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March 7, 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 February 2, 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

2/2/2023 - Indian Point - 21-01188

STATE OF NEW YORK

DEPARTMENT OF PUBLIC SERVICE

MATTER 21-01188 - In the Matter of the Indian Point Closure Task Force and Indian Point Decommissioning Oversight Board.

JOINT MEETING AND PUBLIC STATEMENT HEARING

DATE: February 2, 2023 at 6:08 p.m.

VENUE: Zoom and In-Person, 1 Heady Street Cortlandt, New York

BEFORE: Chairman Tom Congdon, D.O.B.

Reported by Howard Hubbard

2/2/2023 - Indian Point - 21-01188

(The proceeding commenced at 6:08 p.m.)

CHAIR CONGDON: Okay. Good evening. And welcome to tonight's meeting of the Indian Point Closure Task Force and Decommissioning Oversight Board. Supervisor Becker, thank you as always, for hosting us, and to our friends from the federal government in the audience, thank you for your continued support.

I believe representatives from Senator Schumer and Gillibrand’s Office are with us in the audience, as well as folks from the Nuclear Regulatory Commission to observe tonight's meeting. I note that we have a larger than usual audience tonight, including many folks who may be tuning in for the first time.

So to orient you, this Decommissioning Oversight Board is a bit unique. It was created by the Department of Public Service and inspired by legislation introduced by Senator Harckham and Assemblywoman Galef, who's also with us. Welcome. And it's -- its purpose is to provide a forum for information sharing between involved agencies.

It's also to identify issues for the

relevant oversight agencies to address and to help inform the public about decommissioning and spent fuel management. As you will see, when we do our roll call, we have membership that includes state agencies that either have oversight responsibility or play a role in working with the community to help transition the region following the closure of the plant.

Local, county, state elected officials, labor representatives, an independent nuclear expert and a member of the region's environmental community are also members of the board. The D.O.B. is kind of a successor to the closure -- Indian Point Closure Task Force, which we convened by statute in 2017 following the announcement to close Indian Point.

At that time, there was tremendous and understandable concern about the economic consequences of the plant's closure, the implications of our -- for our energy grid, what it would mean for the tax base, and what it would mean for the many employees at the plant.

And from the beginning, the state agency approach to the plant’s closure was to commit

to being a partner with local stakeholders, the local governments to mitigate these impacts and to keep all of the state government assets engaged to work with our local partners all the way through decommissioning.

I'm proud of what we've accomplished so far. Our time is limited, so I'm not going to go through each and every achievement, but a few things do stand out. We secured over 100 million dollars in state funding to assist the school district, village and town transition its local tax base.

With the help of our state legislators, we strengthened worker protections and we strengthened D.P.S.'s oversight over decommissioned power plants. We have made more than 15 million dollars in community environmental benefit awards. We hired a state resident inspector at the Department of Public Service to monitor the decommissioning activities.

We strengthen local building demolition permits to better -- to -- to have better enforcement mechanisms over dust control. And we're now working to develop a community monitoring program, which we'll hear more about later tonight.

All of this really came out of the task force and D.O.B.'s core function, which is that we're a venue for information sharing.

We accomplished these things because we listen. We listen to each other. We listen to the local stakeholders. We listen to the community. And based on that community feedback, we adjust our approach whenever warranted. We zero in on issues of concern in the community.

And we try to be as transparent as possible. We answer every question that comes our way. If not on the spot, we do it in writing before the subsequent meeting of our D.O.B. And I think Senator Harckham can attest to this.

MR. HARCKHAM: Thank you, Tom. I just want to comment on one quick aspect. Part of the role that we have as elected officials is to interface with the community. And I meet regularly with -- with the activist community. We met just a couple of weeks ago. We got a laundry list of items requests.

I sent a letter to the chairman. We just got the response back today. So I want to thank you for your very thorough and quick response. And a

lot of the items that you suggested will be addressed by the oversight board as -- as we go forward. So I want to thank you for that.

I know not every -- every request is -- is doable. But -- but I want to thank you for your responsiveness and your speed and I -- but I also want to thank the activist community for pushing and asking, insisting, and that's how we move forward. So thank you.

CHAIR CONGDON: Thank you, Senator. And look, we're not perfect. There is always more that we can do to improve. And Senator, we appreciate your efforts to work with the community, get us the feedback. But all of the elected officials really on the D.O.B. have been tremendous partners and are regularly communicating what they're hearing on the ground from their constituents and that helps us be better.

And look, I mean, the -- the amount of public comments that we receive, and the range of viewpoints really continues to impress me. And -- and -- and when I say there are a wide variety of views, I mean it. You know, we receive comments about, obviously, the continued environmental and --

and public health concerns about radioactive waste, emergency preparedness and planning concerns.

We receive a lot of comments as well about nuclear power and nuclear energy policy. And some comments have come in asking us to consider ways to restart the plant and to put it back to use in -- in an effort to address climate change. And so clearly, there's a wide variety of views.

There's a lot of passion. Passions can definitely be high. And our approach as this decommissioning oversight board is to just recognize the reality of our situation. We're not here to talk about the pros and cons of nuclear energy. We are here recognizing that the plant is being decommissioned.

And that we need to seek factual answers to the community's questions with evidence, citations, backup materials that we make available on our website. We are science based. We're technical based. We're fact based.

The state agencies with oversight responsibility have extremely dedicated staff working every day with a mission to protect public health and safety. Before I get on to the business to today's

meeting, I also want to just recognize and thank Tom Kaczmarek, our executive director of the Decommissioning Oversight Board and the Task Force.

Tom literally handles everything related to the D.O.B. behind the scenes. He ensures excellent coordination among the various state agencies involved in the effort. He meticulously keeps track of our commitments that we make to the community and holds us accountable to make sure that we follow through.

And he answers substantive and logistical questions from members of the community and members of the D.O.B. literally at all hours of the day and night. So these meetings just wouldn't be anywhere near as effective without Tom's leadership and so we owe him our thanks. So next slide, please.

Thank you. So we've got a lot to cover. As you can see, another full agenda. You know, given the -- the many newcomers to tonight's meeting, I asked Dave Lochbaum and Kelly Turturro. Dave is our independent technical expert. Kelly Turturro is the D.E.C. Region Three Director on the D.O.B.

We've asked him to give an overview explaining the difference between operating the nuclear power plant and one that's being decommissioned. We've gone over these presentations before to sort of set the stage for the work of the decommissioning oversight board, and where we need to focus.

But I think given the -- the -- the large number of newcomers to our process that it would be worthwhile to set the stage again. We'll then break for a 30-minute public statement hearing -- I'm sorry, I might be skipping ahead sorry. We're then going to have presentations regarding spent fuel pool water removal methods.

This is an issue that is of high interest in the local community. Folks understand that part of decommissioning means that you're going to have to deal with the infrastructure that's on site that will no longer be there when decommissioning is complete. That includes the spent fuel pools.

The water in the pools has been holding nuclear waste for a long time. And so obviously has some radioactivity that needs to be

addressed before it can be safely handled and -- and -- and removed from the site. So the question are what are the options for handling that?

And we're going to hear from Dave Lochbaum some options analysis with pros and cons. And we will also be joined by some community guest speakers who I'll introduce soon, who will go over their perspective on the issues. Then we will have a 30-minute public statement hearing.

Following the 30 minutes of public statements, we're going to go back to D.O.B. presentations where we will hear from Enbridge, which is the owner of the natural gas pipeline that runs in close proximity to the nuclear power plant and -- and through the community and has been the subject of a lot of interest at previous meetings and was in the press in December, because there was a sinkhole that developed on the right of way about eight miles away from the plant and we felt that it was worth their coming to explain what happened.

We'll also have our D.P.S., Department of Public Service Gas Safety team, talk about that issue and some other pipeline updates. We will then hear from Holtec. It's really important, I think,

for the Decommissioning Oversight Board to regularly hear from Holtec directly. Holtec can provide us with summary of activities that has occurred at the site.

They will also provide kind of going forward what they expect over the next few months. I've also asked Rich Burroni from Holtec to go into some detail about any N.R.C. inspections and findings from those inspections. At the end of the last meeting from December, Richard Webster, our -- our colleague raised a concern about a citation they received and we didn't have time at that meeting to get into it.

So I really want to make sure we have time to hear about those issues. We originally planned then also have an agency oversight update. There's just not enough time tonight. There were a lot of additional requests for speaking as part of our public statement hearing. We normally reserve thirty minutes a meeting.

We would never get through all of the -- all of the -- all of the people who requested to speak in that amount of time. So we scrapped the agency update. But we did provide all of the D.O.B.

members with a written version of that and we have already posted it on our website for all of you to see.

And then I added 30 minutes to our agenda to try to accommodate as many of the people who pre-registered to speak as possible. Next slide please. Finally, I'd like to get to the roll call. So I want to welcome a couple of new members first before we dive in. Welcome to newly elected Assembly Member Dana Levenberg, welcome.

Some big shoes to fill. So welcome.

MS. LEVENBERG: Yeah.

CHAIR CONGDON: And we're also joined by Rachel Adler from the Department of Labor who filled in now for Jeff Guynup who retired, so welcome to Rachel. I'll just go through the roll call. Supervisor Becker from Town of Cortlandt. Mayor Knickerbocker again. Joe Hochreiter from Hendrick Hudson School District.

Catherine Borgia county legislature, thank you. Colin Smith, I'm not sure if he's on virtually yet. Senator Harckham. Assemblywoman Dana Levenberg. John Sipos, our counsel from D.P.S.

MR. SIPOS: Here.

CHAIR CONGDON: Tom Kaczmarek our executive director. Cliff Chapin, our resident inspector.

MR. CHAPIN: Here.

CHAIR CONGDON: Kelly Turturro from the D.E.C.

MS. TURTURRO: Here.

CHAIR CONGDON: Rachel Adler, David Lochbaum our independent expert.

MR. LOCHBAUM: Here.

CHAIR CONGDON: Richard Webster our environmental rep.

MR. WEBSTER: Here.

CHAIR CONGDON: Al Liberatore from Teamsters.

MR. LIBERATORE: Here.

CHAIR CONGDON: Bill Smith from the U.W.U.A.

MR. SMITH: Here.

CHAIR CONGDON: Tom Carey, Westchester Putnam.

MR. CAREY: Here.

CHAIR CONGDON: Hello. And -- did I miss anyone here in the table? Okay. And we're

joined by Rich Burroni. He's not a member of the D.O.B., but welcome Rich.

MR. BURRONI: Yeah.

CHAIR CONGDON: And we'll be hearing from Rich a little later. And on the line if you can unmute, we'll call for Westchester County, Dennis Delborgo.

MR. DELBORGO: Good evening, everyone.

CHAIR CONGDON: Tom Scaglione from Empire State Development.

MR. SCAGLIONE: Good evening.

CHAIR CONGDON: Mark Pattison, Department of State.

MR. PATTISON: Good to see you everybody.

CHAIR CONGDON: Mark Massaroni from Department of Taxation and Finance.

MR. MASSARONI: Here.

CHAIR CONGDON: Jennifer Wacha from DHSES.

MS. WACHA: Good evening.

CHAIR CONGDON: Tony Hill from the New York Power Authority.

MR. HILL: Present.

CHAIR CONGDON: Thank you, Tony. Alyse Peterson from NYSERDA.

MS. PETERSON: Hi, everyone.

CHAIR CONGDON: Thank you. Did I miss anyone from the D.O.B. membership? Okay. Next slide, please. So just to want remind folks. The in person panelists who are here tonight, please remember to use this mic. That is how the court reporter will make sure we capture accurately the things that are said and develop a good transcript of tonight's meeting.

All of the virtual panelists, if you have a speaking role tonight, please make sure you're muted unless you're speaking and also remember to state your name before chiming in. All of the virtual participants in the audience who plan to speak during the public input portions of the agenda you will be unmuted when it is your turn to speak.

And also for the folks in the audience, please reserve the chat feature just for technical issues. The chat feature in the Zoom that we use is not recorded. So if you have a substantive question, you should put that into the Q&A field in Zoom and doing so will ensure that your question gets

recorded.

It will be reviewed and answered in writing before the next meeting of the D.O.B. Okay. Next slide, please. Okay. We're going to dive into our presentations. I want to introduce David Lochbaum, our independent nuclear expert, who, as I noted in the introduction, is going to just give an overview and a shortened version of some presentations he has made along the way to orient -- to orient the D.O.B. as to current state of play with the decommissioning site, and the monitoring networks that are in place today. Go ahead.

