentioning this, we need to have conversations with
4 lots of folks with lots of stakeholders. And you --
5 you cite 1991 standards from -- and then, 1981 E.P.A.
6 standards, four decades old.

7 There's a lot of new research on the
8 cumulative impacts of pollutants. We are exposed to
9 hundreds of toxins a day. So there may be an
10 acceptable level of one substance. So my question is
11 when was the last time, as an agency, you looked at
12 cumulative impacts? When was the last time you
13 looked at the regulations that are 30 and 40 years
14 old? And how do we know that that -- that those
15 standards are still safe today based on what we know
16 about cumulative impacts?

17 Thank you.

18 MS. RALPH: Thank you so much for
19 that. The N.R.C. has technical staff with expertise
20 in this area, who are -- who serve as part of
21 international bodies looking at the effects of
22 radiation and standards committees, et cetera. So
23 we're -- we're continually looking at this issue.

24 And were we to contemplate any change,
25 that would be considered as part of our rulemaking

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2 process which is open for -- for public input and
3 certainly any member of the public can petition the
4 agency to -- to make changes to our regulations.

5 And in terms of -- some of the
6 specifics in terms of some recent updates to -- to
7 standards, I'll let Katherine weigh in a little bit
8 of that if you have anything to add, but I think, you
9 know, at a high level, we're looking at this all the
10 time, with our experts sitting in -- in these members
11 of these international groups.

12 SENATOR HARCKHAM: But I -- I guess,
13 if -- if I just focus on the specific -- focus on the
14 specific question, 30- and 40-year regulations are
15 not worth updating? You haven't -- you haven't
16 learned anything in 30 and 40 years in terms of data
17 that would warrant updating your -- your regulations?

18 MS. RALPH: So I believe Katherine
19 mentioned in her presentation about a review that was
20 conducted in the 2008 to 2016 timeframe, where we did
21 contemplate change to our regulation, and concluded
22 that the current standards are, indeed, protective of
23 public health and safety.

24 MS. WARNER: I'd also add that when we
25 take a look at whether or not we need to update our

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2 regulations, we look at if there's going to be a
3 measurable impact to safety. And so far, we have not
4 concluded that that's the case, and that our
5 standards remain protective of the public,
6 occupational workers, and the environment.

7 DR. BECKER: I'd like to follow up on
8 that.

9 CHAIR CONGDON: Yes, you can answer.
10 So I'm going to -- I'm going to turn to Supervisor
11 Becker, and then, Susan Spear, and then, Richard
12 Webster has a question online. And then, Katherine.
13 Okay.

14 DR. BECKER: I just want to follow up
15 on what the Senator said. And again, not personal,
16 as he said. I know you're scientists and you're
17 dedicated and you're doing in your heart what you
18 think is correct. I'm a scientist, too. I'm a
19 physician. And as much as these agencies, your
20 agency, the E.P.A. try to do their best, science
21 changes over time.

22 So I'm a physician, I'm guided by the
23 Food and Drug Administration. In the last 10 years,
24 drugs that I've taken have been withdrawn from the
25 market even though they went through phase one, phase

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2 two, and phase three studies, and were tested in
3 hundreds of thousands of people. Common examples,
4 you may have heard of, Vioxx, a pain pill, like --
5 like aspirin or one of the NSAIDs, removed from the
6 market because it caused strokes.

7 Zantac, been on the market for 20
8 years, withdrawn from the market because of
9 fatalities and cancer risk. Quinine, Celebrex,
10 aspirin, which was used to prevent heart disease.
11 Now, they thought maybe not -- can't give it to kids
12 either because it causes Reye's syndrome, can't give
13 it to people over sixty-five because it causes
14 strokes, not prevent strokes. The science changes.

15 And as far as the E.P.A. and other
16 environmental things, a lot of the communities around
17 the country now are dealing with P.F.A.s, which are
18 polyfleuralkylides. This is the stuff that's in
19 Teflon, Scotchguard, all the fabrics we wear to
20 protect us.

21 Well, when the E.P.A. released it,
22 they didn't know that it was an environmental hazard.
23 Then they came out and started to realize that it
24 was, and they set the limit at 70. And then, when
25 they found that there were cancer risks in the

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2 communities where these P.F.A.s were manufactured,
3 they lowered the level to 40. Now, there's talk
4 about lowering it to four, and that's parts per
5 trillion, not parts per billion.

6 So the science changes, best efforts.
7 And I'm also a little skeptical, and this is just my
8 judgment, that when a company is asked to monitor one
9 industry in the case of the N.R.C., nuclear power
10 plants, in the case of the Food and Drug
11 Administration, pharmaceutical companies, in the case
12 of the F.A.A., Boeing, they release planes that
13 crashed, and then they admitted later on that maybe
14 they were a little too cozy, and they had to have
15 inspectors onsite.

16 So I'm a little skeptical. And I
17 think that the science, although you're trying to be
18 precise, and you'll measure accurately and you'll get
19 very specific numbers, sometimes precision and is not
20 the same as accuracy.

21 And sometimes the things that we do
22 today are found to be different later on. So this --
23 you know, I'm listening to this. And I'm a strong
24 believer in what the senator said. You know, when
25 you say that this is less than a banana or this is

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2 less than you get here, what you said is true. It's
3 all cumulative.

4 We can't escape getting X-rays and
5 other medical tests because the risks and benefits
6 that the physician makes are in favor of having tests
7 to prevent and treat diseases. And background
8 radiation, we'd all love it to be zero. It's not --
9 it's not okay to say this is no worse than
10 background. This is going to add to the background.

11 And -- or to say that it's worse than
12 being on an airplane flight coast to coast, or 15
13 minutes in the air. This is in addition to it
14 because people are going to take plane rides, and
15 they're going to drink the water. And there are
16 seven communities to the north of us who get their
17 drinking water.

18 In fact, either -- so I think if you
19 ask me what I would like to happen, and what the
20 outcome would be, but not to say not to do this,
21 believe it or not, I'm not necessarily against it. I
22 want to pause. I want to take a year, at least, to
23 come up and see if there are other ideas.

24 We heard about the four ideas, you
25 know, you -- you can't boil it or evaporate it, you

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2 know, but you can't ship it elsewhere because there's
3 no place else to ship it. But I do believe that
4 there are other alternatives, perhaps that we haven't
5 thought of yet. I don't understand why it can't be
6 shipped out to sea and left deep in the ocean, where
7 it's going to end up anyway if the river was really a
8 river. But it's not. It's tidal. It goes back and
9 forth.

10 So I think we need to have a timeout,
11 a period of a year. If, after a year, there's no
12 better solution found, and -- then, maybe we do it.
13 And after a year, maybe there's a way that we can add
14 to the dilution process, so it's even less toxic.
15 Maybe we do a little each year. And the delay not
16 only is helpful in giving us time to ponder and
17 consider and come up with better alternatives, but it
18 allows the nuclear material to decay. There is no
19 harm in -- in waiting. There is no gun to anyone's
20 head. If it costs more money to do it, so be it.
21 Let the government give them more money.

22 There is no rush to do this now. And
23 -- and I think -- I'm going to end now, because I
24 know I'm taking too much time. But I think the
25 optics of this are very important. The public does

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2 not trust this and that is a very important factor.

3 The public needs to have trust that
4 there are safe -- that there is no alternative to
5 this or that this is the best alternative. And I
6 think this was the mistake the nation -- I was like
7 one of the first lineup to get a vaccine. But the
8 public was never convinced of it. And because of
9 that, I think millions of people died and didn't get
10 their vaccinations.

11 I think if we take time and study it,
12 we can come up with a solution. Again, time, that's
13 all I'm asking for. Thank you.

14 CHAIR CONGDON: Susan?

15 MS. SPEAR: Thank you so -- thank you
16 so much for the information. I have -- two quick
17 questions. First one is when you determine the
18 allowable exposure, is that based on an adult man, or
19 is that based on female, children, and how would it
20 be different in terms of the size of an adult man
21 versus a child?

22 MS. RALPH: Katherine, would you like
23 to take this one?

24 MS. WARNER: I got this. So the
25 international standards that are dose limits are

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2 based on -- is based on what's called reference man
3 and reference woman. However, it's stated in there
4 that they believe that these recommendations, which
5 we put into our regulations as limits, would also be
6 protective of other populations.

7 Further, when we talk about the
8 effluent limits, like the limits for releases of
9 liquid and gaseous into the environment, the N.R.C.
10 also reduced those by a factor of two, so by 50%, to
11 also take into account any different effects for age
12 and different populations.

13 MS. SPEAR: Thank you. Second
14 question, do you know why the N.R.C. exposure limit
15 is different than the E.P.A.'s? You're at 100 and
16 the E.P.A. is 25.

17 MS. RALPH: So I'll let Katherine
18 again provide a clarification. There's slightly some
19 nuance here to -- to what the limits are
20 characterizing.

21 MS. WARNER: So I would let E.P.A.
22 speak to their limit, but I would say for our limit,
23 the 100 millirem, that is the limit from all
24 pathways. So that's direct radiation, ingestion,
25 inhalation, all those kinds of things have to add up

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2 to be less than 100.

3 I do believe that this -- the 25
4 millirem is due to liquid discharges. That's what it
5 stated on my slide. I would let them talk to their
6 numbers. Thank you.

7 CHAIR CONGDON: Richard Webster is
8 online, virtually. Richard, do you have a question?

9 MR. WEBSTER: Yes, thank you, Tom.

10 Just a quick question, what are the --
11 what are the basis of these limits and what are we
12 trying to get underneath? Is -- is it a cancer risk
13 that we're trying to get underneath? And similarly
14 for as a cancer risk for -- for -- for whom, so is
15 there a -- is there a male cancer risk, a female
16 cancer risk, reproductive health cancer, or
17 reproductive health risk? What -- can you give us
18 what's underlying these -- these millirem per year
19 exposure numbers?

20 MS. RALPH: So I can take that. At a
21 high level, our regulations are designed to provide
22 reasonable assurance of adequate protection in public
23 health and safety. So that is from all known health
24 effects of radiation to all populations. So we set
25 the limits to protect all members of the public to

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2 provide that reasonable assurance of adequate
3 protection.

4 Do you have anything to add?

5 MS. WARNER: When we took a look at
6 promulgating or creating these regulations and were
7 implementing these I.C.R.P. recommendations, those
8 recommendations did take a look at health -- health
9 risks and cancer effects.

10 And so with the limits in place,
11 there's two kinds of effects that you can have from
12 radiation. One is called non-stochastic, so that is
13 physical effects to the body. And those would have,
14 say, a threshold like cataracts or anything -- if you
15 think of the atomic bomb survivors, that -- those are
16 the kind of non-stochastic effects.

17 Our limits are well below what any of
18 those kinds of effects would be expected. So we're
19 really talking about cancer risk. That's what it's
20 called stochastic. I know I'm using some technical
21 terms and I can explain any more if need be.

22 But when they take a look at these
23 potential cancer risks, they're trying to set them at
24 a lower level. And we took into account what the
25 I.C.R.P. said at the time and we believe that it

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2 still continues to be protective.

3 Also, when we looked at promulgating
4 these regulations, we looked at what would be safe in
5 our industry versus other safe industries from like
6 an OSHA perspective, so we tried to take a look at it
7 from that perspective as well.

8 CHAIR CONGDON: Thank you.

9 MR. WEBSTER: Right, but I still don't
10 really hear an answer. I mean, I hear a quote from
11 the -- from the ... that is the agency's remit, I
12 understand that. But my question is at what level,
13 is it ten to minus six risk, ten to minus four risk,
14 you know, given each -- each exposure, how does that
15 translate to -- to a cancer risk?

16 MS. RALPH: Bruce is on the line. Do
17 you have a --?

18 CHAIR CONGDON: Bruce from N.R.C., you
19 might need to unmute your line.

20 MR. WATSON: Yes, this is Bruce Watson
21 from the N.R.C. -- N.R.C. headquarters. The limits
22 take into account that there is a minimal risk of
23 cancer based on radiation exposures within the
24 limits.

25 So the occupational exposure limit of

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2 5,000 millirem takes into the accumulative account
3 that if a worker would work for a lifetime at that
4 level, and that -- at that -- at that point, his risk
5 would be -- of cancer would be insignificant.

6 But -- and so we're looking at
7 effluent releases and also at releases to the general
8 public, which are well below those. And those would
9 also be in line with a minimal effect of cancer risk,
10 if existed -- if it was to be existent at this point.

11 So we're talking of, you know -- as
12 Mr. Webster mentioned, we're -- we're talking minimal
13 levels along the lines of one in a million, one in
14 ten million, one in a hundred million. So the cancer
15 risk is extremely low, especially when it comes to
16 environmental issues. So thank you.

17 CHAIR CONGDON: Thank you, Bruce. I'd
18 like to try to get to two more questions, and then,
19 we need to move on to the E.P.A. presentation, so
20 Catherine Borgia?

21 MS. BORGIA: Thank you. A lot of my
22 questions have been answered, but I want to make sure
23 that I understand something on your summary chart.
24 So could you explain to me, please, the difference
25 between the 620 average public dose per year and the

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2 100 annual N.R.C. public dose limit?

3 MS. WARNER: I'll -- I'll take that.

4 So the 620 millirem a year is what the National
5 Society determined was what the average person is
6 getting a year just by being alive.

7 MS. BORGIA: Right. So why aren't we
8 more concerned that -- that is so much higher than
9 the dose, the 100 millirem that you're saying is the
10 effect -- is a safe effective dose, because it seems
11 to me that the -- if the -- if the change in society,
12 for lack of a better word, now gives people this
13 higher level of risk from 1981 or 1991, that -- that
14 the additional, it -- it seems like there's a big
15 change then to say another hundred can be safely
16 layered on to what a normal person would get.

17 So I guess I'm curious about when you
18 did this review of the -- the 2008 to 2016 review of
19 what the standards were going to be, did you take
20 into account the fact that people's exposure had gone
21 up so much in the intervening decades between 1981
22 and 1991 and today?

23 So was that cumulative external, the
24 fact that more people are flying or have radiation
25 risks because of medical tests, or all the other ways

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2 that we might have radiation risks? Was that part of
3 what you looked at when you said, okay, the -- the
4 standards are still okay.

5 MS. RALPH: So I think -- we're not
6 saying that the -- that that 600 number went up, that
7 that was at the time, the -- the postulated average.
8 We --we don't have an estimate for an earlier average
9 dose, your annual dose.

10 MS. BORGIA: I don't think that's what
11 I'm asking. I think what I'm saying is if you have
12 this average dose, and let's assume that a -- that's
13 a correct dose for what people are exposed to now,
14 because of the way life is now. My question is did
15 you look at the fact that that might be different
16 today than it was in 1981 and 1991, when you were
17 evaluating the regulations?

18 MS. RALPH: I'll let Bruce take this
19 one.

20 MR. MARSHALL: Yes -- yeah. Bruce, do
21 you mind answering that one for us?

22 MR. WATSON: Sure. You know, the --
23 the 620 millirem is the average of existing here on
24 the planet. So living here on the planet, you're
25 going to be exposed to a variety of things from

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2 natural background. I think Katherine touched on
3 radon. There's other issues, other exposures that
4 we'll all get, whether they're from average medical
5 exposures, from medical procedures to, you know,
6 natural potassium 40 in our food supply, such as
7 bananas.

8 But we continue to look at the 100
9 millirem and as the potential for increasing the risk
10 of that exposure in comparison to the 620 and as --
11 so we continuously look at that. We've evaluated
12 that numerous times. We -- it's an ongoing issue.

13 We also follow the recommendations, as
14 Katherine and company have mentioned, with the
15 International Council on Radiation Protection and the
16 National Council on Radiation Protection.

17 And I'll just point out one other
18 thing. And I think it was slide two or three that
19 Katherine presented. You know, living near -- near a
20 nuclear power plant will increase your dose by about
21 one millirem per year, which is also consistent with
22 the effluents that we're talking about in this -- in
23 this meeting.

24 So the incremental risk of going above
25 that background level is kind of inconsequential to

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2 the average background radiation we all receive every
3 year by, you know, existing on the planet. So I hope
4 that answers your question.

5 MS. BORGIA: It doesn't. It's really
6 a yes or no question, I think. The -- the question
7 is did you take into account, when you chose to say,
8 after this pretty extensive review, if it was 2008 to
9 2016 that's a -- that's a long number of years.

10 Did you take into account the fact
11 that people's baseline radiation exposure might have
12 increased? Was that a factor in the -- whether or
13 not you say the -- your regulations need to be
14 increased? That's -- that's my question.

15 MR. WATSON: I would have to answer
16 the question with yes, we have because the actual
17 incremental risk of, you know, being exposed to
18 additional radiation is taken into consideration by
19 all the scientific bodies. And the scientific bodies
20 have -- have demonstrated to us, through their
21 studies, that the science hasn't changed.

22 So yes, this is an ongoing review and
23 that we take those -- those considerations and their
24 reports seriously. And we -- as Katherine has
25 mentioned our radiation exposure limits are very

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2 protective of the public that -- you know, the
3 environment, and of course, our workers so.

4 CHAIR CONGDON: Thank you, Bruce.

5 If we could get --?

6 MS. BORGIA: Just the one --.

7 CHAIR CONGDON: Go ahead.

8 MS. BORGIA: Just one final question
9 and this might -- you can -- you can ding me if you
10 want, Tom, tell me if you want to add -- ask this
11 some other time.

12 But since you are the monitoring --
13 since you are our monitoring person, could you
14 explain to us or to me the scheduling of decreasing
15 monitoring that the N.R.C. will -- will do as the
16 decommissioning project goes forward, and when the
17 plant is completely decommissioned, what that
18 schedule will be of N.R.C. monitoring of the site.

19 MS. WARNER: Sure So to touch on our
20 decommissioning program, we use what's called a risk-
21 informed performance-based approach. So every year,
22 I do certain programmatic and -- and I should say,
23 it's not just me.

24 We bring in experts and specialists in
25 all different areas like, for example, security and

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2 fire protection, to be able to look at these
3 different things. But we conduct programmatic
4 reviews, and then, also we're taking a look at
5 activities based on risk.

6 So right now, for -- as I'm sure Rich
7 will go over, they're segmenting the internals of
8 Unit Three. Risk significant activity, we're onsite.
9 Right now we're onsite about a couple times a
10 quarter. We are trying to focus in on those risk
11 significant activities.

12 And as the site -- as the site
13 continues to decommission, we -- we are able to
14 adjust how much we're on site, more, less based on
15 those activities while continuing to do our
16 programmatic reviews.

17 MS. BORGIA: Just a very fast follow-
18 up on that. So if something, during the
19 decommissioning process, where to go awry, how do you
20 -- what's the mechanism for you to get called to look
21 at what could potentially have gone wrong?

22 MS. WARNER: So we have periodic
23 meetings with the site. Right now, we're doing about
24 weekly to get an idea of what's going on, what issue
25 reports, so what things have been reported in to

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2 their corrective action program.