MR. LOCHBAUM: Thank you. And just to show how lucky you are, the presentation was more than 91 slides. Tonight's only 13 slides so giving you a little break. During nuclear reactor operations, federal regulations limit how much radioactivity can be released to the air and water. Those regulations also require annual reporting on the airborne and liquid releases, as well as sampling performed off site. As well as sampling performed off site to guard against bioaccumulation of the materials that are released.

The good news is that while the

federal rate limit -- federal regulations remain constant after a plant permanently shuts down, the margins to those limits increase each passing day. Slide One helps explain why that's -- that's the case. This chart is little busy, they will be posted online.

The rows are radio nuclides, like strontium 90, tritium, cesium- 137, iodine-131. The column -- the columns are time since shut down starting with zero going up to like 100 years. The green shaded bars are cases where radionuclides have decayed away. Ten half-lives, they're gone.

The yellow vertical bars are units 3, 2 and 1, going from left to right, showing that a lot of the radionuclide inventories on those units is decayed away, and can no longer be released simply because it's not there. Slide Two shows the monitors that are installed to monitor airborne gaseous release pathways and waterborne release pathways.

Those monitors will if radi -- excessive radiation is detected will cause the release path -- the releases to be terminated. So you stay below the federal limits. Slide Three shows --.

CHAIR CONGDON: Dave -- Dave, can I just ask a question on that slide.

MR. LOCHBAUM: Sure.

CHAIR CONGDON: Those are all monitors that are in place even after the plant closed.

MR. LOCHBAUM: Until there's no more radioactivity in that building they -- they remain active until there's no more need.

CHAIR CONGDON: Thank you.

MR. LOCHBAUM: Slide Three shows a map of 16 continuous radiation monitors that ring Indian Point. And Slide Four shows some of the data that's available from those 16 continuous radiation monitors. D.P.S. can access this data and get real time data. It shows the 16 radiation readings as well as the wind speed and direction.

Slides Five and Six are pages from the annual reports that are submitted to the Nuclear Regulatory Commission. The radiation levels for the 2019, the last year that both units were operating, units two and three, the radiation dose to the public was calculated to be point four three four millirem, which is far below the 25 millirem federal limit.

Slide Seven and Eight present data

from Indian Point compared to -- yeah, Seven and Eight radiation -- I get it wrong. Pages -- Slide Seven and Eight are from an N.R.C. report about radiation released from plants when they're operating and when they permanently shut down.

The average amount of radioactivity released to the air and water from decommissioning reactors was less than 40 percent of the radioactivity released from those same reactors when they were operating. Again it goes back to the first slide there's just less radioactivity around.

The only exception was tritium. Tritium released to the air from decommissioning plants was 92 percent of what it was when the plants were operating. Tritium is difficult to remove. Slide Nine looks at the radiation releases from the Zion Plant in Illinois, which is very similar to Indian Point other than it shutdown in 1996 instead of more recently.

If you -- part on the left hand side is when the plant was operating, the right hand side shows when it was shut down. The blip in 2014, '15 and '16 is when they transferred fuel to the spent fuel pool. There been no releases since the --

essentially no releases since the fuel was transferred into dry storage.

Next slide please. This shows the same data for Yankee Rowe.

CHAIR CONGDON: Excuse me, Dave. Can I just ask? These releases would you -- would you characterize those kinds of releases as the routine releases from an operating nuclear power plant? When you say releases, are these releases that were in compliance with the standards that N.R.C. imposes on these plants?

Were these releases that were somehow an accident of some kind that released the radiation into the -- into the environment?

MR. LOCHBAUM: These are routine releases that were reported annually to the Nuclear Regulatory Commission in compliance with federal regulations. Their routine releases during reactor operation, as well as, as I said, the monitoring continues after the plant permanently shuts down. That's why you get data after shut down there.

So it's -- yeah, you continue to monitor up until the time the license is terminated after decommissioning is done.

MR. WEBSTER: Is this data from the monitors that are at the point of release on the sites or from the site monitor -- from the offsite monitoring?

MR. LOCHBAUM: They're from neither.

MR. WEBSTER: Okay.

MR. LOCHBAUM: Water tanks are sampled before the release to see what's in there. And you multiply with the concentrations in various isotopes by the volume that goes out to determine what's out there.

MR. WEBSTER: Okay.

MR. LOCHBAUM: The monitors make sure that, you know, there are no surprises, you didn't miss something, you didn't sample it. So it's the sampling of water itself that determines what -- what goes in those numbers, which is more accurate by the way ... So Slide Twelve --.

MR. WEBSTER: So just -- just to be sure, just the takeaway is that basically, there are less routine releases during decommissioning, right?

MR. LOCHBAUM: Yes, the amount of radioactivity in those releases is less.

MR. WEBSTER: Right.

MR. LOCHBAUM: By the way, I don't show it. But if you look at the worker doses, they also show the same correlation. There's just less radioactivity, so the radiation doses to workers goes down as well. Next slide, please. These shows sampling points around Indian Point where periodically samples are taken of aquatic, wildlife, water, soil, and air.

These are checks to make sure what's the -- what's going on at the building releases don't bioaccumulate. They also serve as check to make sure if those monitors aren't working, these will pick it up at some point. So those are a backstop to the monitors that monitor the routine releases.

And the next slide. There is a back -- there is a -- as a further check, New York State also does monitoring independently of the company. And the Nuclear Regulatory Commission has its inspectors check what the workers are doing to make sure they don't -- they don't monitor every activity, but they periodically monitor to make sure that the calculations are right, the numbers that the N.R.C. gets annually are valid.

So those are pretty good checks that

there's no surprises and no releases above federal limits or anywhere close to federal limits. That's all I've got, Congdon.

MR. WEBSTER: Okay. Sorry, for the program. Environmental program what does that show?

MR. LOCHBAUM: That’s shown that the releases are small fractions of the federal limits.

MR. WEBSTER: Right and have there been any accumulations of concern?

MR. LOCHBAUM: Unfortunately, there’s not been many -- those data don't show any accumulation or significant accumulation. Now, so there's not been anything showing in those -- in the data. And that's also true elsewhere. It's not just Indian Point.

CHAIR CONGDON: Thank you, Dave.

Next slide. I'd like to ask Kelly Turturro from the D.E.C. to walk through some updates. We'll go back over the -- the monitoring work that the School Monitoring Working Group, which is a subset of these D.O.B. members, as well as a number of agency personnel from other agencies, including the Department of Health, have been working on. So Kelly.

MS. TURTURRO: Thank you, Tom. And as Tom mentioned to my fellow D.O.B. members, this -- much -- much of this presentation is something you saw two meetings ago. But we wanted to make sure that with additional community members here this evening, you are able to hear what the D.O.B. was working on in terms of this School Monitoring Working Group that was established back in -- during our first meeting of the decommissioning oversight board in June 2021.

So as you'll see here, our goals were to develop a better understanding of potential environmental and health risks that decommissioning could present at the B.V. school to assess monitoring best practices and to issue recommendations to the Hendrick Hudson School District.

Next slide, please. So as a working group, we worked to inventory those regulatory and monitoring protocols that are currently in place. All demolition work is subject to local demolition permits, state environmental regulations, strict workforce safety standards, and there is an onsite New York State Inspector monitoring the -- monitoring the work at the plant.

Next slide, please. In addition, we found that there is a network of radiological monitors on site on workers. And there are also 16 around the site, perimeter, including two near the B.V. school. There are also on site dust control measures and off site dust complaint reporting and investigation procedures.

In all cases, it's important to note that fugitive demolition dust must not leave the site. Next slide, please. During our work on the working group, we also consulted with state experts, and found that on-site continuous air monitors in the immediate vicinity of demolition activity offer the most timely and beneficial information.

These provide early warning and near real time results. We also learned that monitoring further out beyond the fence line may not be as useful for several reasons. There's a greater potential for interference from background readings. It's more difficult to determine the source.

And it doesn't account for long range transport of pollutants to the monitors. So I just want to take a minute to talk about heavy demolition and -- and we as a working group, worked in terms of

putting a plan -- our goal was to put a plan in place in time for heavy demolition.

And I just wanted to explain to everybody what -- what does heavy demolition mean. So it's the demolition of concrete buildings with thick walls, like the spent fuel pool buildings, the turbine buildings and the domes. Holtec has advised us that the timing for this heavy demolition on site would be late 2023 at the earliest.

Next slide, please. So here's the -- here's the update. So what -- what we did was, as I mentioned two meetings ago, we -- we presented our findings as a working group. And one of those recommendations was to issue a request for proposals that would procure environmental consulting services to develop a community air monitoring plan, or C.A.M.P.

So working with our state agency partners, we put together an R.F.P. and that R.F.P. was issued on January 9th of this year. We await responses. As you can see here, we have a timeline for next steps. So our proposal deadline is March and then we will work from there. Tom, that concludes my presentation.

CHAIR CONGDON: Thank you very much. And I just want to add a little bit. I've -- I've spoken with a few members in the local community to better understand ongoing concerns that parents may have. I heard that some parents in the -- in the school community would like to have more access to experts and be able to interact and -- and ask questions of our experts.

And so I've spoken with -- so Superintendent Hochreiter and we've agreed that will take the -- the working group that we've established as part of the D.O.B. and have a number of additional meetings of the working group in the school community working together with the school district in the local P.T.O. to make sure that we invite all the relevant families who -- who want to come and be a part of the public forum, where we'll give updates on the C.A.M.P. activities and our -- our progress there.

But also make available the experts involved in developing the C.A.M.P. Eventually when we have the consultant -- including the consultant, Dave would be a part of that as well as members of staff at D.E.C. and D.O.H., and our own agency the

D.P.S.

So we look forward to having those and having an exchange with the families attending the school and making sure that we are addressing the concerns and answering the questions that they have. Yes.

MR. WEBSTER: Have a quick question for you. I used to do this a few years ago, and one of the things we used to try to do is have a baseline prior to the activity commencing so that, you know, you can tell, you know, set limits -- actual limits in advance in activity commencing.

It seems like here the monitoring program is going to commence pretty tight on the activity commencing. So what's the plan for baseline? You're just going to take readings when the wind is blowing the other way?

MS. TURTURRO: Readings when the wind is blowing the other way?

MR. WEBSTER: In other words, how do you -- when you -- when you get the readings, how do you know -- how do you know -- well, how do you know what ... we used to use the baseline to set the actual limits, right?

MS. TURTURRO: So a few things. Once we get the environmental consultant on board, we will be talking to them about gathering as much information as they can to determine that baseline. There is a lot of information that is currently collected, both on site through the Reuter Stokes monitors that are around the property.

We have many monitors around inside the fence line as well as just outside the fence line. So we will be working with our environmental consultant to be putting all that information together.

MR. WEBSTER: But you also have dust, for instance.

MS. TURTURRO: We also have dust.

MR. WEBSTER: Do you have like measurements of particulates in the air?

MS. TURTURRO: There is -- there are monitoring networks within the fence line at -- at the Holtec site. Rich, can you talk to that?

MR. BURRONI: We have continuous air monitors. We can use their samplers within the property itself, that's what we're asking?

MR. WEBSTER: For the continuous --.

MR. BURRONI: We did work with D.E.C. on dust mitigation controls for -- for demolition permits. So we're not allowed, right, to transport any dust beyond the site ground. And that's written in the rule. We've worked with the D.E.C., we work with the village, right? So that's all on a decom work permits.

CHAIR CONGDON: So it's -- it's a belts and suspenders approach here. So we've got the onsite inspector. We've got the dust control mitigation measures, there's the monitors on site. We're going to set up the ring line fence monitors as well.

MR. WEBSTER: Correct.

CHAIR CONGDON: But your point is taken with respect to the sites, off site. And it's understood in the scope that baselines would have to be established by the consultant.

MR. WEBSTER: Right. I'm just saying though, if we -- if we get to right up against the commencement activity, it makes gathering a baseline very hard. In other words, you know, if you're -- if you're -- if you're six months ahead, if you're -- if you set up your monitoring network six months ahead

of the heavy demolition, then you have six months to get a baseline.

CHAIR CONGDON: Right. Uh-huh.

MR. WEBSTER: If you set up two weeks before the sort of heavy demolition, then you only have two weeks of baseline.

CHAIR CONGDON: Yeah.

MR. WEBSTER: And especially if that is around December, when the schools break, I think you might see an invalid baseline.

CHAIR CONGDON: Well, those would all be factors that would have to be considered by the consultant. And you know, we can have that discussion with them with the working group.

MR. WEBSTER: Right. But I guess what I'm saying, Tom, is that December doesn't look like a great time to commence.

CHAIR CONGDON: Well, we're doing the best we can and we'll have them online as quickly as we possibly can. If we can beat the schedule, we will.

MR. WEBSTER: Right.

MR. BURRONI: They can help somewhere. We do have air sampling units outside

the plant within two miles and beyond. So we can look at that data and set up a baseline.

CHAIR CONGDON: And the D.O.H. has air -- air monitors as well and so we'll pull everything that's obviously already in existence, of course. Okay. Next slide. So we want to move on now to the topic of today's presentations. And we're going to begin with our community guest speakers.

And I want to introduce Michel Lee, an attorney by training. She works in a pro bono advocacy capacity with a number of environmental groups in New York and is speaking here as a member of United for Clean Energy. Michel serves on the board of the nuclear information and resource service, an industry watchdog organization based in the Washington D.C. area.

She's a member of the Nuclear Consulting Group, an international interdisciplinary think tank, with focuses on a wide variety of issues which intersect with nuclear matters, including public health, safety and security. Michel is also joined by Dr. Cathey Falvo, who is a retired pediatrician.

During her career she was professor

and chair of Global Public Health at the New York Medical College School of Public Health in Valhalla, and an adjunct professor of pediatrics at New York Medical College. She also worked as a chief pediatrician at the Family Neighborhood Health Center in Ossining.

In addition, she served as assistant director of the Child and Youth Project at the Roosevelt Hospital in New York City, and from 2011 to 2013 as the president of Doctors For The Environment. So with that, I'll turn it over to Michel who is joining us via zoom. Michel?

MS. LEE: Yes, I'm trying to -- I don't see anything on my screen that allows me to get in.

CHAIR CONGDON: We see your slide and we can hear you.

MS. LEE: All right. All right. Well, I'm not sure if there's a camera, but I guess my little slide.

CHAIR CONGDON: If the audio visual tech support could -- I'm sorry, Michel, I'm sorry for interrupting. I'm sorry, we're -- we're getting a little bit of an echo. So we're going to first ask

our audio visual team to assist. If you'll just bear with us one moment.

MS. LEE: Hi, there. I think we were going to have Cathey speak before me if she's available.

CHAIR CONGDON: Okay. And -- and the echo is improving, so Cathey, you'd be welcome to go ahead and get started.

MS. FALVO: Okay. So you have to give me one minute -- two seconds. Okay. We have the video and we have that and I just need to find my crib notes.

CHAIR CONGDON: Cathey, I'm sorry. If you just pause for a moment, we're going to continue to work on -- on this echo that we're experiencing.

MS. FALVO: Okay.

CHAIR CONGDON: Dr. Falvo, could you please just say a few words so we can test the -- the situation.

MS. FALVO: Good evening, everybody. I'm very glad to join you.

CHAIR CONGDON: Okay. I'm sorry, Dr. Falvo, we're still experiencing a bit of an echo. Dr. Falvo, if you could please turn the volume on

your computer down, that will probably help the situation.

MS. FALVO: All right. I'm not sure I know how to do that but let me see here.

CHAIR CONGDON: It's already improving.

MS. FALVO: I haven't done anything. I have absolutely no -- have no idea how to do this.

CHAIR CONGDON: Okay. Dr. Falvo, we'll give this another shot. Go ahead, and please begin.

MS. FALVO: Okay. The first thing I wanted to say was, if I use terminology which you don't -- somebody in the audience doesn't understand, please ask. Four years in medical school and a whole lot of time after that I learned an entirely new language and I forget what's medicine and what's English.

So if you need clarifications, pop it in the questions or somewhere. Now, what I'm going to say, when we're talking about regulations, almost all of them are based on an average human male aged 30, 70 kilo.

This is not the audience and

population we're really talking about for something like decommissioning because the people at highest risk from the radiation are not 30-year-old men, unless they're actually in the industry inside. But are the fetuses, the kids and the -- the women or people who might be pregnant and are pregnant, who are at greater risk from radiation and any other toxin in the environment.

And so we have to keep in mind that kids -- particularly kids are really different and not miniature-size adults. And so when we're talking about decommissioning and what's a problem or not a problem, we have to be very careful that when we're looking at regulations, we're remembering they usually generally don't apply to the people of interest.

Now, the other thing about people, any of them at any age, is that while most of us are very much alike, which is how we can do medicine and say this looks like pneumonia and this is how you treat it. And it usually works.

But there is nothing about humans that are absolutely similar across the line in any way even the so-called normal, meaning they're like usual

five year old are different, some the same and very generally very different. So that when we're setting regulatory limits for kids, we need to be very careful to leave lots of leeway about how vulnerable they are.

They breathe more air per body weight than adults do. They drink much more water and consume more food than adults do for their body size. And that's because they're growing. And if we damage them, it's -- you know, potentially 70 or 80 or 90 years of damage. Somebody does something that damages me it's not going to last real long because I'm not going to last real long.

But hopefully the kids will. And fetuses have particular times when they’re very much more vulnerable than other times, so that you really can't say, well, you know, they passed -- the pregnant person has passed some time period and so we don't need to worry. That's not true.

Sometimes earlier in pregnancy is more worrisome, but the whole pregnancy is worrisome in terms of potential damage from environmental things. So what we want to --.

CHAIR CONGDON: Dr. Falvo -- Dr.

Falvo, if I could just -- I'm sorry to interrupt again.

MS. FALVO: That's okay.

CHAIR CONGDON: The echo has returned and so I'm going to ask you to pause a moment and ask our audio team to see if they can correct the issue again.

MS. FALVO: Okay. Okay. I'm now unmuted, does that help? Okay. Can we continue now, or?

CHAIR CONGDON: Dr. Falvo.

MS. FALVO: Yes.

CHAIR CONGDON: Could you please restart? And I apologize -- I apologize to the entire audience for the technical difficulties, but if you could please go ahead and begin again. Thank you.

MS. FALVO: At the very beginning, or?

CHAIR CONGDON: No, I think where you left off, thank you.

MS. FALVO: Okay. So we're on to having established that we're really worried about kids and pregnancy and not the average 70-kilo man the regulations are based on. Regulatory levels

should have a margin of error built into them. That's not true of all of them. The newer ones do have some margin, but the older ones I doubt do.

And the regulations on tritium go back to 1977, I believe, or maybe '71. So I feel a bit of a disadvantage not having been at previous meetings and I don't know what your audience --.

CHAIR CONGDON: I am very sorry, Dr. Falvo. I'm very sorry. I'm afraid we have to pause again.

MS. FALVO: Oh, dear, okay.

CHAIR CONGDON: I'm very, very sorry. Thank you for your patience. Dr. Falvo, could you just give us a test one, two, please?

MS. FALVO: Test one, two.

CHAIR CONGDON: Thank you. Could you do a test one, two closer to the computer, please?

MS. FALVO: Test one, two, three, four.

CHAIR CONGDON: That's much better. Much better, I think we're getting closer to being able to -- to begin again. If the audience could please quiet down so we can restart the presentation.

MS. FALVO: Okay. Are we ready?

CHAIR CONGDON: Dr. Falvo, you are a saint and I really appreciate your patience -- go ahead and please restart.

MS. FALVO: Okay. So I'm not sure what anyone knows about radiation and such, so I'm going to give it, what I hope is a half a minute or maybe a minute. Tritium is in terms of decommissioning and what we're going to do with tritium which is to say the wastewater is the issue at hand that I resist to talk about.

But radiation comes in four different -- several different forms, but four of note for this is alpha and beta which are very, very close and are not very strong. So they don't go through aluminum, they don't go through your skin, at least not very much.

But if you breathe them in or eat them in, they're sitting right there on the surface of the cells in the lung and the gut. So they're a problem not when they're floating in the air, but otherwise. Gamma and x-ray are much more penetrating. And that's not what we're talking about now. So that's not really an issue.

But the way we approach them is very

different. So the alpha and the beta, since they are very close, you have to treat sort of like the bullet of shot of a shotgun. In other words, they send very weak scatter of radiation. While the gamma and the x-ray are more like a rifle bullet, they go straight ahead through.

What this means is that if you protect yourself from breathing and eating, you're not going to be bothered by the tritium in the wastewater, but that's not what happens is it? Water gets into the river. It gets -- it evaporates into the air. It dilutes out some, but it's still there.

And very much like a shotgun bullet, you know, if you get hit, usually, it's not going to hurt a human a whole lot, but it can ... like your eye and really cause havoc. And we don't know. So you might want to be cautious about going -- well, it's not very dangerous, so we're not going to worry, because not very dangerous and no danger are vastly different affairs in human health.

Now, tritium comes from two sources. The major one is power plants, but the other one is formed in the atmosphere and comes down in rain, snow, hail, sleet. And so when we say Indian Point

is not going to add a lot of tritium, however we dispose of the wastewater. It's adding to -- it's got a half-life of 12.3 years I guess, which means that half of it disappears, and then in another 12 years, another half of that half or next quarter disappears.

And 12 and a half years is not, you know, high level radiation, thing that lasts for hundreds and thousands of years, but 12 years is a pretty long time, particularly for a developing fetus and a kid. And we add to that all the unknowns of -- all the other kinds of radiation, some of which will end up targeting the same thing that tritium does and some of it which will target other things.

We don't know anything about cumulative effects, different levels and the cumulative effects of varying radiations that hit us much less those effects were ... other toxins around. And so we really need to try and minimize them as much as possible anywhere. Which gets us to, what are we going to do with the tritium at Indian Point.

And in medicine and particularly in pediatrics, we like to use what we called the precautionary principle, which has a whole lot

different meanings. But what it basically gets down to is how much benefit and had -- are we going to get from doing something.

In this case, either emptying the tanks, the tritium water into the river or evaporating it off into the air, could be probably the two most reasonable ones to think about. And what's the -- what's the harm. Now the benefit is, we get rid of it, we clear off the land. It can get used for something else.

The hazard is much of it, we don't know. But it certainly will increase certain number of cancers and other things that nobody looks at. One of -- I asked the question of a friend of mine who looks at power plant radiation. Has anyone looked at things like diabetes, because as a pediatrician, you've always had fat kids, but we've never really had fat kids with type 2 diabetes.

And all of a sudden, they're all over the place. So is this something from power plants? Is it something from other things in the environment? Is it just a genetic mutation that took place for other reasons? And one of the – meta data that came out of Chernobyl was that there's an increase in type

1 diabetes, which is not type 2.

But the both you lose -- your pancreas loses its ability to produce either any insulin or insufficient. So the -- along with the cancer risks, which we do know a fair amount about, although not everything we'd like. We know nothing at all about chronic disease risks from radiation or pretty much nothing.

And so I think when we're figuring out what to do at Indian Point or any other nuclear power plant. I mean, my first thing would be just don't produce any more because we don't know what to do with the leftovers, but we have to consider which could be the least damaging.

My own feeling is, one of my questions for everybody is, how long before -- once the plant is completely decommissioned, is that land going to lay empty before something is put in there.

Because if it's going to lay empty for a while, one of the options, which is not discussed anywhere, is just leaving everything as it is until the tanks start to leak in which case we must do something. Or until we're really ready to proceed to use the land. Because until we have some serious use

of the land, there's no reason to take the plant apart at all and add these risks.

And it's just possible somebody will find a solution to what to do with this, that's safer in terms of public health and even letting the tritium into the water and into the air. I guess that's all I have to say, actually.

CHAIR CONGDON: So Ms. Falvo.

I was getting a little feedback obviously.

MS. FALVO: Unless somebody's got some basic questions for me.

CHAIR CONGDON: Thank you, Dr. Falvo. And thank you for your patience and bearing with us with the technical challenges. We -- we heard you loud and clear for the second half of your -- of your -- of your presentation. And it was very informative and we really appreciate it.

I'd like to turn it back over to Michel Lee to say a few words. Michel?

MS. LEE: Okay. Okay. So I'm going to just start here by --.

CHAIR CONGDON: Perhaps, Michel, you can just do -- do a testing one, two and we'll make

sure we don't have any audio issues before -- before you begin.

MS. LEE: Okay. One, two, three.

CHAIR CONGDON: It looks like you're muted.

MS. FALCO: No, we can --.

MS. LEE: No. Hello.

MS. FALCO: I can hear you perfectly well.

MS. LEE: Can the D.O.B. hear me?

CHAIR CONGDON: Yes, we can.

MS. LEE: Okay. Got it. I'm trying to get ready.

CHAIR CONGDON: Can you just say testing one, two, please?