3 And from those indications, we plan
4 our inspections accordingly based on the risk and any
5 issues identified.

6 CHAIR CONGDON: Okay. Assemblywoman
7 Levenberg, and then, we'll go to E.P.A.
8 Assemblywoman?

9 ASSEMBLYWOMAN LEVENBERG: Thank you so
10 much for all the questions that -- a lot of my
11 questions were also answered. I do -- I am still
12 curious how you get to that three millirem estimate.
13 I mean, as who's doing the actual monitoring in the
14 Hudson? Who is actually looking at those numbers? I
15 mean, not looking at them, pulling them.

16 MS. WARNER: So the framework that we
17 have in place is the N.R.C. originally approved that
18 Offsite Dose Calculation Manual. And that is what
19 gave the licensees -- incorporated those three
20 millirem limit into their license.

21 And then, the licensee has to take
22 certain samples to be able -- and then, evaluate the
23 dose from the samples from what the concentrations
24 are to determine if they meet that limit.

25 ASSEMBLYWOMAN LEVENBERG: Okay. So

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2 just to be clear, so Holtec is monitoring Holtec?

3 MS. WARNER: Holtec is taking the
4 samples, and then, we perform review of the numbers.
5 And that's what gives us confidence.

6 ASSEMBLYWOMAN LEVENBERG: But they're
7 the ones collecting the samples?

8 MS. WARNER: They're the ones
9 collecting the samples.

10 ASSEMBLYWOMAN LEVENBERG: Okay. I
11 just wanted to be clear on that.

12 CHAIR CONGDON: If I may add to that,
13 we're going to hear from --

14 ASSEMBLYWOMAN LEVENBERG: Yeah.

15 CHAIR CONGDON: -- Department of
16 Health --

17 ASSEMBLYWOMAN LEVENBERG: Yeah.

18 CHAIR CONGDON: -- later. There are
19 split samples that had been taken throughout the
20 history of the operations that D.O.H. also analyzes
21 on a monthly basis.

22 ASSEMBLYWOMAN LEVENBERG: Okay.

23 CHAIR CONGDON: And they've taken
24 monitoring samples out of the Hudson River, as well,
25 which they will speak to. So go ahead.

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2 ASSEMBLYWOMAN LEVENBERG: Okay. But
3 when we're looking -- when you're looking at the
4 Hudson, I guess, is there -- is there an actual way
5 to determine cumulative impact to the Hudson, itself,
6 and what we actually know about long-term impacts to
7 a body of water, whether it be a tributary like the
8 Hudson or anything else? Do we have any type of, you
9 know, solid over time impacts?

10 MS. WARNER: Okay. So the
11 environmental monitoring program, that's like that
12 sister program that also verifies what the effluent
13 program has -- the numbers are for. And the
14 environmental program was designed to take a look at
15 any of those cumulative effects.

16 So the site is required to take
17 samples of various media, like water from the Hudson,
18 sediment, and those numbers would help determine
19 whether or not that's taking place.

20 ASSEMBLYWOMAN LEVENBERG: And is that
21 also two -- two part -- I mean collection? There are
22 two different agencies collecting?

23 CHAIR CONGDON: Yes, there are --
24 there is surveillance happening by the Department of
25 Health, which they will speak to at their

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2 presentation, so if we could hold off on that. Were
3 you referring to cumulative -- accumulating --
4 accumulating toxins, accumulating radionuclides?

5 ASSEMBLYWOMAN LEVENBERG: Correct,
6 yes, so in other words --.

7 CHAIR CONGDON: Because Dave -- Dave
8 Lochbaum is on the line and --

9 ASSEMBLYWOMAN LEVENBERG: Okay.

10 CHAIR CONGDON: -- and one of the
11 various presentations, he's given us through various
12 slide decks, did a comparison of the historic
13 monitoring data from D.O.H. and from Entergy, prior
14 to Holtec, as well as looking at a different power
15 plant that's on a lake, versus a river.

16 And you see the cumulative impacts on
17 the lake over the historical reports to the N.R.C.,
18 but you don't see that accumulation happening in the
19 river. And that's logical because it's a river.

20 David Lochbaum, you're on the line.
21 You want to add to anything I just said about your
22 analysis?

23 MR. LOCHBAUM: No; that -- that was
24 the reason I looked for the sampling results that
25 Katherine spoke to earlier, was to see if the amounts

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2 that are being released annually are below the limits
3 but are they bio accumulating or otherwise causing
4 more harm down the road?

5 And the data just didn't show that, as
6 opposed to the lake in Kansas, where it was steadily
7 climbing towards the 20,000 picocuries per liter
8 drinking water standard over time.

9 ASSEMBLYWOMAN LEVENBERG: The only
10 thing I would -- just wanted to add is that, you
11 know, to sort of echo the senator and supervisor's
12 comments, I think that, you know, we've seen these
13 cozy relationships over time and, certainly, that's
14 something that the N.R.C. has been known for. And I
15 think that that taints the process in terms of
16 collection of sampling.

17 And I'm glad to know that there's --
18 that there is another, you know, agency that's also
19 been looking at this. I think that's important that
20 we have that information. But also, you know, in
21 terms of level setting, I think that, you know, we've
22 heard from some other experts about what that level
23 setting really looks like.

24 So I think that's something that would
25 be worth digging into a little bit more, maybe

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2 separately, where we can really look at the impacts
3 that we're hearing about tritium and get some answers
4 to questions that have been asked in the past at this
5 table.

6 CHAIR CONGDON: I -- I think I
7 understand and I totally agree with the perception
8 that's out there about Holtec taking its own sample
9 and reporting it to the N.R.C. And I think that's
10 been something we've heard loud and clear as one of
11 the gaps, right.

12 And -- and the State has talked to the
13 Department of Health. We've talked to Holtec about
14 our desire to get our own sample in our custody at
15 our lab at the state and verify what is in the tank
16 before the discharge occurs.

17 And they have agreed to that. We're
18 still working out all the details, especially as an -
19 - a going-forward basis for all the batches. So
20 that's still work being worked out, but at a
21 baseline, we're going to get in there, get the test
22 and the analysis done before any discharge happens.
23 And it'll be independently verified by the Department
24 of Health.

25 So with that, I -- I would -- we're

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2 way behind schedule, which is typical. So it's
3 because we have good discussions and good questions.

4 Alyssa Arcaya from the Environmental
5 Protection Agency, are you still with us?

6 MS. ARCAYA: I am here. Can you hear
7 me?

8 CHAIR CONGDON: Yes, we can. Thank
9 you very much for your patience. Please go ahead.

10 MS. ARCAYA: So thank you to the
11 Decommissioning Oversight Board for asking E.P.A.
12 Region Two to participate here tonight. I'm Alyssa
13 Arcaya and I serve as the deputy director of the
14 water division at E.P.A. Region Two.

15 Region Two serves New York, New
16 Jersey, Puerto Rico, the U.S. Virgin Islands, and
17 eight federally recognized Indian nations. And I'm
18 sorry that I can't join you in person this evening,
19 but I'm pleased to have the opportunity to
20 participate virtually.

21 I'm here tonight to briefly discuss
22 the water regulatory landscape surrounding Indian
23 Point and clear up some points of potential confusion
24 because the question of which agencies are
25 responsible for what here can be confusing.

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2 And before I get started, I'd just
3 like to clarify that E.P.A. does not have a direct
4 role in regulating Indian Point. And I'll get into
5 some more detail about that in a moment.

6 Next slide, please. So the four
7 things I'll cover in my brief time here tonight are,
8 first, the role of New York State D.E.C. and E.P.A.
9 in implementing the water permitting program
10 authorized by the Clean Water Act called NPDES.

11 Second, clarification on the role of
12 E.P.A. versus the Nuclear Regulatory Commission, or
13 N.R.C., on radio -- regulating radioactive materials
14 in wastewater. Third, clarification on E.P.A.'s
15 regulatory authority over radioactive materials under
16 the Clean Water Act, versus the Safe Drinking Water
17 Act. And finally, explaining a few key differences
18 between the situation here at Indian Point, versus
19 the Pilgrim Nuclear Power Station in Massachusetts.

20 Next slide, please. So first, New
21 York, like many other states, is authorized to
22 implement the National Pollutant Discharge
23 Elimination System, or NPDES, permitting program.

24 The name and the acronym is a
25 mouthful, but essentially and, as many of you know,

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2 the NPDES permitting program addresses water
3 pollution by regulating the discharge of pollutants
4 to the waters of the U.S.

5 The NPDES permit program was created
6 by the Clean Water Act and is authorized to many
7 state governments by E.P.A. to perform permitting,
8 administrative, and enforcement aspects of the
9 program.

10 And as most of you know, in New York,
11 New York State D.E.C. is the permitting authority for
12 the NPDES program. And since the permits they issue
13 are state permits, in New York, the program is called
14 the SPDES program, or the State Pollutant Discharge
15 Elimination System Program.

16 E.P.A. retains an oversight role over
17 authorized state programs. So what does oversight
18 look like? We conduct periodic reviews of overall --
19 overall program health, ensuring that the state
20 programs meet all Clean Water Act requirements. We
21 review and comment on certain draft state permits and
22 sometimes identify issues that must be resolved
23 before the permit is finalized. We also provide
24 technical assistance and training to state programs.

25 Next slide, please. Secondly, I'd

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2 just like to touch on the role of E.P.A. versus the
3 N.R.C. when it comes to effluent discharges. And
4 this has been covered several times tonight already.
5 The term pollutant, in the Clean Water Act, excludes
6 radioactive materials which are regulated by the
7 N.R.C. under the Federal Atomic Energy Act.

8 And for this reason, NPDES permits
9 issued by E.P.A. and SPDES permits issued by New York
10 State D.E.C. do not regulate these radioactive
11 materials. But water stored and used in nuclear
12 power generating facilities does contain Clean Water
13 Act regulated pollutants and these are the focus of
14 New York State D.E.C.'s SPDES permit to Holtec.

15 So I'll just note that in her
16 presentation, Katherine Warner of the N.R.C. referred
17 to E.P.A. standards, which are part of our Air and
18 Radiation program. And I'm here from our Water
19 Program and so I can't -- I'm not going to be able to
20 answer many specific questions about these standards,
21 but I just want to clarify that they -- the presence
22 and the existence of those standards does not give us
23 jurisdiction to regulate radioactive discharges under
24 the Clean Water Act.

25 Next slide, please. So as I mentioned

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2 a moment ago, under the Clean Water Act, E.P.A. does
3 not regulate the discharge of radioactive materials
4 to surface water because it is the purview of the
5 N.R.C. But E.P.A. does have a role in regulating
6 certain radioactive substances under the Safe
7 Drinking Water Act, specifically under a drinking
8 water rule called the radionuclides rule.

9 The Safe Drinking Water Act authorizes
10 E.P.A. to set national health-based standards for
11 drinking water to protect against both naturally
12 occurring and human-made contaminants that may be
13 found in drinking water.

14 We do this, in part, through national
15 primary drinking water regulations, which set
16 enforceable maximum contaminant levels, or M.C.L.s,
17 for certain contaminants in drinking water.

18 The E.P.A.'s radionuclides drinking
19 water rule has established a standard for beta
20 emitters, a group of contaminants which includes
21 tritium, of four millirems per year, you've heard
22 before tonight. And for tritium, this corresponds to
23 a derived level of 20,000 picocuries per liter.

24 However, this role that E.P.A. has
25 under the Safe Drinking Water Act does not translate

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2 into an authority for E.P.A. to regulate radioactive
3 discharges under the Clean Water Act for wastewater.

4 And finally, I should mention that,
5 under the Safe Drinking Water Act, most states have
6 been approved for something called primacy, meaning
7 the authority to implement and enforce the Safe
8 Drinking Water Act within their jurisdictions. In
9 New York, the New York State Department of Health is
10 the primacy agency for drinking water.

11 Next slide, please. So now that we've
12 covered these issues, I'd just like to touch on the
13 differences between what is happening here with
14 Indian Point and what is happening in Massachusetts
15 with the Pilgrim Nuclear Power Station. As many of
16 you know, the Pilgrim Nuclear Power Station in
17 Plymouth, Massachusetts is also in the process of
18 being decommissioned by Holtec.

19 E.P.A.'s Region One office, which is
20 in Boston, is playing an active role with the Pilgrim
21 facility and this has caused some confusion and
22 raised some questions about E.P.A.'s role and, in
23 turn, New York State D.E.C.'s role in permits for
24 Indian Point.

25 So I'd just like to note a couple of

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2 things. First, unlike in New York State,
3 Massachusetts is not authorized to implement the
4 NPDES permitting program. Because of that, E.P.A.
5 issues the NPDES permit to Holtec. But as we know in
6 New York State, New York State D.E.C. is the
7 permitting authority.

8 Second, just like New York State
9 D.E.C.'s permit to Holtec, Region One's NPDES permit
10 to Holtec does not regulate radioactive discharges,
11 but rather other possible contaminants covered by the
12 Clean Water Act.

13 The permitting timeline with the
14 facility -- the Pilgrim facility is also different.
15 Region One issued the current NPDES permit to Holtec
16 in 2020 for the Pilgrim facility. NPDES permits have
17 a five-year permit term, so it is an active, or as we
18 call it an effective, permit.

19 The New York State D.E.C.'s SPDES
20 permit to Holtec was issued in 2017. So we're now
21 past the five-year window of the permit term. But
22 because Holtec applied for a permit renewal in a
23 timely manner, the SPDES permit is now what we call
24 administratively continued, or as New York State
25 calls it SAPA extended.

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2 And the difference is significant
3 because, under the Clean Water Act, we can modify or
4 change an active or an effective permit, but not an
5 administratively continued one. So both Region One
6 and New York State D.E.C. are working on permitting
7 actions for Pilgrim and Indian Point, but the Region
8 One action is a permit modification, while New York
9 D.E.C. is working on a renewal permit.

10 So now that we've covered this, so
11 what is happening at E.P.A. Region One? When Region
12 One issued their NPDES permit to Holtec in 2020, they
13 drafted the permit so that it would cover discharges
14 related to the operation, but not the decommissioning
15 of the facility.

16 Why did they do this? At the time the
17 permit was drafted, Region One did not have
18 sufficient information about the non-radiological
19 pollutants that would be released during the
20 decommissioning process, including from the spent
21 fuel pools.

22 This is because the permit renewal
23 application did not include sufficient information on
24 the nature of this and other waste streams during
25 decommissioning.

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2 So Region One included a permit
3 condition that prohibited the discharge of effluent
4 from spent fuel pools. Region One will address
5 decommissioning discharges via a permit modification.
6 Holtec has applied for this permit modification and
7 Region One is in the process of reviewing these
8 materials now.

9 These materials will include a
10 detailed characterization of the pollutants in the
11 spent fuel pool water, which is critical for E.P.A.
12 Region One to be able to draft a permit modification
13 that meets Clean Water Act requirements. But again,
14 neither the current program permit, nor of the permit
15 modification, if it is issued, will address
16 radioactive discharges.

17 In contrast, the New York State SPDES
18 permit to Holtec does not include this key
19 prohibition on spent fuel pool discharges. I know
20 New York D.E.C. is in attendance tonight. So I won't
21 speak about the permit for which they have so much
22 expertise.

23 But this key provision impacts how
24 both agencies, E.P.A. Region One and New York State
25 D.E.C., have communicated with Holtec about the

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2 decommissioning discharge.

3 So I just wanted to, again, thank the
4 Decommissioning Board for inviting us to share these
5 clarifications about the federal E.P.A. and state
6 rules of play here for the water discharges from
7 Indian Point. Thanks very much.

8 CHAIR CONGDON: Alyssa, thank you very
9 much. And can I confirm that you'll be able to stay
10 on for the Q and A? I -- I'd like to allow the state
11 agency presentations to go next, and then, we'll go
12 to a Q and A?

13 MS. ARCAYA: Yes, I can stay until the
14 end. Thank you.

15 CHAIR CONGDON: Thank you very much.
16 Next up we have Alex Damiani from the
17 New York State Department of Health. Alex?

18 MR. DAMIANI: Thank you. How's that?

19 CHAIR CONGDON: That's better.

20 MR. DAMIANI: Okay. Thanks.

21 Thank you for the invitation to come
22 here tonight. I appreciate it. And what I would
23 like to discuss is the New York State Department of
24 Health's radiological surveillance program that we
25 conduct.

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2 Now, this is a statewide program. We
3 do it around the state at a number of sites, but what
4 I'm going to go over are just a few of the points we
5 -- we collect data at here, around Indian Point.

6 So if we look at the map, you'll see
7 there are four blue dots. We actually collect only
8 three of those at any given time. We -- we had one
9 at the intake originally, one at the point of
10 discharge, and one at the, I believe, the Verplanck
11 marina.

12 Once the plant shut down, we switched
13 that intake point up to Roseton, which is, I had it
14 on the map 20 miles, but that's as the crow flies.
15 If you do what's called river miles, I believe it's
16 closer to like 30 to 35 miles. So there's a lot of
17 water between -- between here and there.

18 We also -- not that they're as
19 relevant to this discussion, we also collect an air
20 sample, as well as three T.L.D. sites, or just
21 ambient gamma radiation. And those were more
22 relevant when the plant was operational, but -- but
23 not something we -- we have seen anything on in any
24 case, right.

25 Next slide, please. So the Department

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2 of Health's laboratory does perform a comprehensive
3 radiological analysis of these water samples. This
4 analysis includes tritium, gross alpha, gross beta,
5 and gamma-emitting radionuclides.

6 Samples taken at the point of
7 discharge in Roseton are composite samples of water
8 that are representative of the contaminant levels
9 throughout the month, whereas the Verplanck is a grab
10 sample.

11 And all of this data, if you want to
12 look at it, is on Open Data, right, everything can be
13 found there. There's a link on the D.O.B.'s website
14 to the Open Data in the New York State Health
15 Department's Open Data site.

16 MR. DAMIANI: Next slide, please. So
17 the tritium measurements near Indian Point, results,
18 you know, just to be clear, we've been through a lot
19 of units here. We've talked about radiation dose.
20 We're talking here about a concentration, right. So
21 we're looking at an amount of radioactivity in a
22 given volume of water. And the way we measure that
23 is picocuries per liter.

24 When we look at those numbers, the
25 only isotope that has ever resulted in any sort of

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2 above-background readings have been the monthly
3 tritium numbers. And just -- okay, so what is
4 background?

5 I -- I think Katherine might have
6 mentioned it, but just in general -- we'll -- we'll
7 put -- to put it very simply, background is just that
8 level of radioactivity which is seen at unaffected
9 locations around the state. We can -- we can use
10 that as a characterization of it.

11 So most of our tritium results are
12 consistent with measurements taken at the background.
13 They're -- they're -- they're generally, you know,
14 background levels. However, we do find about a
15 quarter of them are elevated. And those are
16 principally ones at the point of discharge and a few
17 at the -- at the Verplanck Marina.

18 Okay. So if we go back to the maximum
19 contaminant level -- maximum contaminant limit of the
20 E.P.A., the drinking water standard is 20,000
21 picocuries per liter, right. And that's -- that's
22 what we -- we look at.