MS. LEE: Okay. Testing one, two, three.

CHAIR CONGDON: If you can please lean in and -- and speak close to your computer.

MS. LEE: Sure.

CHAIR CONGDON: And -- and speak up for us, I'd really appreciate it, say again, testing one, two.

MS. LEE: Okay. ... my computer...

Is this better?

CHAIR CONGDON: It is better. And I think if we are all nice and quiet at the -- on the receiving end, we'll be able to hear you. So go ahead. Welcome. Thank you, Michel Lee.

MS. LEE: Okay. I'll talk loud and be boisterous. Okay. I'm going to start by really pushing back on the whole regulatory nonsense.

CHAIR CONGDON: Michel, I'm very sorry, if you can just pause. Did you guys do something different? You started off where we could hear you and then you faded out, Michel. If -- if you can just stay close to -- to your computer. I'm really sorry for these technical challenges. But if you stay close to the computer and speak up, I think we'll be able to hear you.

MS. LEE: Can you hear me now?

CHAIR CONGDON: It's very low. It's very low.

MS. LEE: Well, can you hear me now?

CHAIR CONGDON: That's much better, yes.

MS. LEE: Okay. Okay. Let me try to scoot in a little bit more, I need shorter legs, I

think. Okay. David Lochbaum's presentation made me recall an experience I had when I was a very young lawyer. And I was working very late at my law firm. I'm the last associate there. I worked at a large firm in New York City.

And the senior partner was running around frantically trying to find somebody to do research on asbestos -- what the impacts of asbestos were because a large client of ours wanted to know how much exposure was allowable in the regulation. So the partner found me and I ended up spending an all-nighter and going into the Congressional Record.

And I was young and naive and idealistic and rather appalled to find out that what regulations are based on is what's the balancing a cost benefit is for industry versus human health and the environment. And the question really boils down to how many people is it okay to kill or make sick.

And that's exactly what we have with the new regulations for radioactivity in this country. So the National Academy of Science came out with a very, very important report in 2022. It was called leveraging advances in modern science to revitalize low dose radiation research in the United

States.

So let me just read some of the conclusions of this report. Low dose and low dose rate radiation effects on human health outcome and the biological mechanisms of these effects are not fully understood. There is increasing evidence that low dose radiation exposure may be associated with non-cancer health outcomes, such as cardiovascular disease, neurological disorders, immune dysfunction and then it goes on.

Radiation exposures, like many stressors and injuries get relayed in vivo through shared pathways. Especially along the danger sensing and inflammatory immune signaling cascades that are open to amplification and exacerbation over time. So what does that mean -- and I won’t go on and on and on.

But basically, that means that the -- the regulatory scheme, which not only was focused primarily and derived from young white men, aged 20 to 30, which were the Manhattan project workers, they weren't women, they weren't children, they weren’t babies, they weren't babies in utero.

They were young, healthy white men.

That scheme is still what's in place and I will read the quote from the N.A.S. report. "The U.S.N.R.C.'s regulations for protection against radiation are still based primarily on scientific publications issued in the 1970s." Well, I'm sorry, but there's been a lot of medical development since the 1970s.

There have been whole disciplines that have come into being since the 1970's. You know, particularly with respect to understanding cellular signaling mechanisms and mechanisms that introduce or exacerbate disease beyond the simple metric of the issue of cancer.

And those effects, which in the literature are now being called non-targeted effects, are -- are considered particularly worrisome with low level radiation, even more so than high level of doses. For the simple reason that if you have a high dose of radiation, your body has attempts to kill off the cells, you know, you do have cell mutations and that can lead to cancer.

And the cancer risks are far higher for windows of vulnerability and for vulnerable populations. But -- but if you have a cell death, the cell's gone. When you have low dose radiation,

especially something like tritium, which again is a beta emitter, which -- which doesn't deliver its energy far, so it's just delivering its energy into the cells of the body into the -- into that near area of the cell.

What you can have is not necessarily cell death or apoptosis. But you have a cell that's now stressed and it's signaling to the other cells in the body. And this is now a recognized major initiation for a whole host of chronic diseases.

None of that is considered by the regulation. The regulations do not focus on internal emitters, right. They focus primarily on what people -- again, what the Manhattan Project workers were exposed to, which is gamma radiation, which is rays.

So with tritium, it's water. It's radioactive water. If you ingest it, it goes into your body. It goes into every cell that water goes into, so that obviously includes the eyes, the mouth, the heart, the ovaries, the testes, the fetus, it goes to the umbilical cord. For pregnant women, it's in the breast milk.

So these are not inconsequential risks and they're not assessed risks. So with all due

respect, the regulations are based almost exclusively on reported releases. So that means they're not independently validated over the years.

This slide that I have up is a slide from the N.R.C., which related to an issue that many of you are aware of, but some of you may not be. Which is legacy leaks that were going on in the -- into the ground water at Indian Point.

So the regulation and the inspections did not pick up these leaks for years and years and years. They were going -- they were basically leaching out of two different spent fuel pools creating two plumes that eventually joined into one plume. And those releases aren't considered in natural effluent reports because the reactor operators don't report things like that, right.

It became evident because it was basically found out by happenstance at Indian Point and then there were years and years of, you know, investigation and New York, is -- is well aware of this. And ultimately, the report that was conducted by G.Z.A., which was contracted for by the operated plant Entergy, determined that the solution to the releases that were going down under the plant into

the groundwater into the Hudson River that the way to resolve that is by natural attenuation.

Which basically just means it goes into the Hudson River and, you know, we shrug our shoulders. So you also have the releases that are going to be continuing for God knows how many years from many, many varied systems, including piping that is not -- that cannot be identified because it's very deep down.

A lot of this piping carries radioactive water, but it's not -- was not considered essential to the safety system of the plant that would prevent a meltdown. So the N.R.C. regulations did not require those pipes to be able to be inspected.

And that pipe -- that piping is there, nobody has an idea of how much of that piping is going to be leaking, some of it is going to be underneath the structures at the site. So the question we have here with respect to the release of the radioactive water, which is primarily in the spent fuel pools and will not just be limited to tritium, but will include a host of other contaminants that are in the in the spent fuel.

And while much of it may be able to be taken out by resins and treated, not all of it is. So the question is, all of that radioactivity is now contained it doesn't have to be released. It can be kept on site, whether that is through tanks or through keeping it in a spent fuel pool.

In other words, doing the treatment and then putting it back into the spent fuel pool. You know, those are options that -- and from my perspective and it's in the perspective of public health and the environment, I think is the -- the precautionary approach and is the way to safeguard the community.

And let me just add, this is a community that is an environmental justice community. Peekskill is and the Buchanan area as a site of old industrial facilities. And there was a study done in 2010. Wait, I'm looking at it the wrong ... Just one minute. It's called the Community Based Environmental Justice Inventory.

So that was conducted by Peekskill Environmental Justice Council, Clear Water and Citizens for Equal Environmental Protection. And it identified many, many prominent sources of pollution

within the Peekskill area.

So that includes -- I won't read through the whole list, but it's a number including Wheelabrator, which is a municipal solid waste resource recovery facility that burns all of Westchester County's garbage. And it's characterized in -- by New York as a toxic release facility.

So when you're looking at what the impacts on the Hudson River, which is a polluted river, New York has done, you know, tried -- worked for years to decades, trying to clean it up. But it's -- it's a super fund site because of the P.C.B. pollution from decades ago.

See, what you have to really consider is the cumulative impacts on humans and on the river of all of the radionuclides that have been released, legacy radionuclides, radionuclides that Holtec wants to release into the Hudson over the next couple of years.

And all the future releases that are going to -- that are basically still leaching down, down below the site, and now all being directed into the Hudson River. And -- and so if your kid is swimming and playing along the shoreline or you have

people fishing, a lot of people fishing for sustenance, food, somebody's going to be catching the wrong fish and feeding it to their family.

Some little girl is going to be swimming and taking the wrong gulp of water and the D.O.B. can prevent that. You know, I really think this is the time for the D.O.B. to step up to say stop. It's not necessary to release this water.

It's a benefit to Holtec because they are -- can make more profit to do it cheaply, right. But Holtec took 2.3 billion dollars, which was in a trust fund, that New York ratepayers paid for the decommissioning and cleanup of this site.

And the leftover money from decommissioning and waste storage was supposed to go back to the ratepayers. But it's not going back to the ratepayers. It's going to be pocketed by Holtec. So the cost benefit analysis here is all of the cost for any kind of damage to the environment or to human beings from dumping more radioactive contaminated water and -- and chemically contaminated water into the Hudson.

All the costs goes onto the public. And all the benefits would go to Holtec. And in my

mind, that is not a public policy that should be allowed. Thank you.

CHAIR CONGDON: Thank you, Michel. I really, really appreciate your patience with us with the technical problems. We heard you loud and clear and we really appreciate your presentation. Thank you. Now, I'd like to turn it to Dave Lochbaum.

Dave, as folks know, is our independent nuclear engineer expert on the D.O.B. And Dave has also looked into this issue, what to do with the cooling water, and has a presentation. Go ahead, Dave.

MR. LOCHBAUM: I looked at four options that have been used in the past to dispose of or handle radioactively contaminated water. Slide Three will start. As this table shows, over the last 17 years, 99.99 percent of the radioactivity released to the water has been tritium.

The other materials have been largely filtered out or demineralized out. Slide Four just provides some basic information about tritium. Tritium is an isotope of hydrogen. A normal hydrogen atom has one proton and one electron. Tritium is a hydrogen isotope that has one electron, one proton

and two neutrons.

That isotope is unstable and tritium seeks stability by emitting a beta particle as others have said. A water molecule consists of two hydrogen and one oxygen atom, either or both of those hydrogen atoms in a water molecule could be tritium.

Tritium is the primary component of radioactive releases to the water because it is very difficult to remove by filters and demineralizers that are -- they are used to clean up other water before it's discharged.

Slide Five shows the tritium has a half-life of 12.3 years. Half-life means if you have 100 units of tritium today, 12.3 years from now you'll have fifty units. In 25 years -- 25 units after 24.6 years and so on. Slide Six is a busy slide, but it shows E.P.A.s limits on radioactivity in drinking water.

For example, tritium's limit is twenty thousand picocuries per liter, while strontium 90's limit is eight picocuries per liter. And the limit for iodine 131 is only three picocuries per liter. Slide Seven tries to explain why radionuclides have different limits.

Tritium has a half-life far longer than its residence time in the body. So the bullets, whether they're shotguns as Dr. Falvo said, or rifles, they're -- they're not in the body when -- when those rifle shots or shotgun shells go out because it's in the body for a month versus 12.3 years for those ammo to be discharged.

Whereas iodine 131 could be absorbed by the thyroid and stay in the body for far longer. So because its residence time in the body is longer, E.P.A. poses a lower limit to manage that hazard during that time.

And like I said, Slide Eight basically lists the four options I looked at that had been used in the past. And I tried to look at what are the pros and cons of each of those four options. The four options I looked at were discharge to the river, evaporation into the air, shipment off site for burial and on site storage until the radioactivity decays away.

Slides Nine and Ten try to convey the fact that in all four options the water is treated before it goes into the river, goes into the air, goes into a place out on Idaho or whatever. It's not

just packaged up and sent out, it's treated. And then one of those four options takes place.

Slide Twelve and Appendix B provide the amounts of radioactivity, amounts of tritium that have been discharged from Indian Point and other pressurized water reactors. Indian Point has -- typically has higher amounts of tritium released into to the water because Indian Point units are typically larger than many other plants and therefore, they use more water and generate more tritium that must be handled in some fashion.

Slides Thirteen through Fifteen are from the annual reports that must be submitted to the N.R.C. by each plant owner. And they show that the federal limits -- there are a lot of federal limits on radiation. The N.R.C.s federal limit is three millirem to the public from radioactivity released to the water.

E.P.A. has a limit of 25 millirem from all sources, water, air, and so on. And so it's kind of difficult to navigate all the speed limit signs that the federal government puts up on radiation. In the past, as Slide Sixteen and Seventeen show over 150,000 gallons of radioactively contaminated

water was discharged into Long Island Sound from the Shoreham Nuclear Plant after its brief cameo appearance as a nuclear power plant.

Slides Eighteen to Twenty explain how the spent fuel pool water from the unit one reactor at Indian Point was discharged to the Hudson River after all of its fuel was removed from the pool, moved into dry storage.

Slide Twenty-one cites a N.R.C. response to Ulster County Legislature last November. It basically says that the federal government, either E.P.A. or N.R.C., has jurisdiction over radioactivity released to the air and water.

Having said that Slide Twenty-two then explains why Pilgrim has different rules. Pilgrim is a nuclear power plant in Massachusetts, where discharge of this spent fuel pool water may not be an option. The state -- Massachusetts Department of Environmental Protection and the E.P.A. issued a water permit in January 2020 that disallowed discharge of spent fuel pool water into the bay.

That's if tritium is considered a pollutant, which folks up there believe it is. Slide Twenty-three in Appendix D, to my slideshow,

basically show that the terms and conditions of the agreements for the closure of Indian Point and the transfer of the ownership from Entergy to Holtec retaining the discharge permit that had been used for four decades that allows spent fuel pool water to be discharged and it was from unit one.

Slides Twenty-four and Twenty-five attempt to show how the owners determine and the N.R.C. inspectors verify that the release limits are met. It's a fairly complicated calculation. And in my career, I'm glad I never had to do that because I never got paid enough for doing calculations.

Slides Twenty-six to Twenty-eight -- one of the things that was raised by Dr. Falvo, and I -- in my research, I went to the same place, was bioaccumulation, you releasing tritium largely, is it cumulating an algae and then crustaceans, fish and then humans.

And I didn't find many reports on that. There was a Canadian study and a French study that looked at it and said that because bioaccumulation is not properly accounted for in the regulations, the health consequences could be ten times higher than are established by the current

limits.

So I don't know one way or the other. That was a Canadian study that said it may be the limits. Bioaccumulations makes things ten times worse than estimated. So in slides Twenty-nine and Thirty, I said well, if it is ten times higher, does that put the releases from Indian Point above the federal limits?

And what the data shows is they're still less than -- even if you multiply by ten, they're still less than five percent of the federal limit. Slide Thirty-one summarizes the pros and cons of discharging the water to the river. Slide Thirty-three, the example I used for evaporation to the air was Three Mile Island.

There was a -- the City of Lancaster, PA got an injunction that prevented that owner from discharging radioactive contaminated water to the Susquehanna River. So the company brought in this device that evaporated five gallons per minute into the air. It wasn't a little bit of water. It was like 2.5 million gallons of water generated by that accident.

And Slides Thirty-four and Thirty-five

show that that 2.5 million gallons contained quite a bit of radioactivity, all forms because the fuel -- the core melted down and fuel -- radioactivity that used to be in the spent and the fuel was now in the water.

One of the things that was learned from -- well, it was known before, but it was demonstrated by ... was that anything that gets evaporated to the air, could fall right back down to the ground in rainfall, get into the Susquehanna River or into the land and around the plant.

Slide Thirty-nine cites a 1987 study by the National Council on Radiation Protection & Measurements that looked at evaporation versus just discharging it to the river. They said, the dose to the public from the evaporation was about 300 times higher than if you just discharged it to the river, 300 times higher.

Slide Forty-one provides the pros and cons of the evaporation method. I'm not a big fan of evaporation. Slide Forty-five showed another example that was used at Vermont Yankee where about the same amount of about 2,000,000 gallons was shipped to Idaho and buried in Idaho, near a city called

Grandview.

250,000 gallons came from the spent fuel pool. 9 times as much came from the suppression pool. Vermont Yankee is a boiling water reactor, it has a suppression pool. Indian Point does not have that. Indian Point has other tanks and other structures that hold contaminated water in addition to spent fuel pool.

Slide Forty-nine show that the N.R.C. does not consider the potential dose to the public from transport of 2 million gallons. It wasn't one tanker car. It was over 100 tanker cars to get that water to Idaho. The N.R.C. assumes there's zero risk. They didn't even look at it. So they didn't calculate what the risk may or may not have been.

Once it got to Idaho, Slide Fifty shows that the estimated dose to the public was 1.5 millirem per year, which is far below the E.P.A. limit. But Slide Fifty-one shows that that 1.5 millirem is 483 to 770 times higher than the dose to the public from releases to the Hudson River by Indian Point over the years, 2005 to 2019.

And Slide Fifty-two poses the question of whether burying Indian Point’s contaminated water

in Idaho poses an environmental injustice issue. Slide Fifty-three provides the pros and cons of transport for burial option. For the storage on site, example, I -- the most recent example is Fukushima, when it's accident in 2011 provided a use of tanks, lots and lots of tanks for storing contaminated water.

Slide Fifty-six showed the plant before the accident. Slide Fifty-seven shows after the accident. I wish I was in the tank selling business because I would have made a fortune on all those tanks that were built up there in the upper part of the tank. Slide Fifty-nine, shows that it took -- it didn't take very long at all, less than 30 months, for those tanks to leak and have water find its way into the Pacific Ocean.

The more tanks you have, the more likely you are to have leaks. Slide Sixty-one in Appendix C show that this isn't just a Japanese problem. Here in the United States we've had all kinds of problems with tanks that have leaked. Vermont Yankee before it shut down leaked 180 -- excuse me ... leaked 83,000 gallons of contaminated water into the Connecticut River.

Over 11,000 gallons leaked from a storage tank in St. Lucie in Florida and so on. Tanks -- tanks are not very good for storing water for any period of time. Slide Sixty-five in Appendix D would also tend to suggest that long-term storage of contaminated water on site is contrary to the explicit language of the Public Service Commission order authorizing transfer of Indian Point from Entergy to Holtec.

Entergy was planning to wait five decades before they began decommissioning the site. Holtec proposed a more rapid schedule. The P.S.C. order found that timely decommissioning and site restoration was "Unquestionably in the public interest."

Slide Sixty-eight provides the pros and cons of onsite storage of contaminated water. Slide Sixty-nine goes back and lists the four options again. All four options have been used. No option -- none of these four options is risk free. And also none of the options is so risky that it couldn't be used again.

But of the four options, I personally believe that the discharge to the river is -- is the

best way to manage the hazard that is present to harm as few of people as possible. But also realize that that's just one vote. But that'd be my vote. Thanks.

CHAIR CONGDON: Thank you, Dave. I want to open it up to the D.O.B. members, if there are any questions from any of the presenters, Michel, Dr. Falvo or -- or Dave Lochbaum. Yes, Richard.

MR. WEBSTER: Yeah, I mean, so I want to explore these two issues actually one is the accumulation issue. And then the second issue is, what does -- what does Dr. Falvo think about storing on the sites and for Dave, for the volumes that leaked out of the tanks, that was a lot less than the whole amount, right. So those are my questions.

CHAIR CONGDON: So maybe we'll start with Dr. Falvo, if we can attempt for another audio experience. Dr. Falvo, are you with us and I think the question from Richard Webster is what your views are based on Mr. Lochbaum's presentation on the fact that tanks can leak. And indeed the -- the fact of the spent fuel pool water having leaked in the past --

MR. LOCHBAUM: And also the

bioaccumulation.

CHAIR CONGDON: -- and -- and also the bioaccumulation aspects. But Dr. Falvo's views on tank storage onsite. Dr. Falvo. I believe Dr. Falvo is unmuted.

DR. FALVO: Am I unmuted now?

CHAIR CONGDON: Yes, we can hear you. Thank you.

DR. FALVO: Okay. As far -- I think storing onsite unless we have something really, really useful to the land for a while, it may give us an answer that's better than what we have now. Hopefully, somebody out there or somebody's, because this is going to be a group effort, are actually looking at other ways than those who already have to deal with this issue.

Because Indian Points here we -- the U.S. has a moderate number in terms of World Nuclear Power Plants. France has many more than we do as far as I understand. And so this is something that not only do we have to answer for Indian Point but needs an answer for the world. And so hopefully, it's being looked at.

And if we can sit tight for a while,

even if they leak a little bit, it's less than what's going to a big dump and see what happens and balance the two. We have a really good land use proposal and how it's going to be done. Not just would it be a good idea to put up solar panels, but an actual plan of how to do that, which will work most efficient way.

And the tanks start leaking more than a drop or two. Then we can look at the options at that moment and decide what to do. But it doesn't seem to me even though all due haste has been decreed by the state. That all due haste means right now today.

And dumping that much water into the Hudson which is already thoroughly polluted. Along with everything that's coming out of the sky in terms of tritium does not seem like the best idea for human health. I certainly would not want to see us shipping it. The dangers of shipping are way too great.

And it's not very fair to dump it all in Idaho or anywhere else, when we've created the problem for ourselves. They may think it's a good idea because they get some money out of it. But that

should not be the main focus.

CHAIR CONGDON: Thank you --.

MR. WEBSTER: ...

CHAIR CONGDON: Yeah. Sorry, go ahead, Richard, sorry.

MR. WEBSTER: Yeah, Cathey quickly one on bioaccumulation of tritium in the same camp as ...

DR. FALVO: It's mostly unknown, other than -- I think, two things. One, if it's left floating around and it hits into hard objects like steel, it changes the radiation picture entirely, not for the better. But it seems that it really will bioaccumulate in a more toxic form when it ends up in the bottom of the river.

And it will fall. It will end up there in some fashion or other part. And clearly all these things bioaccumulate although whether the repeated exposures cause cancer or something else, I don't think we have a clue at the moment.

CHAIR CONGDON: Thank you. There was another part to the question to Dave. And then I think Senator Harckham has a question next.

MR. LOCHBAUM: The question was the -- the leaks from the tanks have been pretty small. I

2/2/2023 - Indian Point - 21-01188 would cite Oyster Creek which put 130,000 gallons into Barnegat Bay. Every shift they recorded water inventory. They saw it drop quite a bit and they said that must be wrong. So they changed the math, just redo for the previous shift's number until half the tank was in the bay.

New Jersey was not real happy about that, but -- so yeah, it's -- it can happen. I don't know where those guys are today, but it can happen again.

CHAIR CONGDON: Senator Harckham.

MR. HARCKHAM: Thank you very much. This is a general question, I don't -- I don't know that anyone necessarily has the answer right now. But according to the slide, when Indian Point Unit One was taken offline, that water was treated and released into the Hudson. Do we know if anyone did any sampling or took data, the N.R.C., the E.P.A., D.E.C. Can we access that data and what did it show?

MR. LOCHBAUM: The data does exist. I have looked at it. It was in one of my slides. I forget what the numbers are. But there was, it did show an increase when that water went out from -- from unit one. But it was again, still well below

the federal limits. It was like 2008 timeframe.

And it was still below the federal limits by, you know, less than like 5 or 6 percent of the federal limit. And I'll -- I'll get you --.

MR. HARCKHAM: The limits that I believe the doctor or that one of the speakers was referring to went back to the Manhattan Project. So there weren't necessarily limits based upon what we know from medical health today. I think my suggestion would be, because we do have that data and that is important for the discussion.

Whatever is decided, I think we should -- that might be something we want to post on the website for this group, just so people have access to that data.

MR. LOCHBAUM: That's a good point. And the other thing I'll add to that is Michel's comment about the water that leaked out and went to the plume, that data exists also. And I put that into the ... the stuff that went out from unit one, the stuff that leaked out from units one and two. So we'll get both that data.

MR. WEBSTER: ... so it seems to me that there were four sources of tritium, right.

There was the -- there was the -- the Indian Point one leaking spent fuel pool, which leaked both tritium, along with strontium, cobalt and other heavy isotopes. And those made their way -- I mean, they're still making their way to the river, right?

Then there was the actual treated Indian Point one tritium discharge and now we're talking about -- and then there was the operating reactors tritium discharge. And I think what we know is, I mean, obviously, taken together, that's a few sources.

I think we know that the environmental monitoring program didn't alarm during that period, right.

MR. LOCHBAUM: That's right.

MR. WEBSTER: And I guess I would just say my concern here is that we're -- we're focused on tritium, but I'm actually more worried about those heavy isotopes that are coming through the groundwater. Because those ones do bioaccumulate and they mimic -- they mimic micronutrients in the body and are deposited in the bone and ...

So -- so you know, although tritium is an important issue, I think we shouldn't lose sight

of the fact there are other issues and there are other sources.

CHAIR CONGDON: Thank you for that. And to the senator's question about what monitoring data exists. We'll get that posted on the website. Dave, you can help us consolidate that. And to your point, Richard, you know, I think, even though those releases are through the groundwater, there is at least some data on monitoring of organisms as well.

And so that would also be informative data that we should collect and provide through the website. And I know Assemblywoman Levenberg has another question. But I think Dr. Falvo may have raised her hand and wanted to chime in on this discussion. Dr. Falvo?

DR. FALVO: Yeah, what I really need to emphasize, everybody talks about meeting or being below regulatory limits. But those are based not on the vulnerable populations at all. And so while we feel very nice that we're below regulatory limits, as a pediatrician, I'm really unhappy.