23 The highest result we've ever seen in
24 the past 15 years of operation has been this 3,800
25 picocuries per liter, which was at the point of

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2 discharge. So that's roughly 20% of -- of the
3 M.C.L., right.

4 Next slide, please. So where are we
5 going from here? Well, as Tom mentioned and -- and -
6 - you know, others here have mentioned, we are
7 working with Holtec to -- to do some additional
8 sampling including, you know, the tanks prior to
9 discharge to do a better characterization, a more
10 thorough complete characterization of that.

11 So we will take those. And we're
12 still working out that timetable and the logistics of
13 that, just exactly how we're going to do this. These
14 samples, again, they're going to be analyzed for --
15 for the tritium, the gross alpha, the gross beta,
16 fission products, your -- your gamma spec basically.
17 But these also will wind up having samples for some
18 non-radiological hazards. But I'll -- I will let
19 Kelly from the D.E.C. discuss some of that as part of
20 the SPDES permit.

21 The Department of Health will review
22 these results and we will share them with the
23 Decommissioning Oversight Board and hopefully that
24 information can get posted in a relatively timely
25 manner.

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2 I will note that the lab takes
3 approximately two weeks to do a complete analysis of
4 everything. We can get a few things a little
5 quicker, but for the most part, to do a lot of these
6 analyses, there's a lot of wet chemistry that goes
7 on. So it will take a little while. You're not
8 getting real time results here, for -- for these
9 samples.

10 So -- and while we talk about this
11 future sampling, this is additional sampling. We're
12 going to keep the surveillance program going. We're
13 going to take the Verplanck sample. We're going to
14 take the Roseton sample. And we will continue
15 measuring at the point of discharge. That will not
16 change.

17 CHAIR CONGDON: Thank you, Alex.

18 MR. DAMIANI: Thank you.

19 CHAIR CONGDON: Welcome to the D.O.B.

20 Kelly? Kelly Turturro from the
21 Department of Environmental Conservation.

22 MS. TURTURRO: Thank you, Tom.

23 So I've talked for a couple meetings
24 about our SPDES permit process. And I'm -- I'm just
25 going to go high -- talk high level about where we

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2 are in that process. There will be more to come in
3 the future, as I've talked about in the past. I also
4 want to hit on a -- a -- a few items that were raised
5 through the E.P.A. presentation.

6 So as has been mentioned, Holtec
7 operates pursuant to a New York State SPDES permit.
8 That SPDES permit governs non-radiological discharges
9 from the facility. Currently, this -- the existing
10 SPDES permit is SAPA extended. So the SPDES permit
11 expired in 2022 and, because Holtec filed a -- an --
12 an application within the correct timeframe, that
13 permit has been extended.

14 D.E.C. received a full application
15 from Holtec at the end of January of this year. Our
16 staff is going through that application and reviewing
17 that application. As soon as we find that the
18 application is complete under our regulations, we
19 will draft a SPDES permit and we will put that SPDES
20 permit out for public notice and comment.

21 So at that time, the community will be
22 able to review a draft SPDES permit. I don't yet
23 have a timeframe on that, but I will certainly keep
24 you updated, especially at the next meeting.

25 Just a few things that I wanted to

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2 follow up from E.P.A.'s presentation on. As D.E.C.
3 reviews SPDES permit applications, we review a
4 variety of pollutants that could possibly be in
5 discharges. It -- they are called criteria
6 pollutants and it's a list of about 126 pollutants
7 that -- that E.P.A. has. Those pollutants are
8 reviewed through our application process for any
9 facility.

10 Secondly, Alyssa mentioned a
11 distinction between the -- the Pilgrim facility NPDES
12 permit and the D.E.C. SPDES permit in terms of how
13 the renewal process goes. And I just wanted to
14 mention that, under D.E.C.'s regulations, the
15 regulations that govern how we process permits, they
16 have timeframes in there. They essentially set the
17 rules of how D.E.C. process --- processes a -- a
18 permit application.

19 It allows D.E.C to change renewals.
20 So we are able to modify permits when we are going
21 through a renewal process. It's -- it's a small
22 distinction, but I -- but I thought it was important
23 for the community to hear.

24 And then, finally, in terms of split
25 sampling, as Tom mentioned and -- and as Alex

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2 mentioned, we -- we are working with the Department
3 of Health to participate in the split sampling on the
4 non-radiological side, in terms of the criteria
5 pollutants that I mentioned.

6 Thank you, Tom.

7 CHAIR CONGDON: Thank you, Kelly.

8 And next, we have Lisa Burianek, who
9 is an Assistant Attorney General in Attorney General
10 Tish James's office.

11 MS. BURIANEK: Good evening. I'll be
12 brief because -- and I -- we're over time from -- off
13 the agenda, yes. I would be getting kicked by Tom if
14 I was sitting next to him. And how often have you
15 heard that from a lawyer, I'll be brief?

16 The Attorney General's office
17 continues to be committed to help ensure that the
18 decommissioning of Indian Point is safe, rapid, and
19 complete. We have a long history, as Mr. Sipos
20 mentioned, of working to protect New Yorkers' safety,
21 the health and New York's environment during Indian
22 Point's operation.

23 We repeatedly used our legal
24 authorities to defend D.E.C. permits and also the
25 D.O.S. Coastal Zone Management Act resource

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2 designation from challenges by Entergy, which was
3 Indian Point's former owner.

4 For more than a decade, we
5 participated and challenged the -- and opposed the
6 relicensing of the Indian Point facility based on
7 public safety and environmental concerns. We
8 negotiated the agreement for closure of Indian Point
9 that led to this decommissioning process that we're
10 talking about tonight.

11 At the time of Holtec's purchase of
12 the Indian Point facility, we worked very closely
13 with state agencies to -- and -- and Holtec,
14 actually, to work through legally defensible and
15 protective decommissioning conditions for -- and as
16 well as site cleanup that were actually -- they --
17 they exceeded the regulatory requirements of the
18 N.R.C.

19 While you've heard tonight that the
20 State does not regulate effluent from a nuclear power
21 plant, there were other things that, creatively, we
22 could do. And those creative things that -- that
23 were really the first of their kind in the United
24 States included heightened financial assurance,
25 management of the trust fund expenditures, and

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2 project benchmarks that were incorporated into the
3 P.S.C.'s 2021 order.

4 As you've heard already this evening,
5 the State doesn't regulate the effluent. That said,
6 O.A.G., on behalf of the various state agencies that
7 we represent, as well as the people of the State of
8 New York, we continue to work in our role as the
9 State's lawyer to ensure compliance with the existing
10 law, federal and state, and to support our sister
11 state agencies in the safe, rapid, and complete
12 decommissioning of Indian Point.

13 With that, I'd be happy to answer any
14 questions from the D.O.B. and the public. Thank you.

15 CHAIR CONGDON: Okay. I know there
16 are a few questions. Thank you very much, Lisa.
17 Thank you, Kelly. Thank you, Alyssa. And thank you,
18 Alex.

19 Just a quick sort of summary
20 observation from me and then I'll get to some
21 questions. I think there's been a lot of talk about
22 what's going on at Pilgrim, versus what's going on
23 here at Indian Point.

24 And I want to highlight what I just
25 heard, which is both E.P.A. in the context of

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2 Pilgrim, and D.E.C. in the context of Indian Point
3 are regulating the non-radiological discharge;
4 correct? Alyssa, right? The non-radiological
5 pollutants?

6 MS. TURTURRO: Yes.

7 MS. ARCAYA: Sorry, I had trouble
8 coming off mute, but yes, that is correct.

9 CHAIR CONGDON: Right. Thank you.
10 And -- and the other, I think, perception here in New
11 York is that E.P.A. took a stand to prohibit the
12 discharge in Massachusetts. And that's not entirely
13 accurate from what I heard. It sounds more like
14 there's a permit application pending E.P.A.'s review
15 and the difference there was simply one of timing and
16 a permit that expired, versus here having an a -- a
17 permit that was renewed by timely application.

18 And so is that -- my -- did I get the
19 understanding correct, Alyssa?

20 MS. ARCAYA: Yeah. I think that's
21 correct. And I would just add, and I mentioned this,
22 but I'll just clarify that for the Massachusetts's
23 permit, when E.P.A. Region One received the permit
24 application from Holtec, it just didn't contain
25 enough information about the decommissioning process

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2 for them to draft a permit, that also addressed those
3 discharges.

4 And so the permit that they issued was
5 for the operation of -- of the facility. So it
6 wasn't just a timing issue; it was also about the
7 information that they had available to them at that
8 time --

9 CHAIR CONGDON: Uh-huh.

10 MS. ARCAYA: -- to -- to draft a
11 permit. But yes, and it's also a -- a timing issue.
12 That -- that -- that is also true.

13 CHAIR CONGDON: Thank you.

14 And Rich, I don't want to put you on
15 the spot. I know you're not the Massachusetts's
16 Holtec representative, but I was concerned to hear
17 that Holtec paused for four years decommissioning at
18 Pilgrim, paused for four years at Oyster Creek. This
19 was announced by Holtec last month.

20 Can you explain why Holtec paused at
21 those two locations?

22 MR. BURRONI: Part of the --

23 CHAIR CONGDON: Mic.

24 MR. BURRONI: Yes. So part of the
25 reason is because they can't discharge to Cape Cod

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2 Bay, right, they put a pause on. And eventually that
3 led to laying off some of the people at the Pilgrim
4 station.

5 CHAIR CONGDON: Okay. But you did the
6 same thing at Oyster Creek and you've already did --
7 dewatered those pools; right?

8 MR. BURRONI: I wouldn't -- I don't
9 know all the details about Oyster. I don't.

10 CHAIR CONGDON: Okay.

11 MR. BURRONI: But I can tell you at
12 Pilgrim, because they can't discharge to Cape Cod
13 Bay, that's why they put the pause in. That's one of
14 the major reasons.

15 CHAIR CONGDON: Okay. Thank you.
16 We have some questions?

17 MS. TURTURRO: There's somebody that
18 might want to speak.

19 CHAIR CONGDON: I'm sorry. Do you
20 have more to add to what Rich said? This is Pat
21 O'Brien from Holtec.

22 MR. O'BRIEN: Pat O'Brien, I'm the
23 Director of Government Affairs and Communications for
24 Holtec and cover not just decommissioning but our
25 entire company.

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2 So, yeah, Rich is right. Part of the
3 reason for the delays at Pilgrim is related to water
4 discharge. But really, the other two sites, where
5 they are in the process, a lot of it has to do with
6 inflated costs.

7 Obviously, we've all seen the effects
8 of inflation, both materials and labor, and -- and
9 honestly, market performance with the trust funds.
10 So we didn't want to lock in those losses. So we --
11 we have extended those projects out from 8-year -- 8-
12 year timelines originally, to 12-year timelines.

13 CHAIR CONGDON: Thank you.

14 Could I -- Senator Harckham, I
15 believe, had a question for the E.P.A.?

16 SENATOR HARCKHAM: I -- I do. Thank
17 you. And just in -- in the spirit of a news flash, I
18 think the governor is announcing a budget deal now.
19 So many of you at the table will get paid next week.
20 Just thought we would announce that.

21 Alyssa, a question that -- that for --
22 for E.P.A., again, similar to the question that I
23 asked the N.R.C. about cumulative impacts and the
24 M.C.L.s. You set maximum contaminant limits per
25 substance, but just very briefly, you know, one study

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2 showed 80% of Americans have the active ingredient of
3 Roundup in their urine. A hundred percent of
4 Americans have plastics in their systems, PFAS,
5 pharmaceuticals, endocrine disruptors, heavy metals.

6 One study that I was involved in
7 funding showed that the average American, at least in
8 the study group, had 120 chemicals in their system at
9 any given time.

10 Are we taking into account, with our
11 federal water standards, cumulative impacts, as
12 opposed to just an acceptable substance -- a standard
13 per substance? Thank you.

14 MS. ARCAYA: Thank you for that
15 question. I -- I appreciate it. And I'll try my
16 best to answer it, but I'll -- I'll also note I'm
17 here from a regional office where our job is to
18 implement the program, and our headquarters office,
19 they are the ones that both develop and -- and revise
20 drinking water rules and M.C.L.s.

21 So if I -- if I can't address
22 everything in your question, I'll be happy to take
23 this back to our headquarters office and come back to
24 the Decommissioning Board with more details. But
25 certainly, it's an important question, and -- and we

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2 learn more with each passing year, as the science
3 evolves, about health impacts of substances in our
4 environment.

5 There was a speaker on the
6 Decommissioning Board, earlier, that mentioned PFAS
7 and per- and polyfluoroalkyl substances. We weren't
8 worrying about that 30 years ago. Now, we're in the
9 process of developing M.C.L.s for this.

10 So I'll just say, in our -- in our
11 drinking water rules, we revisit those standards on a
12 regular basis. So the radionuclides rule is one of
13 E.P.A.'s national primary drinking water regulations.
14 The Safe Drinking Water Act requires E.P.A. to review
15 each existing primary drinking water regulation every
16 six years. We call it the six-year review.

17 And as part of that six-year review,
18 E.P.A. evaluates any newly available data,
19 information, and technologies to determine if
20 regulatory revisions are needed. And any revision
21 that we -- that we finalize must maintain or increase
22 public health protection.

23 So you know, reviewing the latest
24 science is part of our regular review of our drinking
25 water rules, but in -- in terms of the specifics

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2 about how we look at cumulative impacts, especially
3 from other contaminants, I would have to get back to
4 you with more details. And I'd be happy to do that.

5 SENATOR HARCKHAM: Yes. Thank you. I
6 -- I'd really appreciate that because I -- I
7 appreciate the -- that you update your regulations,
8 but unless we're specifically studying cumulative
9 impacts, which -- which there is a growing body of
10 medical evidence to suggest, has an -- can have an
11 adverse impact on human health.

12 You know, we'd just love to know what
13 -- what the Federal Government is doing in that
14 arena. Thank you.

15 CHAIR CONGDON: Thank you, Senator.

16 MS. ARCAYA: Thank you.

17 CHAIR CONGDON: I believe Supervisor
18 Becker, Mayor Knickerbocker, and possibly Richard
19 Webster online have questions.

20 So go ahead, Supervisor Becker.

21 DR. BECKER: Thank you very much, Tom.

22 My question actually comes from the
23 audience. I've been getting texts and emails, so
24 this is directed at the D.E.C. And I must say Kelly,
25 publicly, thank you for all your help here in the

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2 Town of Cortlandt.

3 For those who don't know, we had a
4 dusting incident from another company that was
5 putting out gypsum dust into the air. And the D.E.C.
6 was all over it and helped get us to a good
7 resolution. I'm sure that Mayor Knickerbocker would
8 support me in that thank you.

9 Anyway, the question is did the D.E.C.
10 use a SPDES permit to close the plant, originally, to
11 help during the shutdown? What authority did they
12 use -- what if it wasn't radiological, it had to do
13 with the treatment system. Why was it a problem
14 then, and it isn't a problem now? Why was the permit
15 renewed if the D.E.C. in New York State through the -
16 - thought that the system was safe?

17 MS. TURTURRO: I will start the answer
18 to that question. And then Lisa and John can weigh
19 in if they'd like.

20 DR. BECKER: Okay.

21 MS. TURTURRO: So the basis for the
22 D.E.C. litigation to close the Indian Point Plant was
23 based on both a SPDES permit and a water quality
24 certification. And it took into account and was
25 focused on, not the discharges from the facility, but

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2 the way the facility was pulling water into the
3 facility from the Hudson River.

4 We had argued that there was an impact
5 on species in the river, and -- and that was the
6 basis of our lawsuit. So it -- it surrounded a -- a
7 water quality certification based on pulling cooling
8 water into the facility and not based on the
9 discharges.

10 There was a second part of your
11 question that I don't remember.

12 DR. BECKER: I guess it's why isn't it
13 relevant now? But that may explain it.

14 MS. TURTURRO: Okay. John or Lisa,
15 did you want to add anything to that?

16 MR. SIPOS: Just in brief, that
17 litigation, which went on for, I think, you know, 13
18 or 15 years, as -- as Kelly indicated, it did involve
19 a cooling water intake system, or CWIS, and what was
20 the best technology available to protect fish in the
21 river and also, you know, to -- to -- to ensure that
22 they were not -- not harmed.

23 And so it was a -- it was really a
24 different aspect. And again, that is set out in the
25 Indian Point Closure Agreement from January 2017,

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2 it's on Riverkeeper's website, and it's Exhibit I to
3 the closure agreement.

4 CHAIR CONGDON: Thank you.

5 I believe Richard Webster online has a
6 question.

7 MR. WEBSTER: Yes. I have a question
8 probably for -- for E.P.A. and D.O.H., which is, you
9 know, I -- I -- I made the very bright suggestion
10 that John was crediting me with of comparing with the
11 20,000 picocuries per liter standard. But then when
12 I looked to that standard and people point out to me
13 in the community that it's not clear on what basis
14 that standard was made.

15 I'm looking at an old Scientific
16 American article here, where an expert on risk
17 analysis, from -- of cancers from tritium says it's
18 not a health-based standard, it's based on what was
19 easily achievable.

20 So I just wanted to get the opinion.
21 Is it a health-based standard or is it not a health-
22 based standard? If it's not a health-based standard,
23 do we have any health-based standards, and do we have
24 standards that protect the most vulnerable of
25 populations?

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2 MS. ARCAYA: I can -- I can -- this is
3 Alyssa from E.P.A. I can -- I think I can address
4 some of those questions. So and I just want to zoom
5 out a little bit from the radionuclides rule or the
6 standard for tritium, and just talk about how we
7 establish M.C.L.s for drinking water contaminants.
8 And I -- I think this may get at some of your
9 questions.

10 So as part of our process, our
11 regulatory process for establishing M.C.L.s, we first
12 review health effects data. And we use that
13 information to set what's called maximum contaminant
14 level goals, or M.C.L.G.s. So these are -- these is
15 -- these are the maximum level of a contaminant in
16 drinking water at which no known or anticipated
17 adverse health effect on healthy persons would occur.
18 And it also allows for an adequate margin of safety.

19 And when they -- these are called
20 M.C.L.G.s. When they're developed, they also take
21 into consideration exposure to infants, children, the
22 elderly, and the immunocompromised. So these are
23 non-enforceable public health goals and they consider
24 only public health and not, for instance, the levels
25 -- the limits of detection or treatment technology

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2 effectiveness.

3 So therefore, they're sometimes set at
4 levels that water systems can't even meet because of
5 technology limitations. So once we have an M.C.L.G.
6 determined, E.P.A. then works on setting an
7 enforceable standard. And in most cases, the
8 standard is a maximum contaminant level or M.C.L.,
9 which we've been talking about tonight. And the
10 M.C.L. is the maximum level of a contaminant in water
11 which is delivered to any user of a public water
12 system. And it's set as close to the M.C.L.G. as
13 feasible.