Because my kids and their mothers and the forming kids are not -- probably not at all protected by these levels. And we don't know because

nobody's willing to study it for a whole lot of reasons, some okay and some not.

So I think we -- we should not be too complacent about meeting regulatory limits, they're a minimum standard at best. Thank you.

CHAIR CONGDON: Thank you, Dr. Falvo. Dave had a response?

MR. LOCHBAUM: Yeah. I agree with Dr. Falvo. One of my other non-paying jobs is I'm on the board of advisors for the Gender and Radiation Impacts Project which is looking at disparate effects on human life for same exposures to radiation.

The data shows that for same exposure to a man, a woman suffers like two to four times as much health consequences. Now, young girls almost like ten times greater health consequences.

MS. FALVO: Yeah.

MR. LOCHBAUM: Which suggest strongly that the limits, as many people speakers have said, are set up on a reference man, which for many years was me. But is not protecting -- it's not the bounding individual. So G.R.I.P's effort to try to do the science, change the regulations so that all people are protected equally, not everybody subject

to the same limit it doesn't protect. Thank you, everybody.

CHAIR CONGDON: Assemblywoman.

MS. LEVENBERG: And I guess to that point, and I appreciate all the input that we had from the various speakers. You know, I think that this group is looking to make sure not that we meet standards, but that we actually protect health and human life here in this area for those people who live here.

So for us to be able to figure that out I don't know how -- it's not that easy. But to the point of, you know, if we have information going back for many years from Indian Point when it was operational and when I.P. One shut down, can we look at what the impacts are of bioaccumulation.

Can we look at -- again, I can't remember if it was Dr. Falvo or Ms. Lee, who mentioned that ... low levels of tritium might be worse than the higher levels and maybe that's not what -- so that's not necessarily what's important. Not even mentioning the point that you just made Dave about, you know, some of the impacts that are on -- on different people.

But the other question that I had about as we're sort of moving forward to figure out what to do with the water. And if one of the options is sort of, you know, we'll wait and see, we'll leave in the tanks. How many tanks would it take, would the water in those tanks that -- that ... be treated.

And -- would it be treated, how many tanks would it take to hold that water on site and could you just remind us again, how likely it would be until leaks were to be likely -- like, yeah, how likely would it be till we start seeing leaks?

MR. LOCHBAUM: Some past experience is that the leak occurred the first time you fill the tank because they lost track of the level indication and they just overfilled the tank. So it leaked the very first time it was filled because the level indication gave a false reading.

And that happened more than once. You think it shouldn't happen more than once because lightning may only strike once, stupidity strikes like a jackhammer, sometimes. But others have taken longer than that, but it -- like I say, sometimes the very first time you fill a tank, it's -- they overflow it.

CHAIR CONGDON: Dave, did you look at, based on the millions someodd gallons, how many tanks that would take?

MR. LOCHBAUM: I did not because it depends on the size of the tank, right.

MS. LEVENBERG: Would the water be treated if it were --

MR. LOCHBAUM: I'm sorry, say that again.

MS. LEVENBERG: If the water were to be waiting in tanks until some better solution were to come up -- to arrive would that water that's in those tanks to be treated?

MR. LOCHBAUM: Most likely, yes. And Richard, Cathey and I had a discussion earlier this afternoon and I have some more homework to go back to look -- there are ways to remove tritium from water, they're very expensive. But there may be ways for having D.O.E. pay for that.

MS. LEVENBERG: Where does it go?

MR. LOCHBAUM: You're not going to like this. It's used to make nuclear weapons, have even bigger bangs.

MS. LEVENBERG: Uh-huh.

MR. LOCHBAUM: So you wipe out entire communities, not just the water.

MR. HARCKHAM: That's why they call it the H bomb, by the way.

CHAIR CONGDON: I believe Michel Lee may have had her hand up for that part of the discussion. Michel, did you want to say something? Hi, Michel, I think you just need to unmute.

MS. LEE: Can you hear me now?

CHAIR CONGDON: Yes, we can.

MS. LEE: Okay. I just want to emphasize again that the regulations are not validated by actual studies. And that is what the National Academies of Science has said in its study last year. So we can talk from today until, you know, 2090 about what, you know, regulations and what this, you know, was released at what date. A is only reported, what -- what the operator reported.

We know that the N.R.C. did not regulate much of -- does not require reporting of underground leaks or leaks from systems that didn't rise to a certain level that was identified by the operator. You have a whole area of a pollution that is effectively has not been regulated and -- and --

and level of regulation that exists is based on science that's 50 years old. You know, the -- the -- the emissions in are also, again, cumulative. It's all of the tritium, all of the other radionuclides, all of the other pollutants in -- in the area including the -- the in -- that big incinerator.

And those things collectively are what are going to harm human beings and what are going to harm the -- the -- the ecosystem of the river, which is already a -- a superfund site. So I really am -- am perplexed to understand this discussion because it's weighing public interest, which is clearly don't -- don't release more toxins into this environmental justice community, into this already damaged, contaminated river against what Holtec and its desired profit is out of the 2.3 billion it took from New York.

It put -- did not put one cent of its own money when it -- when it took over this site for decommissioning. And -- and from a cost benefit analysis, you're putting all of the costs on the public and all of the benefit on Holtec.

CHAIR CONGDON: Thank you, Michel. Dr. Becker had a comment, and then, John Sipos, I

believe. Dr. Becker.

MR. BECKER: Thank you, Tom. I'm the supervisor of the town, and I'm also a doctor. And I also trained at New York Medical College. And you know, you can get snowed a lot by numbers. And here, the bottom line is there is no safe level of nuclear radiation.

Guidelines are established, as was said earlier, based on people's best guesstimate. The problem with radiation exposure is that you get it from multiple venues. So you may get it from the river in small amounts. But you have a problem, you're going to go for an x-ray, you're going to get some radiation there. You're going to get on a jet plane and take a trip, and you're going to get radiation there.

And all those radiation doses are cumulative. Cumulative in the individual, cumulative in their genetics that will go generations. It hit -- we do not know the effects of dumping this in the river, both short term and long term, and we won't know until we make the mistake.

This stuff does not belong in the river. You presented four options, I guarantee there

are more. There may not be now tonight, but there will be in the future. And if the environmental impact to this local community is just too extreme and it's on top of as -- was mentioned earlier, this toxicities from other plants in this community. We already know that there's strontium in the -- in the ground. That was reported years ago.

So I think that when you start to say this is a safe level, you know, you can look at the water. I spent a lot of my time on town water, and you'll read about the safe levels of lead. But the safest level is zero. And so all water supplies try to get it as close to zero.

We need the water, we have to get it to you by pipes. So there is going to be some lead in it, but we try to minimize it. And adding toxic chemicals without knowing the level, even if it appears dilute, some of it will filter down into the muck. Some will live in the fish that we eat. Some will end up in the ocean.

There's got to be a better alternative. So at least I think the position of the Town of Cortland would be not to dump it in the river and to wait until there's a better solution. Thank

you.

MR. SIPOS: Tom, did you have something or?

Thank you. Dave, you mentioned that you're also working with another group looking at standards. I'm wondering if you could share a little bit more about that. And I also would like it if you could just confirm my understanding that these standards, that this 20,000 Picocurie standard that we've been talking about, that that is a federal government standard.

MR. LOCHBAUM: Yes, that -- to answer to that question, it is. As far as the work I've been doing for GRIP, I researched the reference man, which started out as a standard man, and then morphed into the reference man.

And one of the things I -- I still owe GRIP some more work on is, in the early eight -- 80s, the Nuclear Regulatory Commission revised the regulations for occupational exposure of workers. They were the same for men and women.

In the early 80s, the N.R.C. changed it, so that women who were pregnant, wanting to become pregnant would have a lower limit if they --

they announced their pregnancy. I wanted to understand why that happened, because if you live outside the fence and don't work for the company, it's the same limit for men, women, pregnant women, whatever.

So I wanted to understand what -- what the science was that allowed that change to protect nuclear female workers, but not community members who are female. So I want to understand that -- that there may be some leverage there. What was the science ... that's some work I need to do for GRIP that may have some relevance here as well.

MR. SIPOS: And when you say G.R.I.P. is looking at this issue, has G.R.I.P. reached out to the federal regulatory bodies that have set this standard?

MR. LOCHBAUM: G.R.I.P. -- G.R.I.P. is smarter than that. G.R.I.P. went worldwide. G.R.I.P. is working with the United Nations. Mary Olson, the Executive Director, has made several presentations to the U.N. Commissions that are looking at this, who agree, and it's a lot of their research that shows that young girls, females are more -- have more consequences from the same

exposure.

So it's -- they're -- they're not wasting much time. That's my work is to try to figure out how the eighty -- the early 80's changed made in this country to take what they're doing worldwide and make some changes here in the United States.

MR. SIPOS: Well, I asked that because the standards that we are dealing with right now are the federal standards. They're standards that have been promulgated by the Federal Nuclear Regulatory Commission and the Federal United States Environmental Protection Agency.

We do have various federal representatives attending here tonight, in person and online as well. And so I understand they have gone to the international communities, but I guess, is there also an effort -- are they considering an effort of approaching the federal regulatory bodies, the federal elected representatives to address this question?

I know it's an issue that's been out there for a while. I know Senator, then Senator, Barack Obama raised this in 2008. But we have this

standard here right now with the 20,000 limit. So what are -- what is the -- what is the play or the request or the ask to the federal regulatory bodies that have set and have implemented this standard?

MR. LOCHBAUM: Well, G.R.I.P. is pursuing parallel paths. Worldwide, they're working with the United Nations and others to figure out what the science is. So you can show, demonstrate why young girls and females have more consequences. So you un -- need to understand why that's happening.

On the other path, we're trying to figure out how has change occurred in the past here in the United States, so we can see if any of those lessons are transferrable to conditions today. So once we have the science nailed down, we then figure out what the pathway is to make which federal bodies and what information to make those changes.

So those are the two paths that G.R.I.P. is pursuing to get to that outcome.

MR. WEBSTER: Maybe I just point out that having different standards for men and women is a norm. It’s not unusual. In fact, in the Hudson, the fish advisory does set different standards for, you know, old men can -- can eat more fish than young

women because of the reproductive effect. So it's -- it's not uncommon to see that.

CHAIR CONGDON: Mayor Knickerbocker, I think you had a comment.

MS. KNICKERBOCKER: Yes. I do. Dave, I want to thank you for giving us the four options. I wasn't aware of all the options. The discharge in the river, as you spoke about, has been happening for sixty, approximately, sixty years since the plants have been there.

One thing I'm -- I'm not for is the evaporation into the air. Because you're saying also if it evaporates in the air, it also comes down, contaminates the ground. The other option to Idaho, that's very unfair. That's very unfair to another community. We would not want to take that here from another plant.

The one thing I'm going to tell you as mayor of the host community that has been dealing with this, I have been involved since the announcement of the closure of 2017. Supervisor Puglisi started the Community Unity, which was informational, which was great. It really, you know, because who's done decommissioning before? None of

us, you know, so it was a great educational segue for us.

Then it went to the Citizens Advisory panel, Linda and I were also on that. So all advisory, all informational. We've all learned quite a bit. Now, thank you, Tom, and the state with the D.O.B. It was -- it was better for the state to take over that because they had the monies to bring in experts and if experts had to be paid, you know, so and it was, you know, informational and an advisory panel also.

The one thing I will tell you. Okay, hearing about those tanks, hearing about the potential of it leaking, that's -- that's a no-go for the Village of Buchanan. I'm telling you right now, it's not happening. You'll hear me screaming from -- from the rafters.

It is not happening. We would like to use -- so everybody knows, eventually that property will be decommissioned. Ten years, 12 years, 15 years, I don't know. We'll see when it gets decommissioned, but in the end, that property will be reused if possible.

So if you're telling me that these

tanks leak, now the tritium is all over the ground, so what's the point? So we have more contamination? So actually I don't think the storage of that on the property is happening. I mean, it was an option. Thank you, Dave.

One of the things I had said from the beginning, it's all about the safe commissioning and the safe restoration of the property. That's the mantra, that's the goal. I live in that community, I lived in that community my whole life. My mother was born there, she lived there for 93 years. I'm not going to tell you how old I am, but I've been there too, you know.

What I'd like to see, because we're talking about health effects, there are -- there is data, there is medical data that goes back maybe in a ten year period. How many -- how many -- how much of the population there was from 70's, 80's, 90's, you know, each ten year, and what is the percentage of the certain illnesses.

I'm sure that's -- that's available. I would be -- I would be very interested in that. But yeah, yeah, because we're talking about illness and -- and different things and I -- I -- in the

Village of Buchanan, our neighbors in Verplanck, our neighbors in Montrose. I'm not really compared to the, you know, the -- the amount of population, I'm not seeing a high incidence of cancer. So and I think that's one of the things with -- with radiation that -- that triggers cancer.

So I think, you know, just for the general knowledge, we hear all these things being thrown out. I think that would be interesting for us to kind of have an understanding of that.

CHAIR CONGDON: Just -- thank you, Mayor.

LOCHBAUM: Quick -- a quick.

CHAIR CONGDON: Yeah. Go ahead.

MR. LOCHBAUM: Two -- two points. One, in addition to water leaking from the tanks, all the tanks are vented, so some of it will evaporate. So tritium is going to get on the ground, whether it leaks out or evaporates out. As far as the cancer studies, the Nuclear Regulatory Commission launched a study into cancer effects, looking at are there cancer effects around nuco -- nuclear power plants. They discontinued that study because it cost too much, eight million dollars and would've been spread

out over an eight year period, a million dollars a year, which is less than it costs for their annual conference with the industry.

MS. KNICKERBOCKER: There you go.

MR. LOCHBAUM: But they canceled it because they – was too expensive to know the answers.

CHAIR CONGDON: Okay.

MS. KNICKERBOCKER: That would have been some good information.

CHAIR CONGDON: Yeah. But we've -- we've got to sort of get back on the agenda but go ahead. Last -- last question, and then, yeah.

MR. WEBSTER: Okay. Which is normally in my experience, you know, when you have contaminated, you know, oils and stuff, you -- you have a secondary contaminant. So if you have a tank failure, then you still -- you still don't leak the stuff into the environment. So I'm assuming that would be in place here, right?

MR. LOCHBAUM: Not required.

MR. WEBSTER: Well, it could be required.

MR. LOCHBAUM: I've got a better chance of winning the lottery.

MR. WEBSTER: Should it -- should it be required, Mr. Lochbaum?

MR. LOCHBAUM: I've got a better chance of winning the lottery. And I don't even buy lottery tickets.

MR. WEBSTER: Should it be required?

MR. LOCHBAUM: No. Because it shouldn't be done.

CHAIR CONGDON: Look, I'd -- I'd like to try to wrap up this portion of the agenda because there's still another slide left or two on the regulatory framework on the spent fuel. And -- and John Sipos, you may want to -- you may want to start, and then, and hand it off to Kelly.

I think that there was a -- a brief mention in Dave's slides about the Indian Point Closure agreement and -- and a mention of the expectation there. And then, we can hand it off to Kelly as a segue.

MR. SIPOS: Sure. Thank you. You know, I have known Dave probably for sixteen or seventeen years, was one of the first experts I brought on in the -- during the power plant litigation. So we go back a long way, and we have a

lot of respect for each other.

I think I will say, you know, a couple of comments regarding exactly what was anticipated in the 2017 agreement and the 2021 joint proposal. I think, you know, speaking as the lawyer for -- for D.P.S., I might have a different view as to some of the conclusions that Dave reached, and I think I'll just leave it at that. Just so the record is clear on that and now turn it over to -- to Kelly.

MS. TURTURRO: Thanks, John. So I'm going to talk a little bit about New York's regulatory framework. In terms of wastewater discharges, to waters of the state. But I want to take a step back -- back first and start with the Clean Water Act.

The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States. This law is implemented by the Environmental Protection Agency, the E.P.A.

And through this law, the E.P.A. is able to delegate authority to states to run programs. So that's what E.P.A. has done in New York. E.P.A. has delegated the -- the responsibilities of the

Clean Water Act, so issuance and enforcements of -- of permits for discharges to the waters of the state to New York State.

It is a program that New York developed. We call it the SPDES Pro -- Program. And it has been approved by E.P.A. So specifically for Indian Point, New York State regulates wastewater discharges from Indian Point through a SPDES permit. The SPDES permit governs non-radiological discharges from the facility.

And as I've spoken about in the past, the current status of the Holtec SPDES permit for the Indian Point facility is that it is going -- undergoing renewal before the New York State Department of Environmental Conservation.

So their prior permit, because they applied to us on time for a renewal, still exists while we go through the process of renewing the permit. New York State D.E.C. has determined that we will be undertaking a full technical review of their SPDES permit. What this really means is we've asked Holtec to submit comprehensive data to identify and characterize the non-radiological waste stream from the facility.

We will be reviewing that information and determining -- determining what the appropriate effluent parameters and limits will be. Once the application has been deemed complete, once the -- the SPDES permit application has been deemed complete. We will draft a permit and put that out to public notice and accept public comment on that permit.

So as -- as we continue these meetings, I will continue to keep everybody updated on the status of -- of that permit procedure. And then, just a follow up on -- on what John has mentioned, radiological discharges from the facility are under the auspices of the federal government. Thank you, Tom.

CHAIR CONGDON: Thank you very much, Kelly. And I want to just thank all of the speakers, Michel Lee, Dr. Falvo, Dave Lochbaum, Kelly. This was a really very informative discussion and I'm sure the beginning of further discussions on the topic, so thank you.

At this time, I'd like to turn to a public statement hearing portion of the meeting. We will -- there are a lot of people who have pre-registered to speak. There will be a three minute

timeline for each speaker. We are going to take the speakers in the order in which they registered, starting with those who are here in person.

If we don't get to you during this 30-minute session, we will pick up the list at the end of the meeting for the last half hour. And I want to remind everyone that there is still opportunity and there always is opportunity to submit questions in the Q&A on Zoom, and -- and statements that would be recorded there, as well as comments on our website.

And with that I'm going to turn it over to Tom Kaczmarek, who will run through the list of pre-registered speakers. Tom?

MR. KACZMAREK: Thanks, Tom. We'll begin with individuals who are participating in person today. Our first speaker will be Marilyn Elie. Marilyn, if you want to start working your way up to the mic. Followed by Nicholas Costalas, and Christopher Vargo. So just be prepared to come up after Ms. Elie has spoken. Hi, Marilyn.

MS. ELIE: Hi, Tom. And thank you to the board and to all of our speakers tonight. It certainly has been a very dense information packed meeting. And it's not just the facts, it's also

hearing people be very clear with their opinions and how they want to go forward.

I think that's really important. It won't take me three minutes to say the point I want to make. I've been following this issue for a long time, and I'm not interested in looking at any more facts, graphs, charts, or hard data. I've never seen that influence people or change anybody's mind.

It just doesn't seem to work that way, in my experience. What I am interested in is the morality of this issue, a medical issue, not a scientific issue per se, but a medical issue that could do harm in the future. And for myself, I am perfectly willing to put aside both the scientific issue and the medical issue because dumping more pollution of any sort into the Hudson River is just wrong.

It is not the thing to do. It is not the way we need to manage an historic river that belongs to all of us. It's happened for a long time, too long. It's time for it to stop, period. And they have tanks of tritium in Fukushima. David mentioned that, and I have been thinking about that. Are they leaking? Yeah. Have they been there for a

while? Yeah. Could we make them better? Maybe they'll send us some of theirs and we could improve them.

I do not know, but I -- it's impossible to believe that it is not reasonable to make a number of tanks that would hold a limited amount of water and could sit there until we have a better solution. The spent fuel rods are there and as Senator Harckham has said in the last forum they're going to be there in perpetuity. They're going to be there in perpetuity.

So what's the harm, except for the money Holtec has to pay, in having a few more tanks of tritiated water, which is much less harmful to anybody. And I guess the last point that I want to make is that we really do need to start looking at what we're doing with an idea of doing what's best for the environment and what's best for future people.

And putting that -- putting more poison of any kind in the river does not meet that kind of goal. So I'm really hoping that this body will move forward and figure out a way, maybe divide the property so the part of it can be developed and

part of it --

MR. KACZMAREK: Ms. Ellie? Ms. Ellie?

MS. ELIE: -- part of it's going to have to be there anyway because the spent fuel rods are there.

MR. KACZMAREK: I -- I -- Thank you. I -- I apologize. We're -- we're beyond time.

MS. ELIE: And I'm finished right now.

MR. KACZMAREK: Okay. Thank you.

MS. ELIE: Thank you very much.

MR. KACZMAREK: Thank you very much. Mr. Costalas, are you with us tonight? All right. Mr. Costalas, if you come back with us, we'll put you in. Christopher Vargo?

MR. VARGO: How are you doing? I'm Christopher Vargo. I live in Verplanck, New York, right down the street from Indian Point. I'm going to repeat myself, I apologize. My name is Chris Vargo. I live at 26 Hardie Street in Verplanck, New York. I've -- I have enjoyed the Hudson River all my life. It gives me great joy to see my daughter and my son sharing the same love of the Hudson River.

To say I am concerned about the plan of Holtec to dump radioactive water into the Hudson

River is an understatement. The Hudson River is used by millions of people for recreation, commerce each year. Additionally, hundreds of thousands of people depend on the Hudson River for the drinking water.

Dumping radioactive water into the Hudson will substantially affect the tourist and fishing industry, as well as all other activities people enjoy and depend on for their livelihoods. According to the Mid-Hudson Valley community profiles, the Mid-Hudson region contributed 2.2 billion dollars to New York State in 2020. Despite the COVID Pandemic. Allowing Holtec to dump radioactive water in the Hudson River could destroy that industry for years. The reason that Holtec is -- the reasoning that Holtec is following the government regulations doesn't make sense.

First, if Holtec fails to strictly follow the guidelines or deviates from all of them, then it's too late There's no way to retrieve radioactive water after it's released. Second, the government guidelines are only following safe drinking water standards, and no one knows for certain the bioaccumulation effects on all marine life in the food chain.

Remember, the Hudson River is a hatchery, a nursery, and a home for billions of marine life, birds, and mammals. As a fisherman and a boater, I have to follow laws to protect the Hudson River. Why shouldn't Holtec have to do the same? Also, the marine life in the Hudson River is vital for the fish stocks in the Atlantic Ocean.

So it doesn't matter if you're fishing or ... off -- off a steamboat dock in Verplanck or on a 50-foot Viking fishing boat in a ... fishing for tuna.

If marine life collapses in the Hudson River, both anglers are screwed. There are -- there are no good solutions for disposing of radioactive water. The Nuclear Regulatory Commission and Environmental Protection Agency has to do better as there are many more nuclear power plants that are either being decommissioned or will be -- or will be decommissioned in the near future.

Vermont Yankee was recently decommissioned and all the radioactive water was solidified and buried in an unpopulated area. And no -- and was not allowed to dump any radioactive water into the Connecticut River. It was forbidden.

Please don't put Holtec's profits over the people and the wildlife in the Hudson Valley. There's no reason to allow Holtec to dump radioactive water into the Hudson River. I got a couple questions for David.

MR. KACZMAREK: You have about twenty seconds.

MR. VARGO: Okay. All right. Real quick. I was told that it's really hard to detect radioactivity in water. And also you left out that they solidify the radioactive water before they bury it. That’s just a question. Thank you.

MR. KACZMAREK: Thank you. Next, we have Paul Blanch and then followed by Tina Volz-Bongar and Jerry Silverman.

MR. BLANCH: Thank you very much for your time. My name is Paul Blanch. I reside in West Hartford, Connecticut. I’ve work with John more than Dave. In fact, I think I introduced John and Dave to one another. So we go back a long time, I was one of John's experts.

I vehemently agree with what Dave said, what Michel said, and what Dr. Lee -- Dr. Falvo said is, we've got a problem. What was not mentioned

here is concentration. What is the concentration of the water and the total activity to be discharged. We haven't got that number.

We've done a brief calculation based on some actual facts of about twenty-eight curies of tritium in the spent fuel pools. That is not much when you compare it to the radiation contained in an exit sign that I can buy at Walmart, which is twenty-five curies, not a significant amount.

There is a fifth option that we have, and this will also allow Holtec to comply with the regulatory requirements to have a spent fuel pool. It's in their F.S.A.R. We have two spent fuel pools and I believe each one of them is capable of storing about a million gallons.

We could comply with the regulation as stated in 10 CFR 72.122 L, to have the ability to retrieve damaged canisters by maintaining those spent fuel pools and storing the water until it decays, tritium decays sufficiently, and we could remove those other isotopes such as cesium, strontium, maybe some cobalt.