14 So I think this gets into your
15 question of are these health-based standards or are
16 they something else because the M.C.L. development
17 process does take factors like cost and feasibility
18 into consideration. We also have to look at feasible
19 treatment techniques.

20 So we -- we look at -- for feasible
21 treatment techniques, we look at the -- the level
22 that can be achieved with the best available
23 technology or treatment approaches. And, of course,
24 the development of M.C.L.s also requires public
25 notice and public engagement for any of you who are

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2 following our M.C.L. developments that's going on
3 right now for PFAS.

4 So -- so are M.C.L.s health-based
5 standards? Not necessarily. The M.C.L. goals are,
6 and the M.C.L.s themselves also need to take factors
7 like cost, treatment feasibility, and other factors
8 into consideration. But they are set as close to the
9 M.C.L.G.s as feasible.

10 So that's -- that's for all of our
11 M.C.L.s and that's for all of our drinking water
12 rules. And I'm sorry for getting in -- a little bit
13 into the weeds on our regulatory development process
14 there, but I -- I hope that gets at, at least, some
15 of your question.

16 MR. WEBSTER: Right. So what's the
17 M.C.L.G. for tritium?

18 MS. ARCAYA: You know what, I don't
19 have that in front of me, but I will get back to the
20 D.O.B. with -- with that information.

21 MR. WEBSTER: Thank you.

22 CHAIR CONGDON: Thank you. Any --

23 MS. KNICKERBOCKER: Yeah.

24 CHAIR CONGDON: -- any other
25 questions? Ms. Knickerbocker?

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2 MS. KNICKERBOCKER: I have some
3 questions. So this is for Alyssa. I know we had
4 slides up earlier about the levels in the water. And
5 what I want to understand is the data -- the data
6 that's been collected, is this -- this drinking water
7 standards what comes out of the plant? So after it's
8 processed, goes into the discharge canal, what
9 standard is that -- that at, the water that comes out
10 of there?

11 MS. ARCAYA: Okay. So -- so as I said
12 before, so my expertise here extends sort of as far
13 as the Clean Water Act and Safe Drinking Water Act.
14 So you know, for -- for our purposes for the drinking
15 water program, we're looking at the -- the point of
16 the drinking water intake and then what -- you know,
17 what is distributed to the public, and is it -- is it
18 meeting M.C.L.s. The N -- the N.R.C. speaker,
19 Katherine Warner, she -- she referred to E.P.A.
20 standards in her presentation that are not part of
21 the Clean Water Act or Safe Drinking Water Act that -
22 - that are part of our Air and Radiation program.
23 And I -- I'm sorry, but I don't have the expertise to
24 speak to what -- what those look like at the point of
25 discharge for a facility like Indian Point.

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2 What our water program is looking at
3 is -- is -- I -- in this case, upstream, for the
4 drinking water systems at their intake and what the -
5 - what -- what the drinking water monitoring data is
6 telling us there.

7 MS. KNICKERBOCKER: Okay. But what my
8 question was, I was trying to get to was --

9 MS. ARCAYA: Uh-huh.

10 MS. KNICKERBOCKER: -- that it has
11 been said that the water is toxic that is being
12 released.

13 MS. ARCAYA: Uh-huh.

14 MS. KNICKERBOCKER: So I was trying to
15 get to what was measured and -- and you know, to --
16 to address that because the level was -- was pretty
17 low of what was measured.

18 MS. ARCAYA: Yeah. I -- I -- and, you
19 know, I was --.

20 MS. KNICKERBOCKER: ...

21 MS. ARCAYA: Oh, I'm sorry. Did
22 somebody say something?

23 MS. KNICKERBOCKER: No -- no. It was
24 just me. It was -- it was just a question, I think,
25 that -- that needed to get answered for the public.

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2 MS. ARCAYA: Yeah. I was listening in
3 on Tuesday night to all of the public statements and
4 -- and you know, I did hear that, you know, reference
5 to, you know, toxic -- toxic waste in our drinking
6 water. And you know, I -- I -- I will just say, you
7 know, I -- I wouldn't -- I wouldn't characterize the
8 -- the drinking water that meets all M.C.L.s as -- as
9 -- as toxic waste.

10 The drinking water -- the drinking
11 water that meets all federal and state standards are
12 -- are based on M.C.L.s that are protective of
13 health. And so I just went -- just in speaking about
14 the -- the drinking water program and the -- and what
15 we're seeing in terms of levels of -- of tritium that
16 are well below the M.C.L.s., I -- I would -- I -- I
17 don't think it's accurate to characterize it -- this
18 as -- this as toxic waste in our drinking water.

19 Like, so I don't know if that -- if
20 that gets at your question?

21 MS. KNICKERBOCKER: Yes. That's good.
22 Thank you.

23 CHAIR CONGDON: Any other questions
24 from D.O.B. members?

25 MR. WEBSTER: Could I just have a

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2 quick follow-up on the --?

3 CHAIR CONGDON: Richard, I'm sorry,
4 there's one question here that hasn't been asked yet
5 --

6 MR. WEBSTER: Okay.

7 CHAIR CONGDON: -- and then I'll --
8 I'll come back to you.

9 So Assemblywoman Levenberg.

10 ASSEMBLYWOMAN LEVENBERG: Alyssa,
11 thank you so much. I just wanted to see if, maybe
12 you already answered this, but how the goal, the
13 M.C.L.G., differs from the M.C.L. for tritium?

14 MS. ARCAYA: So that question did come
15 up. I think Richard had asked me what was the
16 M.C.L.G. for tritium, and I did say I don't have that
17 number in front of me, but I did promise that I would
18 get that to the D.O.B.

19 ASSEMBLYWOMAN LEVENBERG: Okay. Yeah,
20 I -- I think just knowing what that differential is
21 would be interesting.

22 MR. ARCAYA: For sure, I will happily
23 follow up.

24 ASSEMBLYWOMAN LEVENBERG: Thanks.

25 CHAIR CONGDON: Thank you very much.

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2 And with that I'm going to turn to the next item on
3 our agenda. I'm sorry? Oh, Richard, did you have
4 another follow-up? I'm sorry.

5 MR. WEBSTER: A quickie.

6 CHAIR CONGDON: Yeah. Just go ahead.

7 MR. WEBSTER: I'm just doing a quick
8 look at goals for tritium. And I see on a -- on the
9 N.R.C. website, it says, the California E.P.A.
10 adopted a public health goal of 400 picocuries per
11 liter for tritium in drinking water. Is that
12 correct?

13 MS. ARCAYA: So when you say
14 California E.P.A., I -- I think you may be speaking
15 about the state regulatory agency for California.

16 MR. WEBSTER: Correct.

17 MS. ARCAYA: So states, both under the
18 Clean Water Act and the Safe Drinking Water Act, are
19 able to adopt standards that are more stringent than
20 the federal government. California has done that in
21 -- in a lot of cases across many environmental
22 programs. And so I -- we -- in E.P.A. Region Two, we
23 -- we don't work with California directly. But I'm --
24 -- I guess I'm not surprised to hear that they may
25 have -- have different standards than -- than the

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2 federal levels, and they are allowed to do that.

3 Primacy agencies can adopt more
4 stringent drinking water standards if they choose.
5 They just have to be as standard -- as stringent as
6 the federal government.

7 MR. WEBSTER: Right. If I could just
8 editorialize quickly, I think this is one of the
9 difficulties of this area is that the standards that
10 are set vary so widely and I think it's quite
11 confusing for the public.

12 So could you comment on the basis of
13 the California standard? Is that based on a
14 different basis than the -- than the E.P.A. 20,000
15 picocuries per liter standard?

16 MS. ARAYA: I don't have any
17 background in this. I'd be happy to follow up with
18 E.P.A. Region Nine, that does serve California, and
19 see if I can get that information. I'd be happy.

20 MR. WEBSTER: Well, let we broaden --
21 let me broaden the question --

22 MS. ARAYA: Okay.

23 MR. WEBSTER: -- and then have a
24 follow-up, which is -- could we look at all the -- I
25 mean, is it possible to get a -- a survey of

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2 standards that are being used within the U.S.A. and,
3 you know, the basis on which those standards are set?
4 Because I think it's important here to be able to set
5 some standards that people are comfortable with. And
6 at the moment, I don't think we're -- be -- we're --
7 I don't think we're achieving that, honestly.

8 CHAIR CONGDON: Well, Richard, I --
9 respectfully, I think -- I think we -- we have talked
10 about the standard that's in -- in place for New
11 York. And -- and I think that that's a good
12 question, though. What are other jurisdictions
13 doing? Dave Lochbaum actually looked at other
14 jurisdictions and saw a range of standards for
15 tritium.

16 I don't know, Dave, if you wanted to
17 add to this discussion at all on what you've seen in
18 other jurisdictions?

19 MR. LOCHBAUM: I looked at the --
20 worldwide. I didn't look at across the United
21 States, but looking worldwide, only the European
22 Union countries had lower drinking water standards
23 for tritium than United States.

24 Many other countries had standards
25 that were much higher than those here in the United

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2 States. The 20,000 picocuries per limit is what I'm
3 speaking to.

4 CHAIR CONGDON: Thank you. Anything
5 else, Richard, or shall I go on to Holtec's
6 presentation?

7 MR. WEBSTER: Sorry, Tom. I'm sorry
8 to hold you up. That's all.

9 CHAIR CONGDON: That's okay. Thank
10 you -- thank you. No, I appreciate your questions.

11 Rich Burroni is here, Site Vice
12 President for the Indian Point site, on behalf of
13 Holtec. We appreciate your attendance. Rich?

14 MR. BURRONI: Thanks. Is this on?

15 CHAIR CONGDON: Yeah.

16 MR. BURRONI: Like Tom said, I'm the
17 site vice president at Indian Point.

18 Next slide, please. Quickly, the
19 agenda will just compare activities that we've done
20 since the last D.O.B. meeting, which was February
21 2nd, up through what we plan to do through January
22 15th, which is the next D.O.B. meeting.

23 So I'll cover the dry fuel project.
24 We'll have a discharge discussion, vessel
25 segmentation, building demolition, N.R.C. inspections

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2 and activities, N.R.C. severity level four
3 violations, and industry safety information.

4 Next slide. So briefly on the dry
5 fuel project, the project concludes with all fuel
6 from both spent fuel pools transferred to the
7 independent spent fuel storage installation known as
8 the ISFSI pad, and the protected area fence, nuisance
9 fence, and vehicle barriers system that has to be
10 installed.

11 So the dry fuel project is projected
12 to be complete by the end of the fourth quarter of
13 this year.

14 Next slide. With regards to the ISFSI
15 pad, the -- the ISFSI pads, those are actually two
16 right now, it'll hold 127 casks. We've had this
17 discussion in our previous D.O.B. meetings. The
18 initial pad will hold 75 casks. The new pad will
19 hold 52.

20 Since the last Oversight Board
21 meeting, the vehicle barrier system installation, the
22 construction bid has been awarded and installation of
23 the support structure is in progress. And we also
24 removed the condensate storage tank. That has been
25 removed.

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2 Our projected activities through June
3 15th, we'll continue installation of the support
4 structure. And then we'll commence demolition of the
5 Energy Education Center Theatre. And I'll discuss
6 that.

7 E.E.C. and the C.S.T. demo pics,
8 there'll be in the demo section. So within the ISFSI
9 pad, there's a -- there's a building that we have to
10 put in place. We're in the process of doing that
11 construction work. That's on schedule; everything's
12 working fine.

13 Next slide. From a Unit Two, spent
14 fuel perspective, as I've told you previously, all of
15 the fuel is out of the Unit Two spent fuel pool.
16 Since the last oversight board meeting, we have
17 surveyed the fuel racks and did a visual inspection
18 and verified previous fuel moves and verified where
19 nonfuel waste cans were located.

20 And then, through June 15th, the Hi-
21 Trac with nonfuel M.P.C. will be loaded in
22 preparation to transport to the ISFSI area. That was
23 actually done today.

24 We'll transport the Hi-Storm canister
25 to the nonfuel material to the ISFSI pad, and

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2 complete the fabrication of the rack lifting device.
3 We expect a May delivery there, right, and then,
4 we'll start our rack removing from the pool. We'll
5 clean and transport the racks to W.C.S. in Andrews,
6 Texas.

7 W.C.S. is a Waste Control Specialist.
8 They're a company that we use. And to date, we've
9 transferred approximately 180,000 cubic feet of
10 waste.

11 Next slide. So when we talked about
12 the fuel racks, this was a model that was used for
13 education purposes in the back of the E.E.C.
14 building, right, so it's still there, we have to
15 remove it. But just to give you a feel for what a
16 rack looks like, there'll be 12 in total and they're
17 all similar to this picture here.

18 Next slide. So at Unit Three, we've
19 completed the assembly of the Hi-Lift lift and we'll
20 show some pictures following this. But the Hi-Lift
21 is actually a crane that'll allow us to load and
22 unload the casks to remove fuel from the pool. But
23 without this Hi-Lift lift device, it would take us 10
24 to 12 years to empty Unit Three's pool. This will
25 cut it down from now -- from May 23rd, when we start

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2 until about October 15th, timeframe.

3 So since that we've commenced the site
4 acceptance test, the N.R.C. is observing that test
5 this week and we'll probably complete it early next
6 week. We finalized procedure development on the
7 operation of the Hi-Lift, and then, projected through
8 June 15th, we'll fuel offload schedule -- scheduled
9 through October. So we'll start the fuel offload
10 process May -- May 25th.

11 So if you go to next page, top left is
12 the control station for the Hi-Lift. Bottom right is
13 the picture where the Hi-Lift crane is in its
14 maintenance position. So we'll have to change --
15 it's a series of strand jacks that'll actually lift
16 and remove the canisters themselves. Those strand
17 jacks have to be periodically inspected. So when we
18 put the HI-Lift lift in that position as shown,
19 that's call the maintenance position.

20 Next slide. So top -- top left,
21 that's the position of the crane that will lower the
22 casks to the bottom of the loading well. And then
23 bottom right is the position of the crane that will
24 lower the cask into the spent fuel pool for loading
25 purposes. And the existing crane that we use or the

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2 existing manipulator we use to load the casks that
3 will remain, right, and that will load the casks
4 themselves.

5 Discharge discussion. And before I go
6 into the slides, I appreciate, Tom, the -- your
7 upfront discussion on the 45,000 gallons that we did
8 want to take out of the pool. But I will add one
9 thing.

10 During the meeting, right, Richard
11 Webster asked me -- well, I made the comment that we
12 would start in the August-September timeframe.
13 Richard Webster asked me am I committed to that
14 schedule? Would we lock it in; right? And I said,
15 no.

16 I said, no, we won't, because there
17 may be some efficiencies that allow us to bring that
18 schedule in. That was the only reason why we wanted
19 to start a little earlier. The number two reason is
20 we have boric acid in the spent fuel pool. That
21 maintains the rods in a subcritical condition. It
22 plates out on the stainless steel liner.

23 So all we wanted to do was lower the
24 level to start cleaning the boric acid off the
25 stainless steel liner. There was no intent -- there

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2 was no intent to be -- well, I was called a bully, I
3 was called we're trying to circumvent the system.
4 There was no intent of that, right.

5 If I go back to your opening remarks
6 about safe, prompt, and thorough, that would fall
7 right into that category. And that's all -- the
8 only thing we were trying to do was to get a head
9 start on cleaning the spent fuel pool. That was the
10 only intent.

11 Enough said. Let's -- let's go to the
12 discharge discussion. Let's go to the next page. A
13 lot of this we've gone through, through various
14 discussions here. We've talked about nuclear power
15 plants discharging treated effluent. We've talked
16 about the Offsite Dose Calculation Manual. But I
17 would like to talk about who uses the Hudson River
18 for drinking water. And I -- I looked this up,
19 right, and it's called the Hudson Seven, right.

20 And it starts with -- the southernmost
21 municipality is Poughkeepsie. They use the -- the
22 Hudson for drinking water. And then, further north,
23 it's the Town and City of Poughkeepsie, it's the Town
24 of Lloyd, it's the Town of Esopus, and the Town and
25 Village of Rhinebeck, and the Town of Hyde Park,

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2 right.

3 So the southernmost municipality is
4 Poughkeepsie. Eight miles -- and I have a typo here,
5 so I apologize. Eight miles south of Poughkeepsie is
6 Roseton. And there's a control station of Roseton,
7 where we take a sample of the water, right. And the
8 samples to date verify that we're zero tritium above
9 background.

10 That sample is also split and New York
11 State also reviews that sample, right. So I just
12 wanted to make it clear that when we say there are
13 seven communities that -- seven communities that use
14 the water, that's true. That's very true. But let's
15 finish the narrative, right, and let's go through the
16 whole explanation that, right, we tested that water
17 eight miles south of it and it's free of tritium.

18 I talked about collecting samples at
19 Roseton; they're split. And then, we collect
20 effluent -- there's the other thing, too. We do
21 collect effluent samples at the exit of our discharge
22 canal, right. And that confirms our limits are not
23 exceeded. Again, a split sample is provided there,
24 right, and the State takes a split sample, right.

25 So it's not like we're operating in a

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2 vacuum, right. We give the split samples to the
3 State and they review them accordingly.

4 And then, Tom, I do appreciate what
5 you said upfront about who signed off on the joint
6 proposal. But here are some of the words out of the
7 joint proposal that I think everybody needs to be
8 aware of. It states all signatories, right, which
9 are the people that you mentioned, right, that the
10 joint proposal is consistent with sound
11 environmental, social, and economic policies of the
12 Commission and State.

13 It also states nothing in this
14 agreement shall be interpreted as prohibiting or
15 restricting Holtec from complying with any
16 requirements or orders of the N.R.C., New York State
17 D.E.C., any obligation under the Indian Point
18 license, or any other federal or state law or
19 regulation.

20 Going on further, I know we want some
21 details here. Next slide, because I don't -- I'm
22 sorry. Okay. So approximately 1.3 to 1.5 million
23 gallons remain from the spent fuel pools, refueling
24 water storage tank, and the reactor cavity, the steam
25 generators, waste collection tanks, hold-up tanks.

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2 We need to process and discharge those through our
3 liquid waste processing system.

4 CHAIR CONGDON: Rich, can I just pause
5 for a second? At the public statement hearing on
6 Tuesday --.

7 MR. BURRONI: I'm sorry. Repeat that?

8 CHAIR CONGDON: At the public
9 statement hearing on Tuesday, there was a comment by
10 one of the members of the public that said people are
11 saying it's only a million gallons, what happened,
12 you know, how do we know it won't turn into 40
13 million gallons, I think was the comment.

14 Do you want to talk to the finite
15 amount of water left on site?

16 MR. BURRONI: Sure.

17 CHAIR CONGDON: Is there more water
18 being produced? Is there a possibility of
19 increasing? So just on this point, I didn't want to
20 lose it. Go ahead.

21 MR. BURRONI: Right. So there's been
22 a lot of numbers floating around, right. I saw a
23 number about 500,000 gallons. The 45,000 gallons was
24 -- was what we wanted to take out of the pool. So
25 that number is legit, right.

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2 But the 1.3 or the 1.3 to 1.5, 1.34
3 million, right, is really the R.W.S.T. in Unit Two.
4 That's the refueling water storage tank. And what
5 that will do is that'll be used to flood the reactor
6 cavity at Unit Two when we do vessel segmentation
7 there.

8 The reactor cavity at Unit Three is
9 already flooded from the R.W.S.T. So those are two
10 360,000-gallon sources, right, that are in -- that
11 are at the site. And then, the spent fuel pools each
12 have 310,000 gallons, right.

13 So if you look at that, right, it's
14 1.34 million. There's about another 100,000 from
15 decontamination drains, equipment drains, chemical
16 lab drains, and flood drains, right. So when you add
17 it all up, there's about another 100,000, right. And
18 that's what we have left.

19 So actually, it's 1.45 million
20 gallons. I rounded it up to 1.5.

21 CHAIR CONGDON: Thank you for
22 clarifying.

23 MR. BURRONI: You're welcome. Right.
24 Each batch release when we do a batch release -- did
25 I make some -- did I say something?

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2 MR. SIPOS: No -- no; it's fine. I'm
3 sorry, Rich.

4 MR. BURRONI: Each batch release is
5 18,000 gallons. We sample each prior to release and
6 release permit is required prior to release. So
7 batch releases from the four major sources, that's
8 our tentative -- that's our -- that's our schedule
9 right now.

10 Unit Two spent fuel pools in September
11 this year. Unit Three spent fuel pool is June of
12 2024. Unit Three reactor cavity is April of 2024.
13 And the Unit Two reactor cavity is August of 2025.

14 So upfront you see the R.W.S.T., so
15 that's already been -- in 2025 timeframe, that's when
16 it's in the reactor cavity for vessel segmentation.
17 So I know it's -- I know I have two different
18 sources, but it's really one source.

19 When I -- when we look at some of the
20 data, the remaining volume to be processed and
21 released is estimated to be no more than five percent
22 of the total volume released from Indian Point
23 between 2010 and 2021.

24 This is the most recent data.
25 Obviously, this number is much further reduced if we

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2 go back to 1962, when Unit One went first into
3 operation. There is less than 400 curies of tritium,
4 which remains with the sources noted above.

5 I need a fission process to generate
6 tritium, right? No more fission process, right.

7 CHAIR CONGDON: In other words, the
8 plant is not operating, there's no further tritium
9 being created?

10 MR. BURRONI: No further generation of
11 it.

12 CHAIR CONGDON: Right.

13 MR. BURRONI: This is 400 curies left.
14 So look at this, though, too. With the plant in
15 operation, right, 1,200 curies per year were
16 generated. At 1,200 curies per year, the dose to the
17 public was approximately one percent of the N.R.C.
18 limits.

19 The 400 curies left are going to be
20 discharged over a period of years. And again, our
21 ALARA program drives us to be approximately one
22 percent of what the N.R.C. values are. So one
23 percent of three millirem.

24 So next page, right. So the current -
25 - our current position is this, right. We looked at

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2 Dave Lochbaum's slides, discussed them 2/2.

3 Discharge to the river poses the least public risk.

4 When we look at independence, right,
5 independence, we have independent labs that look at
6 our releases and they look at -- and they look at our
7 samples. That includes Life Sciences, Teledyne, and
8 Eckert's and Jaeger. Those are independent labs that
9 look at our data.

10 We did have meeting. I thought was a
11 very constructive meeting with Alex and Kelly, and a
12 host of others, where we talked about enhancing split
13 sampling. And basically, it's a chain of custody
14 thing, right. If you -- if you don't trust us that
15 we're giving you the right water to sample, then come
16 on in and take your own samples, right. And that's
17 what we're kind of look -- looking forward to that.

18 I think Kelly wants us to look at
19 additional chemicals in the -- from the SPDES
20 perspective. We'll do that. And there's more to
21 follow, we just have to sit down again and go over
22 some more of the details.

23 Okay. Important point here, too, is
24 past history because we always say, well, we never
25 discharged a spent fuel pool. But we did. We

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2 discharged Unit One's spent fuel pool. That was in
3 2008. Those radionuclides included cobalt-60,
4 cesium-137, tritium, strontium-90, and nickel-63.

5 So the radionuclides are essentially
6 the same in Unit Two and Unit Three spent fuel pools,
7 essentially the same. So the total -- total whole-
8 body dose from liquid effluents in 2008, from IPEC
9 was much less than the one percent of the allowable
10 three millirem limit.

11 So here's the point I'm trying to
12 make. We've already done a spent fuel pool, right.
13 We've already met or exceeded the limits that the
14 N.R.C. gives us. Granted, there's some dilution
15 issues here that we have to work into. I get that,
16 right. But we, still, with the spent fuel pool that
17 we did discharge in 2008, we met all the
18 requirements. We beat all the requirements.

19 CHAIR CONGDON: Rich, you're saying
20 there are a number of other radionuclides. We're
21 talking -- that's pre-treatment?

22 MR. BURRONI: Yes.

23 CHAIR CONGDON: Pre-filtration.

24 MR. BURRONI: Yes, but they get
25 stripped down. For the most part --.

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2 CHAIR CONGDON: So the cesium,
3 tritium, strontium, nickel, that did not enter that
4 river?

5 MR. BURRONI: That's correct.

6 CHAIR CONGDON: That was in the spent
7 fuel pool>

8 MR. BURRONI: Correct.

9 CHAIR CONGDON: But then you filtered
10 it out?

11 MR. BURRONI: Correct.

12 CHAIR CONGDON: And you were left with
13 just tritiated water?

14 MR. BURRONI: Correct.

15 CHAIR CONGDON: Okay.

16 MR. BURRONI: That's all I have for
17 discharge. For vessel segmentation, we had to
18 transfer the Unit Three head to the Unit Two
19 containment building for space purposes. We
20 disassembled that head and we've shipped it out to
21 W.C.S. So eight waste boxes were loaded. They're
22 ready for shipment.

23 And then, for Unit Two, we're prepping
24 the inlet and outlet piping of the steam generators
25 to split chemical cleaning. So that's a new

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2 initiative that Holtec has taken on.

3 We want to chemically clean the tubes
4 of the steam generator, so that we can appropriately
5 ship them to W.C.S. for waste disposal, right. So
6 it's a new technique that we're trying with a company
7 called Perma-Fix.

8 We're pretty happy about that. It's
9 taken some modifications at the plant to do such
10 thing, right, but that's in progress and it's working
11 out well.

12 So the next slide just shows how we
13 cut or disassembled the Unit Three reactor head in
14 the Unit Two containment building.

15 We needed the space. So you can see
16 where it's cut, and then, to the right, the picture
17 on the right just shows how it's loaded in one of the
18 containers.

19 For the segmentation --.

20 CHAIR CONGDON: Can I pause there
21 another second? The segmentation?

22 MR. BURRONI: Sorry.

23 CHAIR CONGDON: These pictures, that
24 was hot? It had radiological contamination?

25 MR. BURRONI: It -- the reactor head,

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2 yes, it has --.

3 CHAIR CONGDON: Right?

4 MR. BURRONI: Yes, but that was in a
5 tent, right. It was in a tent that was ventilated
6 through HEPA filters, right. And the workers were
7 well protected.

8 CHAIR CONGDON: That happened under
9 the dome, that work?

10 MR. BURRONI: Happened under a tent in
11 the containment building.

12 CHAIR CONGDON: Correct, under --
13 correct, in the containment.

14 MR. BURRONI: Dome, that's what you
15 call -- okay, yeah.

16 CHAIR CONGDON: Yeah, yeah. And under
17 the containment dome?

18 MR. BURRONI: Yes.

19 CHAIR CONGDON: Okay. But my next
20 question, when you say it's getting put into the
21 material, that's for shipping out to --?

22 MR. BURRONI: W.C.S.

23 CHAIR CONGDON: Right. So that's
24 going to end up on a train and go across the country?

25 MR. BURRONI: Probably. I'd have to

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2 get back to you on that. We do have a rail spur in
3 Newton, Connecticut.

4 CHAIR CONGDON: Right.

5 MR. BURRONI: Where we do road to
6 rail, right, and then, we'll put two or three or four
7 of the containers on a flat -- on a rail car and ship
8 it down to Texas.

9 CHAIR CONGDON: Okay. Thank you.

10 MR. BURRONI: Okay. So for Unit
11 Three, we've completed segmentation of the upper
12 reactor vessel internal guide tubes and support
13 columns. I showed pictures of that last February.
14 And then, we've commenced cutting the upper support
15 plate.

16 There are 16 segmented cuts that are
17 required. We've cut up to 10 right now, 8 was a
18 couple of days ago. So we're doing pretty well
19 there.

20 Through June 15th, we will complete
21 segmentation of the reactor vessel internal upper
22 support plate and then we'll go into the lower
23 support plate.

24 New one here is Unit One update. We
25 need to remove a section of the Unit One reactor head

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2 to characterize the vessel itself, just to find out
3 what level of dose that we have. Either it's Alpha,
4 or Bravo, Charlie. So we're doing that. We're going
5 to start that disassembly or that cut through the
6 reactor head next week.

7 And then, if you go to the next slide,
8 you'll see how we're doing some of this. This is all
9 underwater. All right. It's basically a saw blade
10 that's 72 inches in diameter, right, and it cuts
11 through the steel pretty well. Even the chips that
12 we need to collect are vacuumed. And they'll go into
13 a waste container also. And so it's pretty
14 interesting stuff. If anybody wants to come and see
15 it, feel free to let me know and I will show you.

16 All right. Building demolition,
17 another topic. Tom, I know you'd like this one.

18 All right. So since last meeting, we
19 have completed demolition activities on the
20 condensate storage tank, right. We started
21 demolition on the steam generator steam domes. So
22 I'll show you some pictures there. And we're working
23 on retiring and removing internal oil tanks from both
24 Units Two and Three. And those are just oil tanks
25 that supported plant operation.

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2 Through June 15th, we'll complete the
3 steam dome demo. We'll start demolition in the -- in
4 the gas turbine 2/3 yard, which is across the street.
5 We'll start demolition of the Energy Education
6 Center, the concrete structure, because actually
7 underneath that was a -- was a theater that was used
8 as part of the Energy Education Center. But we need
9 to remove that section for the phase four vehicle
10 barrier system that's needed. And that's what I
11 talked about previously.

12 That's going to -- that wall's going
13 to go through there, right, so that we have the
14 protected area needed for the casks. And then, we'll
15 continue working on retiring and removing the
16 internal oil tanks.

17 All right. So the C.S.T. demolition
18 here so this is a tank, right, you could see, it's
19 all steel. All right. It was cut in sections, it
20 was collapsed, right, and it was shipped out.

21 And then, if you go to page 25 -- or
22 slide 25, you could see the final end product of
23 where the C.S.T. was, right, and what it -- and the
24 area that we have now, right. And we'll use that
25 area to store some of the casks themselves.

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2 CHAIR CONGDON: Can you go back a
3 slide?

4 MR. BURRONI: Sure.

5 CHAIR CONGDON: I think -- back a
6 slide. I want to emphasize that bottom note on the
7 enforcement permit conditions.

8 MR. BURRONI: Yes, thank you very
9 much. So we've --.

10 CHAIR CONGDON: I want to hear you say
11 it.

12 MR. BURRONI: So we did work with the
13 D.E.C. and the village, right, on the building demo
14 permit, right. And so we guarantee what a building -
15 - building demo permit does not allow us to generate
16 dust beyond the site boundary, right, does not allow
17 that.

18 If that were to happen, we would cease
19 and desist operation and go back and figure out
20 what's going on, right. But right now, we would not
21 generate any dust past the site boundary.

22 Thanks for bringing that up. I
23 apologize.

24 I think Kelly's group did a good job
25 with Holtec and the village, the village building

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2 inspector. And that came out very well.

3 CHAIR CONGDON: Thank you.

4 MR. BURRONI: When I talked about
5 steam dome demolition, these are actually the tops of
6 the steam generators when the plant was in operation.
7 So it's a pressurized water reactor, right. In other
8 words, these steam domes, or the tops of the steam
9 generators are clean steel, right.

10 So it's allowed to -- we were allowed
11 to take it out of containment, we're cutting it up,
12 and going to ship the pieces for the scrap down
13 county, right. So we're in the process of doing
14 that. It's working out pretty well right now.

15 This is the G.T. substation that's
16 across the street. We're going to start dismantling
17 the gas turbines within there, right, and then, this
18 whole facility will be taken down.

19 This is the -- next please. This is
20 the concrete structure I'm talking about. It's --
21 it's -- it's outside of any protect -- it's outside
22 of our protected area. There is an absolutely no
23 radionuclides within this building at all. All
24 right. What we need to do is first separate it from
25 the glass building. You guys -- everybody here, just

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2 about, has taken a tour, right.

3 We'll separate it or gap it from the
4 glass building, itself, and then, just -- just take
5 it down. All right. And again, so we'll be,
6 obviously, watching dust here. And the -- the -- the
7 normal protocols for water, they'll use water sprays,
8 right, just to cut down the dust, right. And that
9 issue -- it won't be an issue.

10 CHAIR CONGDON: And Cliff will be
11 onsite.

12 MR. BURRONI: Sorry?

13 CHAIR CONGDON: Cliff will be onsite.

14 MR. BURRONI: I'm sure he will be.

15 All right. Here's a short- and long-
16 term planning. And what I really wanted to get
17 across here was a couple of things. One, in 2024,
18 that is our projection of what we're going to demo,
19 right. So when you see O.S.B. is the outage support
20 building, the Unit Three E.D.G., or emergency diesel
21 generator building, we'll actually be taking the
22 content and the underground storage tanks out, not
23 any of the structure itself.

24 The P.C.I. building, which was used to
25 control the circulating water pumps at Unit Three,

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2 that's a -- that's a steel building. The circ pump
3 building -- circulating pump building, Unit Three,
4 again, another steel building.

5 The polisher building, the same thing.
6 The security building, or the little security
7 facility that we used back in Unit Three, right, so a
8 little concrete structure, it's right by the river
9 front, right. And then the Unit One screen well
10 house, that also is cement -- I'm sorry -- brick and
11 cement. And that's on the river. Right, so that's
12 our projection for 2024.

13 CHAIR CONGDON: I just want to pause
14 and emphasize how we characterize these buildings.
15 That was a helpful description. We took this list of
16 buildings and also analyzed it on our team for our
17 staff to confirm. None of this is what we've been
18 considering the heavy demolition.

19 MR. BURRONI: Correct.

20 CHAIR CONGDON: Right. The thick
21 concrete walls, the containment structures.

22 MR. BURRONI: Correct.

23 CHAIR CONGDON: And I want to just
24 stress that point to the audience because that has
25 been one of the major issues of concern, that that

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2 heavy demolition would start before our community air
3 monitoring plan is up and running, before Dr. Lauro
4 is able to get his contractor, get into the B.V.
5 School and do the environmental assessment baseline
6 work.

7 So I'm just really wanting to
8 emphasize and confirm and hear you say no heavy
9 demolition work will commence at all in 2024.

10 MR. BURRONI: That's correct.

11 CHAIR CONGDON: Thank you.

12 MR. BURRONI: Correct. Now --

13 CHAIR CONGDON: That's correct.

14 MR. BURRONI: -- the remaining issues,
15 these major buildings I listed, Unit One, Two, and
16 Three, right, we've been saying all along that the
17 domes will take 10 to 12 years to take down. And I
18 just wanted to emphasize that.

19 That's really the gist of the three
20 units that you see there and the buildings we're
21 taking down. I think we do have a waterfall chart
22 that we talk about on a monthly basis. Admittedly,
23 we have to get that corrected, right, so it properly
24 reflects the heavy demolition, right. But what I --
25 what I really wanted to emphasize here was that --

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2 and we've said this all along, 10 to 12 years is when
3 we'll start looking at the domes -- concrete domes.

4 CHAIR CONGDON: You're not -- be
5 careful with your words, right. You're not starting
6 to look at it in 10 to 12 years. Ten to twelve years
7 is how long it's going to take because you're not
8 using --

9 MR. BURRONI: Is when it will start --
10 .

11 CHAIR CONGDON: -- using explosives
12 and imploding it. It's not a -- it's not -- it's not
13 something is just going to happen.

14 MR. BURRONI: No.

15 CHAIR CONGDON: So 10 to 12 years to
16 surgically dismantle these structures?

17 MR. BURRONI: Correct.

18 CHAIR CONGDON: ... before it even
19 starts?

20 MR. BURRONI: At ten to -- after 10 to
21 12-year period is when we will start the demolition
22 process.

23 CHAIR CONGDON: And what happens in
24 those 10 to 12 years?

25 MR. BURRONI: We'll strip out the

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2 building. We still need to --.

3 CHAIR CONGDON: So all the inside
4 work?

5 MR. BURRONI: Yes.

6 CHAIR CONGDON: Dismantling from the
7 inside out?

8 MR. BURRONI: That's correct, right.
9 We're doing the vessel segmentation, right, that's
10 all part of inside the containment domes.

11 CHAIR CONGDON: Right.

12 MR. BURRONI: All right. Now, the
13 other thing, too, is we were very successful using a
14 diamond wire cutting. It was -- was water
15 impregnated to increase the size of the equipment
16 hatch. I showed everybody that, right.

17 There's a potential we can even use
18 that methodology to take the cement down from the
19 building. I'll tell you another thing. The cement
20 that we've taken out so far is free releasable.

21 CHAIR CONGDON: Right. When you
22 created the hatches.

23 MR. BURRONI: Correct. Right. That
24 cement is free releasable. In other words, we can
25 even crush it right now and use it for landfill,

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2 right, and that's what we kind of plan to do, right.
3 So we project that the rest of the containment dome
4 will be in the same condition, right.

5 So it's a dust piece, we get it,
6 right, we'll wet it down. We'll do whatever we need
7 to do. And if we can use the diamond wire cutting
8 technique, we will, right. But the -- the emphasis
9 here I also want to make is that, from what we see
10 right now, right, it'll be free released.

11 CHAIR CONGDON: I believe Dave
12 Lochbaum has a question on this. Dave?

13 MR. LOCHBAUM: Well, Rich, when I was
14 -- when you gave me the tour of the site, last July,
15 I think you mentioned that the American Nuclear
16 Insurers had been in the previous week or recently to
17 look over your shoulders. Has A.N.I. continued to be
18 a monitor or somebody looking over your shoulder to
19 see how things progress?

20 MR. BURRONI: Yeah, absolutely.
21 During our monthly project status meetings, A.N.I. is
22 on the call. So they look at what we do on a monthly
23 basis. And we have those -- that slide deck that
24 they review. And then, they're -- they're afforded
25 to comment on that slide deck.

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2 They will -- they're also -- they're
3 also scheduled to come to the site. I can get back
4 to you on the date. I just don't know the exact date
5 when they're going to come and do an inspection. But
6 they are scheduled to come. Let me get back to you
7 on the date.

8 MR. LOCHBAUM: Okay. Thank you.

9 MR. BURRONI: But answering Dave's
10 question, we still -- we still have A.N.I. on board.

11 All right. N.R.C. inspections and
12 activities, not a lot has changed much. You talked
13 about, Tom, upfront, about the -- just the Code of
14 Federal Regulations really doesn't fit sometimes with
15 the decommissioning process.

16 And that's why we submit license
17 amendment requests to -- to comply with what we need
18 to do from a decommissioning perspective. So we're
19 still waiting for the N.R.C. review and approval of
20 the Permanently Defueled Emergency Plan. That's the
21 PDEP, right.

22 What I want to emphasize there is one
23 thing, right. After August 1st, right, there is not
24 enough fuel -- or not enough energy in any of the
25 fuel in the pools that would force us to do an

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2 evacuation or shelter in place for an emergency plan,
3 right.

4 So we're still waiting for the N.R.C.
5 to approve our L.A.R.

6 Granted -- granted, we didn't have an
7 L.A.R. submitted to -- to get the August 1st approval
8 timeframe. We did submit it later the previous year.
9 But we did expect to have it at the end of last year,
10 right. So we're still waiting for that. But I just
11 want to emphasize to the public that from an
12 emergency plan perspective, we would -- we're at a --
13 we're at a point, the energy in the fuel, where we
14 would not evacuate or we would not shelter in place.

15 Our emergency plan wouldn't drive us
16 there. That's my point. Sorry?

17 CHAIR CONGDON: So Rich, please
18 continue.

19 MR. BURRONI: Okay. That's the rest
20 of the -- the L.A.R.s that we're waiting for. The
21 last three would be ISFSI-only license. That's when
22 all the fuel is out and it's all on the pad. So
23 we're waiting -- that, I can understand we don't have
24 yet but the top four or five -- the top four, we're
25 still waiting for the N.R.C. to approve.

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2 On the bottom is the N.R.C.
3 inspections that are done. We could see from March,
4 we had one. April -- yes, so April, and then, right
5 now the N.R.C. is on site doing a HI-Lift acceptance
6 testing. And then, in May, we'll do a P.I. and R,
7 problem identification and risk assessment, right.
8 So the N.R.C. is actively doing their investigations
9 and assessments.

10 We -- unfortunately, we did have two
11 violations from the last quarter -- from the last
12 quarter. All right. One of them had to do with a
13 tank that was leaking. In a nutshell --.

14 CHAIR CONGDON: What was leaking?

15 MR. BURRONI: There was -- it wasn't
16 leaking. Well it was -- it was -- so it's a tank, it
17 was a waste holding tank, right, that we had
18 defective level transmitter on it. And so what
19 happened was the effluent that was going into the
20 tank, because the level transmitter was defective,
21 leaked onto the floor.

22 Leaked onto the floor and it went to
23 an adjacent room where there's a sump pump. And that
24 sump pump was designed to get the effluent and pump
25 it back to the tank. So it was rotating in and out.

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2 N.R.C. believed -- so what we needed to do was take a
3 survey, right.

4 N.R.C. -- we took the survey in the
5 adjacent pump room, right. N.R.C. believes by -- by
6 regulation, that we should have taken the survey in
7 the tank room, itself. And we did not do that. So
8 that was the source of the violation.

9 CHAIR CONGDON: So the survey is meant
10 to measure the radioactivity left behind by the -- by
11 the overflow?

12 MR. BURRONI: Right.

13 CHAIR CONGDON: Correct.

14 MR. BURRONI: So our position, right,
15 that -- well, in this case, it wasn't. Our position
16 was the effluent that you saw in the adjacent room
17 was just as good as the effluent that was in the pump
18 room.

19 CHAIR CONGDON: Okay. And was the
20 source -- was the source of the overflow from the
21 pump room?

22 MR. BURRONI: No.

23 CHAIR CONGDON: The closest place to
24 the discharge was the pump room?

25 MR. BURRONI: Say that again?

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2 CHAIR CONGDON: The water that
3 overflowed --

4 MR. BURRONI: Yeah.

5 CHAIR CONGDON: -- where did it go
6 first?

7 MR. BURRONI: It overflowed on the
8 floor of the pump room.

9 CHAIR CONGDON: Right.

10 MR. BURRONI: Of the tank, I'm sorry,
11 then migrated through the floor to the pump room.

12 CHAIR CONGDON: Okay.

13 MR. BURRONI: Right, which is an
14 adjacent room. In fact, I put a little sketch there.
15 The little sketch is on page 35, slide 35. It's up
16 there now.

17 The other thing, too, is we had
18 declared that the tank was a high-rad area. So from
19 a dose perspective, my R.P. people believed that the
20 sample and the survey they took in the adjacent room
21 was as good as the sample and survey in the tank
22 room.

23 N.R.C. disagreed. We accepted the
24 disagreement and they wrote the violation. However,
25 it's important to note that when you read the

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2 violation, right, the N.R.C. issued a -- and this is
3 on page 34. It says, the N.R.C. issued a severity
4 level four non-cited violation, noted to be a
5 relatively inappreciable potential safety
6 consequence.

7 The other thing I think we need to
8 stress is that none of this leakage left the
9 building, right. And then for some reason, my
10 understanding was, when this report got issued,
11 right, it leaked to the public, people thought that
12 we leaked effluent outside the building.

13 And unfortunately, from what I
14 understand, 16 families took their kids out of the
15 B.V. school. That's shameful to me, right.
16 Obviously, we shouldn't have had the violation, but
17 at the same token, if we want to characterize this to
18 the public, we need to characterize it correctly.
19 And there was no leakage outside the building. And
20 that was confirmed with our ground monitoring system.

21 Next slide talks about another
22 violation we had, really had to do with our fire
23 protection system.

24 MR. KACZMAREK: Rich, can you -- can
25 you just confirm which next slide you're referring?

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2 MR. BURRONI: I'm sorry; who's
3 talking?

4 MR. KACZMAREK: Tom K. Over there.

5 MR. BURRONI: Oh, I'm sorry, Tom.
6 Thank you. I'm on slide 36.

7 And really what happened is we failed
8 -- we failed to perform an underground fire loop flow
9 test. Really what happened was we had a material
10 condition on -- in the system that prevented us from
11 finishing the procedure.

12 What we should have done at that time
13 was enter the incomplete test in our corrective
14 action program. And we didn't do that. Human
15 performance error, we talked to the guys. They
16 understand the mistake. However, at all times, we
17 did have contingency measures in place that if there
18 were a fire in another location, we would be okay.

19 We also corrected the pipe. And
20 again, if you look at the words on page 37, the
21 N.R.C. position was, again, evaluated as a severity
22 level four non-cited violation. And again, we talk
23 about inappreciable potential safety consequence.

24 This one was all on us. This one, we
25 should have written the -- the condition report once

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2 we didn't finish the test, right And that was a
3 human performance error, like I said, and then we
4 talked to the individuals.

5 Last, but not least, is our safety
6 slide. We go over this, this safety triangle on a --
7 on a monthly basis, with New York State
8 representatives, the N.R.C., Westchester County,
9 A.N.I., a host of people, right.

10 So unfortunately, on the 28th of
11 March, a supplemental worker's finger did get pinched
12 while securing a fuel cask to our vertical cask
13 transporter. It was a lost time OSHA. I'm pretty
14 sure we classified that as a personal error. He
15 didn't follow his procedures, right. So we coached
16 the individual.

17 Then on April 5th, a supplemental
18 worker damaged the roll-up door by striking it with a
19 mobile lift vehicle. That was classified as a
20 vehicle accident. We had a thorough discussion on
21 that today.

22 Again, a personal error, the roll-up
23 door wasn't fully in the upright position, so we're
24 working on some of that, too, and as the reason as to
25 why I was in it -- why wasn't it all the way up.

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2 And then, on the 11th, a supplemental
3 employee got dust -- dust in his eye even though he
4 was wearing the P.P.E., but he had a half face
5 respirator. So when he had the half face respirator
6 pushed up the goggles on him, and he got some dust in
7 his eye from the activity he was doing. So we're
8 looking at a different set of goggles to use when you
9 have a half face respirator -- half face respirator.
10 And so that was the last injury issue.

11 If you look at the bottom of the
12 triangle, talks about dose. So year to date, it's
13 23.29 rem to the -- to the team with a goal of 52.7
14 rem. And this is dose to the general public within
15 the plant. These are dose to plant workers, right.

16 And then an I.P. three year to date,
17 it's 9.7 rem with a goal of 54. We had zero P.C.E.s,
18 Personal Contamination Events. We've had zero this
19 year.

20 That concludes my presentation.

21 CHAIR CONGDON: Thank you, Rich.

22 So -- so before I turn to the D.O.B.
23 members, if they have any questions for Rich, I want
24 to do a time check. We are late. We're running late
25 by 23 minutes. We want to get to as many speakers as

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2 we can in the public statement hearing portion, which
3 will be next.

4 So I ask that the D.O.B. members keep
5 that in mind if they have questions, make them quick
6 for Rich. Any questions?

7 SENATOR HARCKHAM: Yeah.

8 CHAIR CONGDON: Yes, Senator.

9 SENATOR HARCKHAM: Thank you. Thank
10 you. I promise I'll be -- I'll be very quick. Rich,
11 thank you for your presentation. You know, these are
12 -- these are very helpful. You know, because it's a
13 mystery to people what goes on inside the plant
14 behind the -- the fence. So I -- I thank you.

15 I -- I also want to thank you for --
16 for putting the -- the August discharge on pause.
17 You know, you -- you get a lot of slings and arrows
18 here. And so you should -- you should hear thank you
19 when you do the right thing. You know, I -- we need
20 a lot more discussion, as -- as was mentioned, but I
21 -- I think this -- this is a good opportunity for
22 everybody.

23 Before I ask my question, though, in
24 the spirit of slings and arrows, I -- I want to say,
25 you know, it's not helpful to the process when I get

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2 calls from labor leaders who I've worked with for
3 many, many years, saying, Pete, Holtec's telling us
4 if you don't stop talking about the water, they're
5 going to have to lay us all off. It's -- it's just
6 not helpful.

7 Okay. I'm not saying you said that.
8 Okay. But I've gotten calls from two different labor
9 leaders, people I've known for years. And -- and
10 when we do all this work, it -- there are a lot of
11 things we balance. It's -- it's the economic
12 vitality of the municipalities in the school
13 district, it's labor, it's the safety of the
14 community, it's the safety of the environment. It's
15 the timely -- it's all of these things.

16 And just because we're having a
17 discussion, and a difficult discussion admittedly,
18 you know, I hope we don't have to go to those places
19 that are not ... So enough said.

20 Question for you if -- if I may.

21 CHAIR CONGDON: I thought that was the
22 question.

23 SENATOR HARCKHAM: No -- no. That --
24 that was the sling and the arrow. The -- the -- the
25 question, the hypothetical question, all right, and -

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2 - and I'm -- I'm still not there on the discharge,
3 but let me ask you a hypothetical question. We've
4 got September, June, April, and August are the
5 months. Three of those four months are very active
6 river use months, and April, maybe a little bit.

7 So let's just say, in a hypothetical
8 situation, we go to a discharge. Is there a way you
9 could do it in winter months when people aren't using
10 the river, whether it's for health or the
11 psychological impact? And one -- so one, could you
12 do it in winter months when the river is not being
13 used? And two, is there a way, because as Dr. Becker
14 said, it's an estuary, it's a tidal basin, it flows
15 both ways, can you do it at a time when the tide is
16 flowing out, as opposed to flowing up towards Albany?
17 So two questions. I'm sorry.

18 MR. BURRONI: The first question, I --
19 I cannot commit to only doing discharges in the off-
20 season. Environmentally, to me -- I mean,
21 environmentally, I'll check, but it really makes no
22 difference. What we discharge to the river is what
23 we discharge to the river. It's going to be less
24 than or equal to one percent of what the N.R.C. tells
25 us.

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2 I'll evaluate it, but we have to also
3 look at how that fits our schedule going forward. So
4 thank you for the feedback. I'll evaluate it. Let's
5 see what we do.

6 SENATOR HARCKHAM: And the other
7 question was about the tide, whether it's warm
8 weather, cold weather, whatever the season. Is there
9 a difference between whether the tide is flowing up
10 towards Albany or whether the tide is flowing out
11 towards the Atlantic?

12 MR. BURRONI: I -- I'll -- I'll give
13 you the same answer. We'll -- thanks for the
14 feedback. I'll evaluate that.

15 CHAIR CONGDON: Maybe I can just add a
16 follow-on question. How long does it take for an
17 18,000-gallon batch to be released?

18 MR. BURRONI: About 150 G.P.M. from
19 the tank itself, I'll do a math real quick. 150 into
20 18,000 is what? Hold on.

21 CHAIR CONGDON: Okay. Just wondering
22 whether it would be within the tidal cycles, why I
23 ask, but while you're calculating --

24 ASSEMBLYWOMAN LEVENBERG: Yes.

25 CHAIR CONGDON: Assemblywoman

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2 Levenberg?

3 ASSEMBLYWOMAN LEVENBERG: Thank you.
4 We can follow up, I mean, and I was also going to ask
5 that same exact question. And I understand you don't
6 want to wait, but besides the fact that, you know
7 that, which I don't know that prompt has actually
8 ever been defined, but you know that you want to do
9 everything promptly, what -- why couldn't you wait, I
10 guess, is the question?

11 And also, you know, again, I think
12 that Senator pointed out that some of this is
13 psychological, but also doesn't it take time for the
14 water, for the -- whatever's in the water to -- to
15 actually dissipate? I mean, it's moving around.

16 So theoretically if it has this, you
17 know, low impact, part of that is that, you know,
18 when you put things into water that they're going to
19 move around and have less of an impact. So as this
20 is moving around -- moving around close to the site
21 and you have people using water close to the site, it
22 seems like whatever is there has more of an impact
23 locally than it would over time.

24 So if you were to put it in there
25 during the season when people are using the river,

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2 actively using the river, actively swimming, actively
3 boating, et cetera, actively fishing, it seems less
4 good than if you were to do it after the season.

5 MR. BURRONI: Let me ask you. Since
6 1962 up until today, right, I'm sure in the
7 summertime, people have swam in the river, crabbed in
8 the river, fished in the river. So there's --
9 there's no difference. To me, there's -- there's --
10 there's no -- I know. I understand the perception.
11 I do, right.

12 But when I look at the science and I
13 look at the data, there's absolutely no difference
14 from 1962 right to today. I'll think about what
15 you're saying and we'll evaluate it.

16 CHAIR CONGDON: There is another
17 meeting in June, before September. There's a meeting
18 in June that happens before September. I think we
19 can continue the discussion.

20 MR. BURRONI: All right.

21 CHAIR CONGDON: And by the way, one of
22 the things that I said to -- to -- to Holtec, when
23 you paused the May discharge, is that, please don't
24 consider this the only venue that you interact with
25 all of the elected officials that represent the host

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2 community. Please be meeting with them on a regular
3 basis between D.O.B. meetings and having these
4 conversations.

5 MR. BURRONI: I get you. And I think
6 Mayor Knickerbocker sent me an email just the other
7 day, asking if we could resurrect what Entergy used
8 to do. And they used to meet quarterly, I think.

9 MS. KNICKERBOCKER: Quarterly when
10 necessary, they were called stakeholder meetings.

11 MR. BURRONI: Right. So --.

12 MS. KNICKERBOCKER: And they were very
13 informative for the elected officials.

14 MR. BURRONI: So I have no problem
15 doing that. We can go through all the information
16 and data.

17 CHAIR CONGDON: Any other questions
18 for Rich? Yes. Catherine Borgia?

19 MS. BORGIA: Very -- very quickly
20 because I want to hear them from the public
21 definitely. So I -- on page 13, when you talked
22 about the collected samples, you mentioned what the
23 Department of Health does with -- with the -- the
24 sample that they get. What -- what does the D.E.C.
25 check for?

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2 MR. BURRONI: Excuse me?

3 MS. BORGIA: On page 13 --

4 MR. BURRONI: Yeah.

5 MS. BORGIA: -- you said it was about
6 the -- the -- the water samples. In your slide, it
7 says also split with the -- with the state.
8 Department of Health Lab does an analysis of the
9 water to assess our accuracy, but you didn't say what
10 the D.E.C. looks for?

11 MR. BURRONI: So they look at
12 radionuclides which would include tritium.

13 MS. BORGIA: Okay. And then I guess
14 my next question is -- my last question is when we
15 discussed some of the other options besides the
16 release into the river, one of the things that was
17 mentioned was the onsite pool at -- that would hold
18 the water for some -- for 12 years or some multiple
19 of 12 years.

20 When that was said at the beginning of
21 this meeting, I thought to myself, oh, that probably
22 isn't something that the company is willing to do
23 because they want to be out of there by the 12 years.
24 But if -- if the actual demolition of the buildings
25 is going to be on a 10-plus year cycle, I -- I'm

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2 wondering why the notion of doing the water -- having
3 the water go through one half life is so farfetched
4 and out of the realm of the possibility, since you'll
5 be on the site still for 10 years -- 10-plus years,
6 considering the demolition of the buildings will take
7 that 10 years that we -- that we just talked about.

8 MR. BURRONI: I -- I -- I understand.
9 Thank you. It's really that 10- to 12-year
10 timeframe, we're really shooting or we're really
11 looking at the containment dome buildings. Prior to
12 that, we would hit the fuel storage building, the
13 primary auxiliary building, the radionuclide type
14 buildings.

15 MS. BORGIA: Right. Understood.
16 Understood. But that's not my question.

17 MR. BURRONI: But that's prior to the
18 10 to 12 years.

19 MS. BORGIA: My question is, if you
20 have to be on the site for that long anyway, why was
21 notion of -- of holding the water for the first 12-
22 year half cycle so impossible and farfetched?
23 Because there was an idea that, on another piece of
24 the property, there could be another holding tank for
25 the water to go through that one -- that one 12-year

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2 --

3 MR. BURRONI: Uh-huh.

4 MS. BORGIA: -- half-life.

5 MR. BURRONI: Uh-huh.

6 MS. BORGIA: Why was that completely
7 rejected out of hand since you will have to -- since
8 the company's involvement on the decommissioning is
9 going to be at least or very close to that 12 years?

10 MR. BURRONI: Right.

11 MS. BORGIA: So why was that rejected
12 out of hand?

13 MR. BURRONI: So you have to
14 understand how the buildings are constructed. The
15 fuel storage building, right, is totally different
16 than the containment building, right. I can't wait
17 12 years, right, for the water in the spent fuel
18 pool, right. Let me finish. Right?

19 MS. BORGIA: No -- no, because you're
20 -- this is not what the proposal was. The proposal
21 was to move it from the spent fuel pool to another
22 place on the site.

23 MR. BURRONI: You're talking about
24 tanks? Yes?

25 MS. BORGIA: Tanks, yeah.

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2 MR. BURRONI: Okay. And I think John
3 Sipos has talked about tanks. It would be another
4 N.R.C. review on the tanks. Where would we put them
5 on site? It would probably increase the amount of
6 plant -- the amount of property that we cannot free
7 release at the end of the 12- to 15-year period,
8 right. It's a number of things, right.

9 How would I get the water from the
10 pools to an outside tank? And then the tank, also,
11 if you look at Dave --.

12 MS. KNICKERBOCKER: No.

13 MR. BURRONI: I guess, we're just not
14 talking the same --?

15 MS. KNICKERBOCKER: Yeah, no. I -- I
16 need to say something. Okay? I -- because I know
17 what you're saying, Catherine, because that was
18 considered an alternative. I don't believe it's a
19 viable alternative. And what we have to do, and
20 we're running out of time, unfortunately, we need to
21 have Dave Lochbaum speak to this.

22 It's not what you think it is, those
23 holding tanks. They leak. You can double, double
24 wall them. I've heard the double wall just takes a
25 little bit longer for them to leak. Now, you have a

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2 whole other problem. They're vented from the top,
3 and I'm sorry, Dave Lochbaum, but I'm just trying to
4 give you just a very little review of -- and -- and I
5 do want Dave to speak to this, maybe, at the next
6 meeting, go into it further, because I'm taking up
7 time.

8 But I know what you're saying. You're
9 hoping that that's an alternative. But finding out
10 the information about it, it's not going to be a
11 viable alternative to the water. But I want Dave
12 Lochbaum to speak to that because I'm going to --.

13 CHAIR CONGDON: Dave, do you want to
14 do one minute on -- on the tanks? Then we'll turn to
15 the public.

16 MR. LOCHBAUM: ... which stored like,
17 something like 56 million gallons of contaminated
18 water in tanks. Initially, they used single wall
19 tanks and about half of them leaked, so they went to
20 double wall tanks. And about five to ten percent of
21 them leaked in less time than that. So all -- all it
22 does is delay the inevitable.

23 And related to that, if, because the
24 monitoring walls that were installed at Indian Point
25 were to deal with leaks from the Unit One and Unit

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2 Two spent fuel pool, they may or may not detect a
3 leak from one of these storage tanks wherever you
4 place it. So you would not know about it,
5 necessarily, until it's too late.

6 So that's why I think discharge to the
7 river is the safest way to deal with the tritium
8 hazard of anything I've seen.

9 CHAIR CONGDON: Thank you, Dave.

10 I think with that, I'd like to turn to
11 the public statement hearing portion of tonight's
12 meeting. And I'm going to --.

13 MR. WEBSTER: I think --.

14 CHAIR CONGDON: Richard, you know,
15 we're -- we're running way past time and we've got --
16 we've got speakers signed up. Do you want to have a
17 -- thirty seconds?

18 MR. WEBSTER: Yes, please. So first
19 of all, Rich Burroni, I do appreciate that you did
20 keep your word. I think I -- I hope everybody's
21 recognized that, that Holtec promises a month's
22 notice, and we've got a month's notice, so that's
23 very good.

24 In terms of trying to figure this out,
25 I mean I think the risk -- the high risks or the

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2 highest risks, I should say, are bathers and boaters,
3 direct contact. So I'm -- you are saying discharge
4 in September. I think discharge to October would
5 reduce that.

6 In terms of tanks on site, you know,
7 I'm pretty sure we can do some engineering. In terms
8 of misunderstandings of violations, the way Holtec
9 can fix that is by getting prompt communications out
10 about violations. Don't wait for the N.R.C. to
11 publish on items, a report of the violations. Get
12 ahead of them. Tell the community what's going on
13 and make sure the community understands what's going
14 on.

15 Because I think there is a problem
16 here primarily with trust, and we could -- we can't
17 build trust without good communication.

18 MR. BURRONI: Right. I -- I -- I'll
19 take that back. I -- I thought we've had
20 constructive discussions on the L.A.R.s. I guess
21 not. I'll take that back and we'll have a -- we'll
22 have thorough discussion next meeting.

23 CHAIR CONGDON: I -- I'd like to just
24 make one quick observation about the levels of -- I
25 want to bring it back to John Sipos' slide. The

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2 discharges, historically, have been a small fraction
3 of a percent of allowable limits in the -- compared
4 to drinking water standards, it's been a small
5 fraction of the allowable drinking water standards at
6 the discharge point.

7 We have decades of historical
8 monitoring data in the river. There's been a lot of
9 talk about upstream, downstream. The data show
10 upstream numbers from the upstream monitoring,
11 consistently lower than the downstream numbers. And
12 those numbers are all within -- way within drinking
13 water standards of the historical monitoring
14 upstream.

15 Maybe D.O.H. can just confirm that I -
16 - what I just said is accurate. The upstream numbers
17 are consistently lower than the downstream numbers.
18 Is that correct?

19 MR. DAMIANI: That is correct. The
20 upstream numbers are always lower.

21 CHAIR CONGDON: And let's talk about
22 how the 20,000 picocurie per liter applies. When
23 that's set, based on a health standard, what are the
24 assumptions about the exposure -- for the
25 radiological exposure, what are the assumption --

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2 assumptions about the person that's -- that's being
3 exposed to 20,000 picocuries per liter?

4 MR. DAMIANI: Okay. So that M.C.L.,
5 in order to get the -- the four millirem, that is the
6 assumptions built in, are that you are consuming two
7 liters of water a day, every day for the year.
8 Right. And that will get you that --.

9 CHAIR CONGDON: Two liters at 20,000?

10 MR. DAMIANI: Correct.

11 CHAIR CONGDON: So two liters a day at
12 20,000 picocuries per liter for a whole year to
13 arrive at the 4 millirem.

14 MR. DAMIANI: Correct.

15 CHAIR CONGDON: I just think it's
16 important context. We're talking about swimming in
17 the river where the data historically show levels in
18 the hundreds of picocuries per liter. Someone's
19 going to swim in the water, maybe get a gulp,
20 compared to 20,000 picoliters --

21 MR. DAMIANI: Picocuries per liter.

22 CHAIR CONGDON: -- picocuries per
23 liter, two liters a day for a year to get four
24 millirems. I think it's important context and I
25 don't want to leave that point until it's settling in

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2 a little. So thank you.

3 MR. SIPOS: And -- and just to
4 reiterate, if you're drinking two liters a day for a
5 year, that would be roughly 730 liters at 20,000
6 picocuries per liter for a year.

7 MR. DAMIANI: Correct.

8 MR. SIPOS: That's a lot of liters.

9 CHAIR CONGDON: So I -- I get the -- I
10 get the psychological aspect of the timing in the
11 summer, but I want to put context into this.
12 Concentrations matter. The numbers matter. It's not
13 just tritium toxic waste in the water. We're talking
14 about very, very small concentrations. So with that
15 --.

16 MR. LOCHBAUM: Tom, this is Dave
17 Lochbaum.

18 CHAIR CONGDON: Yes.

19 MR. LOCHBAUM: Can I ask a question of
20 Rich?

21 CHAIR CONGDON: Yup. And then we do
22 have to go to the public statement hearing.

23 MR. LOCHBAUM: I'm sorry.

24 CHAIR CONGDON: Go ahead.

25 MR. LOCHBAUM: Rich, have there any --

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2 have there been any batch releases from Indian Point
3 to the river this year? If so, was there any tritium
4 in that water? And if so, would the Hudson River
5 know whether that tritium came from the spent fuel
6 pool or other places?

7 MR. BURRONI: I -- I'd have to talk to
8 the health physics department, Dave, to answer that
9 question. I'll get back to you.

10 MR. LOCHBAUM: Okay. Thank you.

11 MR. BURRONI: You're welcome.

12 CHAIR CONGDON: Thank you. Can I turn
13 it over to Tom Kaczmarek to please start the public
14 statement hearing. Thank you.

15 MR. KACZMAREK: Absolutely. And just
16 while I'm providing an intro here, Anthony
17 Constantino will be first, followed by Christopher
18 Vargo. And then I'll call up the other names. While
19 you're approaching the mic, in case you're in the
20 overflow space, just a reminder, today's public
21 statement period is 30 minutes in duration.

22 Thanks to those who participated in
23 the April 25th, 2023 public statement hearing, two
24 nights ago. Attendees who registered to speak will
25 be called on in the order in which they registered,

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2 starting with those participating in person. And
3 we're prioritizing those who were unable to speak on
4 Tuesday to afford more voices an opportunity to speak
5 tonight.

6 To provide a fair opportunity, there
7 will be a three-minute time limit. I'll give you a
8 30-second warning, and then I'll let you know when
9 your time is up.

10 You may begin.

11 CHAIR CONGDON: I think the mic needs
12 to -- or -- or get closer to the mic.

13 MR. SIPOS: Yeah, get a little closer.
14 Good.

15 MR. CONSTANTINO: Okay. There it is.
16 It was off.

17 CHAIR CONGDON: Thank you.

18 MR. CONSTANTINO: Okay. Well thanks
19 everybody for showing up. It's been interesting to
20 hear all these different sides. I have a couple
21 questions.

22 Okay. First thing is -- is, you know,
23 like I'm listening to all of this information and,
24 you know, like I said, it's all about numbers, you
25 know, but I'll be honest, you know, like at the same

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2 time, like I look at the history of the country and
3 I'm just going to mention a couple of things.

4 You know, Agent Orange, Camp Lejeune,
5 things like that, I mean, we have things that have
6 been going on for years and nobody says anything.
7 And then you'll see it on the news, you know, oh, you
8 know, we knew the water was bad, we knew this was
9 bad. And everybody's like, well, how come nobody was
10 watching it?

11 You know, so obviously when I hear all
12 these numbers from everybody, I'm going to look at it
13 with a certain amount of skepticism from all sides.
14 Okay?

15 Also, I have questions with Holtec. I
16 have a question. I see that they -- they slowed it
17 up on -- in Pilgrim because they can't drop it. I
18 also see that they -- they stopped in an Oyster Creek
19 now. Okay. You put it off for four years, you know,
20 because of financial, like, I'm wondering how come,
21 like what the financial part isn't coming in to
22 Indian Point. Like, is there a rush on this place?
23 You know, like Willow Creek was just moved now for
24 four years, right. Recently. Right? They moved it
25 off.

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2 MR. BURRONI: I'd have to get back to
3 you.

4 CHAIR CONGDON: Yeah.

5 MR. CONSTANTINO: You know. And --
6 and be -- and then what I was -- it's -- it's the
7 same thing that, you know, Senator Harckham said.
8 You know, like a lot of times the first thing is
9 like, is people's jobs. Like, I'm not here to put
10 anybody out of work. But at the same time, let's be
11 honest, it's all profit. You know, corporations look
12 at the profit first.

13 You know, there is a trust fund and
14 there's billions of dollars in it, you know. So if
15 they're going to cut costs, obviously, it's always
16 the people at the bottom. So you know, I'm looking
17 at it from that perspective, too, you know, like
18 holding them hostage, you know. And -- and that's
19 not really the reality of it.

20 I sort of agree with Senator Harckham
21 that, really no pollution is good at all in the
22 water. You know, I understand tritium. I understand
23 that the half-life of it. I understand, you know,
24 how it stays in your body, but what no one's speaking
25 about is, you know, children, like what about a child

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2 drinking the water? Like you know like this -- they
3 just said the scientists have said, well, if you
4 drink so many liters, but is that an adult?

5 You know, what -- what about a woman
6 that's pregnant? You know, what about a small baby,
7 you know, after a certain amount of years, you know,
8 is it going to get into their system? You know. So
9 I'm sort of concerned about them, you know, dropping
10 this into the water.

11 And then no one's speaking about the
12 fish. You know, I mean, you know, it's not drinking
13 water. The fish are getting it and it gets into
14 people eating the fish, so you know, I don't -- I
15 think it should be actually put off a little longer
16 until we actually have more, you know, information,
17 actually, like they had mentioned, doing it in the
18 wintertime and doing it at different times of the
19 year because it doesn't seem -- it seems to me like
20 everything's sort of being like rushed up a little
21 bit, you know.

22 And I see other examples where it's
23 been slowed down, you know, for other -- other
24 reasons. So from -- in a health issue, I would
25 rather see this like put -- so we have like people

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2 monitoring everything.

3 MR. KACZMAREK: Thank you.

4 CHAIR CONGDON: Thank you, sir.

5 MR. CONSTANTINO: Okay. Thank you
6 very much.

7 MR. KACZMAREK: Next is Christopher
8 Vargo, followed by Angelina Vezzetti.

9 MR. VARGO: How you doing? Chris
10 Vargo, I'm from the Point. Here's a problem. I'm
11 driving in and it's against International Law to dump
12 tritium out into the Atlantic Ocean, but somehow,
13 it's allowable in front of my house. And literally,
14 it's in front of my house.

15 You guys made -- I'm not talking to
16 you, Dr. Becker. I'm talking to you guys. You made
17 a bad deal with Holtec. That's what's -- all you're
18 doing. You can say whatever you want. You made a
19 bad deal with Holtec. They -- Vermont Yankee shipped
20 it out. They solidified it and buried it. They can
21 do it here.

22 If we're so worried about employment,
23 hire more truck drivers who can easily do it. It's
24 been done.

25 And here's another thing. At the last

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2 meeting, Mr. Lochbaum, he mentioned that they use
3 tritium in exit signs. So wrap your head around
4 this. The building inspector is going to go through
5 that building before they destroy it, remove all the
6 tritiated exit signs, dispose of them properly,
7 because if they're not, they get fined.

8 But somehow, you can dump tritium
9 straight into the Hudson River. How does this make
10 sense? It's just -- it doesn't make any sense. We
11 don't -- there's no monitoring. I -- I emailed the
12 D.E.C. couple times. They never got back to me. Mr.
13 Burroni, if I mispronounce your name, I apologize.
14 I'm not being funny.

15 MR. BURRONI: Thank you very much.

16 MR. VARGO: Okay. He -- he -- now I
17 got thrown off. Mr. Burroni mentioned that -- which
18 I -- I'm hopeful for, we have more monitors coming
19 in. But it's like you guys go with your hat in your
20 hand. Can we please come in? Can we please come in?
21 Who's inspecting? That's exactly what's going on.
22 You can make any face you want, but that's what's
23 happening.

24 I said to Mr. Burroni, I wished he was
25 in your seat and he was trying to fight for us.

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2 You're not -- it doesn't make any sense. The cement
3 that you are crushing, who's taking the samples to
4 make sure it's not contaminated? Who's -- where is
5 the inspectors? Just slabs, the cement slabs, are
6 they taking samples of the -- of the slabs and make
7 sure they're meeting the -- the building inspector's
8 code.

9 Just the oversight is pathetic. And
10 it -- it makes us -- and you wonder why people get so
11 upset. That's why. Thank you very much.

12 MR. KACZMAREK: Next is Angelina
13 Vezzetti, followed by Dietmar Detering -- or
14 Detering.

15 Ms. Vezzetti, are you with us this
16 evening?

17 All right. Next is Dietmar Detering.
18 Again, apologies if I'm mispronouncing your name.

19 MR. DETERING: No; it was good. Thank
20 you very much. I salute you all for caring for the
21 environment and the safe decommissioning of Indian
22 Point. I am an environmentalist and former member of
23 the German Green Party. I now know that nuclear
24 energy is our most sustainable source of energy and
25 our best, if not only, hope to avoid catastrophic

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2 climate change.

3 In late 2019, I co-founded Nuclear New
4 York. Our first mission: raise awareness for this
5 environmental crime. The closure of Indian Point
6 causes seven million tons of CO2 emissions every
7 year, plus methane emissions and toxic air pollution.

8 I will use my time to empower you with
9 data and science. To start, Indian Point, we learned
10 tonight, holds a total of 400 curies of tritium that
11 is 1/25th of a gram with a total -- within the total
12 of 1.5 million gallons of water.

13 In extreme concentrations, tritium is
14 harmful. The median lethal dose of tritium is
15 estimated to be 10 curies. For comparison, the
16 median lethal dose of bleach is 80 grams for a person
17 my size. That means that this jug of bleach can kill
18 just about as many of us as all of Indian Point's
19 tritium.

20 The difference, the bleach in my hand
21 -- well, this is empty, don't worry about it -- can
22 kill -- the bleach in my hands can kill. The tritium
23 at Indian Point cannot given all the water that it is
24 in. In other words, trying to inflict harm with
25 Indian Point's tritium is as impossible as performing

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2 chlorine poisoning with pool water.

3 The calculated harm from tritium in
4 extreme concentrations is due to its radioactivity.
5 Radiation is all around us, though, mostly coming
6 from space, the potassium in our bodies, and the
7 radon emitted from the ground. We're also exposed to
8 radiation in medicine. In total, Americans receive
9 an average dose of about 620 millirem per year.

10 While millirem measures bodily harm
11 from radiation, there's actually no evidence of harm
12 from such low-dose radiation. The federal limit on
13 additional beta and gamma radiation is four millirem
14 annually, a rounding error over our background dose.

15 Eating just two bags of Brazil nuts
16 will give me a dose of three millirem. I'm not
17 worried about eating Brazil nuts. I think they're
18 healthy. These aren't even organic.

19 Holtec is planning to release tritium
20 at concentrations of, at most, three percent of the
21 federal limit that releases into brackish water in
22 the Hudson, which no one can drink due to all the
23 salt.

24 MR. KACZMAREK: Thirty seconds.

25 MR. DETERING: And you would have to

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2 drink 18 gallons of this water every day for a year
3 to receive four millirem. However, doing this with
4 just two liters of Pedras, a Portuguese mineral
5 water, would give you a dose of 19 millirem with
6 alleged health benefits.

7 I joined the environmental movement
8 because we had the facts and the signs on our side.
9 The anti-nuclear activists that are hysterically
10 spreading panic and fooling decision makers about
11 Holtec's tritium release, however, have neither facts
12 nor science as this minimal release of tritium into
13 brackish water threatens no one.

14 MR. KACZMAREK: Please begin to wrap
15 up, sir.

16 MR. DETERING: The only purpose -- the
17 only purpose of this campaign is to keep the anti-
18 nuclear movement alive and to distract from the real
19 climb -- crime, the closure of Indian Point which has
20 destroyed the economic base of Buchanan and thousand
21 family supporting jobs, and which is now causing more
22 global warming, air pollution, and deaths. Thank
23 you.

24 MR. KACZMAREK: Next -- next is Susan
25 Hito. Susan Hito, followed by Brian Campbell.

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2 MS. HITO: Good evening. Thank you
3 for hearing me. I have -- I have questions tonight.
4 I was the original attorney on the close-cycle
5 cooling case regarding the D.E.C., along with Richard
6 Brodsky. And we had to bring that case because the
7 government wasn't doing its job.

8 And -- and we ended up winning. And
9 that's one of the reasons Indian Point was closed.
10 And that was regarding the thermal pollution.

11 And so going back to the -- I'll get
12 to that about the permits, but I have questions.
13 What health studies are you all relying upon for your
14 standards? As to that there's no health impacts of
15 tritium on the -- at this level? There are no health
16 studies. They don't exist. So how -- these are all
17 guesses. You're all guessing at whether this has a
18 impact on human health.

19 The N.R.C. made a bold statement that
20 tritium doesn't bioaccumulate. I know that's not
21 true, from my scientific research. I don't know
22 where you got your information. I'd like to know how
23 you decided that it doesn't bioaccumulate in not only
24 in human bodies, but in fish, in biota, in plant
25 life.

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2 It bioaccumulates, especially for E.J.
3 populations that fish the rivers, for the children
4 that the D.E.C. tells to go down to the river and
5 count the eels. It bioaccumulates.

6 What -- has anyone discussed the
7 amount of picocuries of the untreated radiation
8 that's been leaking out of Indian Point into the
9 Hudson River? No one's even mentioned it. It
10 exists. That's our background radiation. The leaks
11 that already exist, that will exist, that will not
12 allow the site to be turned into a park ever because
13 it exists in the bedrock. And it's not been cleaned
14 up and it can't be cleaned up, as we've been told by
15 the N.R.C. in the past.

16 So this whole thing is a sort of a
17 joke that we're rushing to clean this site up when it
18 can't ever be turned into something else.

19 And no one here tonight has mentioned
20 the Endangered Species Act and the endangered species
21 that are two miles south downriver, where the D.O.H.
22 has said there are higher levels of tritium. We know
23 there's tritium in the Haverstraw Bay because in --
24 the desal plant that the P.S.C. approved, that was a
25 fiasco, in that finished water, in the pile of

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2 finished water, there was tritium, strontium, and
3 cesium.

4 So we know it exists. Why is there no
5 monitoring in the Haverstraw Bay --

6 MR. KACZMAREK: Thirty seconds.

7 MS. HITO: -- where there's the
8 endangered sturgeon?

9 The D.E.C. permits that you're relying
10 upon were about thermal pollution. They were not
11 about the release of this -- this spent fuel pool
12 water. The -- these need to be amended. These
13 D.E.C. permits cannot be relied upon. The SPDES
14 permits are not for a -- a decommissioning plant.
15 They're specifically, in paragraph 28, there's a
16 commitment to closing Indian Point, and that's the
17 basis of those permits. It's closed. Those permits
18 are no longer functional.

19 MR. KACZMAREK: Please begin to wrap
20 up your statement. Thank you.

21 MS. HITO: Excuse me?

22 MR. KACZMAREK: Please begin to wrap
23 up your statement.

24 MS. HITO: Okay. I'm going to wrap
25 up.

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2 You're talking about releasing -- you
3 -- you talk about over 11-year period of these
4 releases, and now you're talking about releasing the
5 same -- more than that amount of water in two years.
6 That's a lot more impact that you're not counting.

7 And what's the rush, as was raised
8 before. You're saying you're not going to be able to
9 do anything for 10 to 12 years.

10 MR. KACZMAREK: Ms. -- Ms. Hito, are -
11 - are you -- are you wrapping up your --?

12 MS. HITO: Yes, I'm wrapping up.
13 Besides that, the casks that you put on this site
14 cannot be moved. They're not approved for
15 transportation. So it's sort of a scam that you're
16 telling everyone that we got to rush to dump the
17 water in the river. You got to wait and figure out
18 how we're going to do this safely and how we're going
19 to clean up this site safely.

20 Thank you for your time, and I'd like
21 answers to my questions. Thank you.

22 CHAIR CONGDON: I'll -- I'll -- I'll
23 remind -- I'll remind the speakers --

24 MR. KACZMAREK: Other way.

25 CHAIR CONGDON: -- I'll remind the

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2 speakers we will endeavor to answer all the questions
3 that are raised at the mic tonight. And we will post
4 those on our website. Thank you.

5 MR. KACZMAREK: Next up is Brian
6 Campbell, followed by Urvashi Rangan.

7 MR. CAMPBELL: Hi. My name is Brian
8 Campbell. I am a veteran, a retired electrical
9 engineer, and I strongly support Holtec's releasing
10 the treated water with residual tritium from the
11 prematurely closed industrial cathedral, Indian Point
12 Nuclear, into the Hudson River.

13 On February 2nd, the Oversight Board
14 heard from David Lochbaum, a nuclear engineer and
15 former director of the Nuclear Safety -- Safety
16 Project for the 50 million dollar a year Union of
17 Concerned Scientists, and outlined his reasoning that
18 releasing the treated water into the Hudson poses the
19 least public risk.

20 This safest scenario agrees with
21 nuclear expert, Dr. James Conca, who reports at any
22 level outside the laboratory, either experimental or
23 manufacturing tritium is harmless.

24 Every year, we release millions of
25 gallons of slightly tritiated water into the oceans,

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2 large lakes, and large rivers from almost every
3 commercial nuclear reactor in the world and have done
4 so for decades, all in accordance with globally
5 accepted nuclear safety standings.

6 No adverse effects on the environment
7 or humans have been observed. The presentations by
8 Holtec to this Oversight Board shows Holtec to be a
9 good corporate citizen, performing the Indian Point
10 decommissioning in a truthful and open manner that
11 should be commended.

12 Instead, our New York political
13 establishment unfairly condemns Holtec just as they
14 drove Entergy to prematurely close Industrial
15 Cathedral Indian Point Nuclear in 2021.

16 This increased New York's emissions by
17 7 million tons per year, eliminated 80% of New York
18 City's low emission energy, and a thousand mostly
19 union jobs. This reliable electrical generation was
20 more than twice the unreliable electrical generation
21 from all the wind and solar power in New York State.

22 And so what replaced in Indian Point's
23 low emission --

24 MR. KACZMAREK: Thirty seconds.

25 MR. CAMPBELL: -- reliable electrical

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2 generation? The answer can be found in Riverkeeper's
3 website from October 2011, a synopsis report, titled,
4 New Analysis, Indian Point Nuclear Plant can be
5 Replaced with Cleaner, Safer Energy. This was
6 commissioned by \$415 million a year Natural Resource
7 Defense Counsel and Riverkeeper.

8 MR. KACZMAREK: Please begin to wrap
9 up, Mr. Campbell.

10 MR. CAMPBELL: One paragraph.

11 MR. KACZMAREK: Please begin to wrap up. We're at
12 three minutes, sir.

13 MR. CAMPBELL: I'll just finish this.
14 One paragraph from this report, in sum, there is a
15 large potential for natural gas facilities to replace
16 energy and capacity of Indian Point. Natural gas
17 generation may play an important role in maintaining
18 reliability requirements of grid operating standards.
19 If there is need --

20 MR. KACZMAREK: Mr. Campbell --

21 MR. CAMPBELL: -- for baseload or
22 dispatchable generation in the area of an Indian
23 Point, and we built two --

24 UNIDENTIFIED FEMALE SPEAKER: Yes, we
25 did.

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2 MR. CAMPBELL: -- natural gas --.

3 MR. KACZMAREK: Mr. Campbell? Sir --.

4 UNIDENTIFIED FEMALE SPEAKER: We did.

5 MR. KACZMAREK: Sir, we need to afford
6 other individuals --.

7 MR. CAMPBELL: Okay. We did it.

8 MR. KACZMAREK: -- the opportunity --.

9 MR. CAMPBELL: We replaced it with
10 natural gas.

11 UNIDENTIFIED FEMALE SPEAKER: Yes, we
12 did.

13 MR. KACZMAREK: Thank you.

14 Next is Urvashi Rangan or -- or
15 Rangan, followed by Herschel Specter.

16 Urvashi, are you with us this evening?
17 Herschel Specter, if you're with us,
18 please come up to the mic.

19 MR. SPECTER: Thank you all. I'm
20 Herschel Specter, a professional engineer in the
21 State of New York, a person who got a graduate degree
22 from M.I.T., a former federal A.E.C. licenser and
23 project manager for licensing Indian Point three.
24 Just so you know where I'm coming from. I am shocked
25 that this meeting is happening tonight.

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2 This meeting really should have
3 happened back in 2017. There are legitimate
4 questions that are being asked. People are fearful.
5 There's information that hasn't been exchanged. And
6 when there is no information or not enough, fear sets
7 in, suspicion, and people don't talk to each other.

8 And even when people on both sides
9 make legitimate statements, the other side scorns
10 them. So clearly, the largest message that you might
11 want to hear tonight is we better do a better job
12 talking to each other, so we can develop trust
13 because trust is absent right tonight.

14 I've heard that from a number of
15 people on both sides. They're right. And if we -- I
16 have to tell you something. Back in 2017, every
17 senior New York State official, the governor, our two
18 senators, our elected members to the House of
19 Congress, all -- plus all of our local people went to
20 the N.R.C. and said we want to have a hearing. And
21 they were brushed aside.

22 I'm sorry, but the N.R.C. shortchanged
23 all of us. They should have had a meeting. And
24 furthermore, in the N.R.C. regulations, there's a
25 regulation that says, once the N.R.C. receives the

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2 post-shutdown -- decommissioning shutdown report,
3 they are to contact the people, and in short order,
4 I'm paraphrasing, to have a public meeting.

5 They never had it. They resisted it.
6 And they only had a mockup of that long after the
7 license had been transferred. So we're under a
8 situation which, frankly, I believe, was an illegal
9 transfer of the license. But that's history.

10 MR. KACZMAREK: Thirty seconds, sir.

11 MR. SPECTER: The real question is
12 will you listen to science or are you're going to be
13 motivate by -- motivated by fear? Let science have
14 its day. Thank you.

15 MR. KACZMAREK: Next is --

16 CHAIR CONGDON: Tom?

17 MR. KACZMAREK: -- Edward Cooke.

18 CHAIR CONGDON: Tom?

19 MR. KACZMAREK: Oh, sorry.

20 CHAIR CONGDON: I think that was a
21 really good way to end the public statement hearing.
22 I think -- it's nine -- it's nine thirty-five. You
23 want to take one or two more? We'll take two more.
24 We'll take two more.

25 MR. KACZMAREK: Edward Cooke, and

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2 we'll finish with Dan Galinko.

3 MR. COOKE: Thank you. Hi, I'm Edward
4 Cooke. I'm a business representative for the
5 carpenters of Local 279 of the North Atlantic States
6 Regional Council of Carpenters. I'm here today on
7 behalf of my union membership, working on the safe
8 and structured dismantling of Indian Point Nuclear
9 Power Plant.

10 Before our carpenters can set foot on
11 site, they have to take a series of tests to
12 understand nuclear radiations and the hazards that
13 they're going to face, as is every craft worker
14 there. They're highly trained and they're highly
15 specialized in this decommissioning process.

16 Our union represents professional
17 carpenters, installing technical scaffolding and
18 safety barriers and platform, specially trained
19 decommissioning carpenter techs, and highly trained
20 technicians in the detection and safe operation in
21 those hot areas and in the areas around the Point
22 where any workforce is to guarantee the safety of the
23 worker.

24 I'm here today to attest the fact that
25 safety is the number one priority of all involved in

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2 the product -- project. Our members are working to
3 ensure that the project is done with personal safety
4 in mind every step of the way. They follow the
5 N.R.C. guidance and the rules and plans put in place
6 for their safety and for the community's safety.

7 Nothing is done at Indian Point
8 without -- without overthinking it. That's the
9 reality. They overthink it 10 ways to Sunday and
10 then they act upon it. If there's an issue with the
11 plan, the workforce stops the plan and they redevelop
12 the plan to make sure it's done safely.

13 We are doing the work the right way
14 with the utmost care to ensure personal safety, as
15 well as communities in which we live. We train and
16 upgrade our skills for the task at hand and to meet
17 the need of a safe and incident-free project. The
18 men and women working onsite live in the community.
19 This is our home and we are committed to ensuring the
20 safety of ourselves, our families, and the neighbors
21 and all around us.

22 I can say, unequivocally, that we take
23 every step to ensure that our members take special
24 care in their work, and that they are -- they take
25 care with the best practices set by the industry.

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2 The men and women of the Carpenters Union and the
3 other professional crafts on tight -- site take their
4 responsibility seriously, and we appreciate the trust
5 that we have been given to perform such uncharted and
6 sensitive and important work.

7 The practice of releasing water has
8 been ongoing for over 60 years and has been allowed
9 while the plant was providing energy for Southern
10 Westchester and New York City. It has been --

11 MR. KACZMAREK: Thirty seconds.

12 MR. COOKE: -- monitored by the --
13 excuse me?

14 MR. KACZMAREK: Thirty second warning,
15 sir.

16 MR. COOKE: Okay. I -- it has been
17 monitored by the N.R.C. and state officials for that
18 time. Storing the water onsite is not a viable or
19 sound plan. Changing the rules midstream isn't
20 right, either. Stopping and slowing the process is
21 not a viable option, either. This could have -- this
22 should have been addressed prior to the shutdown and
23 at the start of the decommissioning process.

24 For years, the water has been released
25 and monitored by the N.R.C. and the state knew about

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2 it.

3 I want to thank you for allowing me to
4 speak, and I can assure you that every carpenter and
5 every professional tradesman on that site cares about
6 the community, their self, and their family, and they
7 will not do it wrong, nor will Holtec let them.
8 Thank you.

9 MR. KACZMAREK: Dan Galinko?

10 MR. GALINKO: All right. Good
11 evening. I hit some cleanup in -- in high school
12 baseball, so I guess I got -- but a lot of people
13 drove an hour to be here. It's sort of disappointing
14 that you're going to cut everybody off, so.

15 CHAIR CONGDON: We -- we -- we
16 scheduled 30 minutes for the public statement
17 hearing. We had a three-hour public statement
18 hearing two nights ago. We can take one more after
19 Dan, I think.

20 Tom? We can take one more after Dan?

21 MR. KACZMAREK: I believe so.

22 CHAIR CONGDON: Okay. Go ahead, Dan.

23 MR. GALINKO: All right. Thank you.

24 So again, I'm Dan Galinko from Safe Indian Point
25 Demolition. Appreciate the time this evening. I

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2 guess the first thing I'd like to do is ask all the
3 public officials here who can assure me that at no
4 time in the next decade, anything will leave the
5 perimeter of Indian Point? Not one speck of dust,
6 who can make that assurance? I'd love a show of
7 hands.

8 So the problem here is that, in the
9 real world, things go wrong. And so I get in wire
10 saw we trust, but anything could go wrong on any
11 given day. And we've learned from the gypsum plant
12 that when something goes wrong, it goes due east. We
13 have a school 4,000 feet due east of this demolition
14 plant. So I'm -- I believe that the planning is
15 immaculate, and I'm sure we don't expect anything to
16 go wrong.

17 But what happens if the water goes off
18 suddenly to the wire saw and things get hot?
19 Something catches on fire, something explodes, a
20 truck driver rushes over the steel without the steel
21 plates, over the gas crossing. Any variety of --
22 garden variety of things that could go wrong create
23 an issue that immediately impacts the school.

24 And I don't know why we have to assume
25 -- I cannot bet my children's safety on that. It's

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2 absurd. So why are we keeping kids 4,000 feet away
3 in a school when anything could go wrong?

4 And I know everybody in this room here
5 is working towards an extremely safe process. I know
6 everybody wants to go home safe and do it safe for
7 the community. But things go wrong in any area of
8 work, in the medical field, in any field, things go
9 wrong on a given day. And the immediate consequence
10 is to the kids across the street.

11 And so I don't know where Governor
12 Hochul is. She hasn't said one public word since
13 she's been in office about this process. We need
14 some public service to defend the kids in the
15 community and get them out of harm's way. They don't
16 need to be there. So I thank you for your time and
17 consideration.

18 MR. KACZMAREK: Thank you.

19 Our -- our final speaker this evening
20 will be Arthur Carlucci.

21 UNIDENTIFIED FEMALE SPEAKER: And
22 that's it.

23 MR. KACZMAREK: Arthur, are you with
24 us this evening?

25 Kirsten Bourne. Is Kirsten Bourne

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2 with us?

3 MR. KACZMAREK: Kirsten?

4 Warren Smith is next. Warren? Mr.
5 Smith, you'll be our last speaker tonight.

6 MR. SMITH: Thank you. Thanks to the
7 Board. Thanks to all the agencies that came tonight
8 and gave us, I think, a great presentation. Very
9 informative. I had a million questions before I got
10 here. A lot of them were answered as far as -- a lot
11 of them were answered. So I'm kind of left with
12 this.

13 I'm Warren Smith. I'm from Verplanck,
14 New York. I've been living in -- I was born there,
15 60 years ago in July. I think I'm probably the only
16 one in this room that swam there -- the only one in
17 this room that's swam in the Hudson more than me in
18 the last 60 years is probably Tommy Carey.

19 We've been swimming in that river for
20 60 years and -- and nobody was really too worried
21 about the tritium that was in there then. And I kind
22 of want to ask, initially, my state representatives.
23 I know my town representatives didn't know. My local
24 representatives didn't know, but the federal and
25 state representatives must have known.

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2 And if it was super dangerous then, I
3 wish they would have pointed that out. I was
4 basically -- I swam in -- at Little White Beach,
5 which is one of the collection points, pretty much,
6 that I noticed on the map tonight.

7 Anyway, going forward, what I'd like
8 to do, I -- I've been living there 60 years. My
9 children are there. I've got a grandchildren arrive
10 -- a grandchild arriving in September. And I'd like
11 the board and my -- my elected officials to go by
12 one, only one goal. And that is to the safety of the
13 public. And I'd like to get whatever option we
14 decide on to be chosen based on what's going to be
15 the safest outcome for the public.

16 That is -- that is the only thing we
17 should be really looking at. I don't want to hear
18 about the politics. I really don't want to hear
19 about, you know, political expediency or financial
20 expediency. I just want to hear about what is the
21 safest. And I'm -- I'm thinking you guys are going
22 to work on that. Follow the science. I think one of
23 my other three speakers mentioned that.

24 So that's -- that's how I'll leave it
25 tonight. Thank you very much.

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2 MR. KACZMAREK: Thank you.

3 And -- and just a reminder, those who
4 were unable to provide public statement tonight may
5 use one of a number of other methods to submit a
6 statement and will, of course, have other public
7 statement opportunities in the future.

8 Forgive me for flipping through the
9 slides quickly here. But these slides will be posted
10 on our website. You may access them for more
11 information for how to comment. Thank you.

12 CHAIR CONGDON: Thank you, Tom.

13 And thank you all for being here
14 tonight. Our next meeting is June 15th. We are
15 adjourned. Thank you.

16 (The meeting concluded at 9:47 p.m.)

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1 4/27/23 - Indian Point - 21-01188
2 STATE OF NEW YORK
3 I, DANIELLE CHRISTIAN, do hereby certify that the
4 foregoing was reported by me, in the cause, at the time
5 and place, as stated in the caption hereto, at Page 1
6 hereof; that the foregoing typewritten transcription
7 consisting of pages 1 through 198, is a true record of all
8 proceedings had at the hearing.

9 IN WITNESS WHEREOF, I have hereunto
10 subscribed my name, this the 4th day of May 2023.

11
12 DANIELLE CHRISTIAN, Reporter

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