I urge you to consider, in light of a regulatory commitment by Holtec, to retain the water

in the spent fuel pools that by now are not leaking. We don't have to fill them up. We don't -- we already have gauges on the level.

So I thank you for your time, and again, I want to compliment Tom because I've worked with other decommissioning boards, and this is the most well-organized board that I have dealt with and I've dealt with a lot of them. And I want to thank everyone on the board, and I want to thank Dave for coming up here. Dave and I have been friends for almost 30 years, so thank you very much everyone.

CHAIR CONGDON: Thank you very much.

MR. KACZMAREK: Thank you. Tina then, after that will be Jerry Silverman and Judy Dronzek.

MS. VOLZ-BONGAR: Hi. I -- I'd like to reserve my comment until Enbridge makes their presentation about the sinkhole in Yorktown. Is that still on the agenda?

MR. KACZMAREK: It is still on the agenda.

MS. VOLZ-BONGAR: And I'd like to comment after that.

MR. KACZMAREK: And can we bring Tina up at the second -- for the second portion, Tina, for

the second comment session, okay. Thank you, Jerry Silverman. The next up would be Ju -- Judy Dronzek, are you with us tonight? Okay. Again, Jerry and Judy, if -- if you present yourselves, we'll give you an opportunity.

Jerry Rivers is next. Okay. I promise these individuals are registered. And if I'm butchering your names, please, forgive me. James Creighton. Following Mr. Creighton, Greta Nettleton and Rachel Fenty.

MR. CREIGHTON: Thank you so much and I'm one of the council people here in the town of Cortlandt. The -- one of the host communities here for Indian Point. Look, releasing spent nuclear fuel pool water into the Hudson River has raised so many concerns among our community members.

The releases have been described as being dangerous and irresponsible actions that could have severe and long-lasting effects on the health of the river's ecosystem. Our Hudson Valley -- Hudson Valley communities that depend on it and our community, our people.

The radioactive materials contained in the water pose a significant threat to our precious

local waterfront and the wildlife, the fish, the people, all of whom rely on the Hudson River for boating, for fishing, for recreation, for drinking water, for recreation, for our local businesses. We therefore believe it's essential that alternative and safer methods for disposal are studied and pursued to protect the environmental and public health. Until we have a good answer, let's not do anything that's going to be something we'll -- we'll regret later.

Town of Cortlandt is trying very hard to showcase our riverfront to -- to ensure that our residents can enjoy the beautiful piece of the Hudson Valley that we're stewards of. In 1968, Pete Seeger, when he first stood on the deck of the -- the Clearwater Sloop in its inaugural tour, said that it wasn't going to be the polluters or the politicians who would clean the Hudson River.

He said, we want the people to come down to the river again, but the most important thing is to get together. All of us young and old, black and white, rich and poor, long hair and crew cut because we just won't make it unless we can talk to one another and agree on what we have to do.

Let's make sure that we can be forward

thinking together enough to avoid the short-term solutions, the ones that make us money. And let's protect our Hudson River for generations to come. We can't dump or discharge harmful, tainted water that will impact us for decades or more. Let's take the time to study properly and get this right. Let's do it right now. Thank you.

MR. KACZMAREK: Thank you. Next is Greta Nettleton, and then it will be followed by Rachel Fenty and John Sullivan.

MS. NETTLETON: Hi. Thank you so much for letting me speak. I'm very new to this whole topic. And I live across the river in Rockland County and I'm a boater and I use the Hudson River. As a rower, I walk my boat into the water, up to the knees, four or five times a week.

And so I'm very aware, since I'm downstream, about what might be coming and so I'm really, really thrilled that people are discussing this. And I can tell you, it's not just your town. It's all of us. Thank you very much.

CHAIR CONGDON: Thank you.

MR. KACZMAREK: Thank you. Rachel Fenty? Is John Sullivan with us today. And that'll

be followed by Courtney Williams and Lolly Yacker.

MR. SULLIVAN: Hi. Thank you for the work you guys are doing. First question is for Dave. How many years would it take storing the fuel, the tritium water. You often quote five half lives.

MR. LOCHBAUM: Ten.

MR. SULLIVAN: Ten. So it's going to be a 120 years it would need to be stored, if you want to get to zero.

MR. LOCHBAUM: If you want -- okay.

MR. SULLIVAN: For Kelly and for John, and I don't know whether you guys are in the position to answer this or want to answer this, my understanding is that the E.P.A. has delegated D.E.C. to issue S.P.D.E.S. permits. And one of the -- it is for radiological releases. All right.

And one is -- is the health and safety of humans involved, but the other is that it is reasonable -- the least most reasonable level -- least reasonable level. In other words -- I actually had it written down so.

The idea being that not only do we have to worry about the specific effect on people, but that we are going to do it in the most cautious

way possible. And so it's the least reasonable level, okay. So there are two things for that SPDES permit.

The question is this, why is the N.R.C. and I also read the National P -- National Public -- National Nuclear Waste Act. Which reserved it only for defense, didn't reserve it for commercial reactors. All right.

And John, the -- the issue is did we give away this in the agreement, okay. So why is it that we don't have -- why is Indian Point different? Why is it not under this? Why is the N.R.C. saying this? Do they in fact have a basis in law? Are we willing to challenge that basis? And why is Massachusetts different? Why do they think that they can stop them? And we are saying we can't so -- and --.

MR. SIPOS: So I'll take a crack at that, at least to a couple of the questions. To the question, did the agreement give anything away? No, it did not.

MR. SULLIVAN: Okay.

MR. SIPOS: And prompt decommissioning is in public interest. Secondly, under -- for this -

- for this facility, the release of radionuclides is under the auspices of the Federal Nuclear Regulatory Commission and the United States Environmental Protection Agency.

I think that the citations were put up on the screen, and that's the way it is. It is set up -- that's -- that's the way it is set up here. In Massachusetts, they have -- it's a -- it's a different permit framework. And my understanding is that in that permit it did not specifically reference spent fuel pool water. So different framework, different language, that's why it's different.

MR. SULLIVAN: So it's -- we would have to see what the actual legal language is to see the difference?

MR. SIPOS: It's a different framework in that the permit that is at issue and is being discussed in Massachusetts is under the auspices of -- of the Environmental Protection Agency. They are the ones who are communicating with Holtec about what the permit in Massachusetts does and does not allow.

MR. SULLIVAN: That's the federal E.P.A.?

MR. SIPOS: Yes.

MR. SIPOS: Okay. But we're delegated by the federal E.P.A. to set standards, the D.E.C. is, here in New York.

MR. SIPOS: We have an authorized program. I want to use my words carefully, but for this facility, for -- for -- for this facility, it is the N.R.C. and the E.P.A. that set the standards. And that's where the 20,000 picocuries per liter comes from.

That is the Federal Environmental Protection Agency maximum contaminant level also for drinking water. That is a federal standard, and that is where I would respectfully suggest concerns be expressed.

MR. SULLIVAN: Okay.

CHAIR CONGDON: And thank you John. And -- and just for the sake, order's sake, in the public statement hearing portion, we -- we -- we do ask that it just be a public statement and not a Q&A. I wanted to allow that only because it felt like there was some confusion about the earlier presentation and I thought it was worth allowing the clarification. So I appreciate your -- your comments, John, and your questions. Thank you.

MR. SULLIVAN: Thank you.

CHAIR CONGDON: Tom.

MR. KACZMAREK: Thank you. After Ms. Williams is Lolly Yacker. And then we'll move to our Zoom participants.

MS. WILLIAMS: Sure. Thank you all. Courtney Williams from Peekskill. It just -- or another reminder, legal does not mean safe. And I say that as a cancer researcher, we know full well that the legal limits are not the same thing as the safe limits.

And what is at stake here on one hand is our health and safety, the health of our river versus Holtec's shareholders. I don't think that that's really much of a contest. I would also like to say that the slides on the options for what to do with the water. I couldn't even take screen shots fast enough to get through those.

You know, if this -- part of this is going to be public awareness and including the public, we need more meetings. We need another meeting, and we need presentations that are actually accessible to a lay audience. And really, I am so happy to see so many folks here tonight, but this is

not a representative cross section of the people that live in this community.

We're not doing a good enough job to make sure folks are aware. So I would suggest meeting more frequently and having more meetings that the public can attend. And six o'clock is hard for a lot of people. I have to rush right here from work.

I would also like to say I'm really glad Dr. Becker spoke up on the health impacts, and I'm glad Dr. Falvo was here. But she was here one time. We need a permanent person on this D.O.B. that is versed in the science of radioactivity in terms of the medical and health impacts.

We need a -- like not an engineer, we need a doctor. We need a medical researcher that knows these things and can participate in every meeting to be that voice and ask those questions consistently, not come in once, be interrupted 40 times, nobody can hear them in the room, et cetera, et cetera. We deserve to have someone to speak up on behalf of our health at every single meeting.

When it comes to the spent fuel pools, I have used tritium in my research routinely, doesn't worry me nearly as much as what all else is in that

water that we don't know about. Who tested it, what did they test for, how much can we trust that data? You know, think back, the Hudson's a Superfund site, G.E. had to flip the lever and dump all those P.C.B.s.

We conceivably are at that juncture where we are controlling whether or not to flip that switch, and we know full well that once it's done, it's not getting cleaned up. Governor Cuomo let G.E. off. You know, we can't eat fish from the river because of the P.C.B.s. G.E. didn't restore that. We are at a precipice here. We can do the right thing, and frankly, tritiated water has been detected in Rockland County's water supply when they were studying reverse osmosis. So the cat's out of the bag, and we just make it worse.

MR. KACZMAREK: Ms. Williams, we're at time now.

MS. WILLIAMS: And how about putting a parent on the school monitoring group?

MR. KACZMAREK: Is Lolly Yacker in attendance?

MS. YACKER: I have learned a lot this evening and I'm so happy to see everybody here and I

appreciate the panel. So we've heard about the suscept -- susceptibilities on health, the safety of individuals. I mean, Hudson River is a historic site. It needs to be preserved. We need to have clean water. It has to be -- I mean we, you know, it affects from the food chain in the water to -- to our standards of living.

What I do feel personally, because I've had teaching in the past, is that it's like Holtec is getting away with cheating on a test. And I don't know how we could, you know, hold Holtec accountable or push Holtec past the standards.

I -- I know a lot of the meetings, I'm -- I -- I'm not sure how much litigation could be done to make sure that there's zero emissions in the water. I -- so -- so those are the questions that I have is how much can the decommissioning committee do?

And if the results are going back to Holtec that they don't, I -- I don't know, mess with the statistics or, you know, change whatever it is that they get the -- the reports. So that's what I have to say, and I appreciate everybody's effort into continuing to work with Holtec on -- on just trying

to get rid of this, the radiation. Thank you.

CHAIR CONGDON: Thank you very much.

MR. KACZMAREK: Thank you. Next, we'll move on to our Zoom participants who registered to speak. We'll only have time for -- for one or two at this juncture. But as Tom Congdon noted earlier, there will be additional time allotted toward the end of the meeting. First, we have Marie Inserra, our staff are going to unmute you. You may unmute yourself and begin when you're ready.

MS. INSERRA: I am going to cede my time. I haven't been feeling well, and I really am not prepared. Thank you.

MR. KACZMAREK: Okay. Thank you. next we have Jacquelyn Drechsler and that'll be followed by Suzannah Glidden. So Jacquelyn?

MS. DRECHSLER: Hi. Hi. There. Can you all hear me?

MR. KACZMAREK: Yes. We can.

MS. DRECHSLER: Okay. It's great to be here at this meeting tonight. I'm from Rockland County and I'm speaking also on behalf of my sister Jocelyn Decrescenzo. First of all, water. Dilution is not the solution. It's crunch time for Holtec to

pony up and use money from the two billion dollar decommissioning fund for safe decommissioning. Keyword, safe.

Once again, according to the N.R.C., there is no safe limit of tritium to ingest. Long-term onsite storage of radioactive wastewater is a more expensive option, which will lead in to Holtec's intake of profits, but it is safer than dumping tritium laden water into the Hudson River.

Tritium settles in sediment and gets into the food chain. According to Don Shapley of River Keeper, the Hudson River is an engine for life, not only of the river, but for the ocean ecosystem. The small fish from the Hudson are part of the food chain for the whales, when seasonal waters on whale watching tours.

Continuing the cleanup of the legacy toxins of P.C.B.s and other toxins and dumping one million gallons of tritium laden waters into the Hudson is nuts. Children and the immune compromised people are especially at risk, and so many people, over 106,000 who rely on the Hudson River water for their needs will be at risk. The International Atomic Energy Agency believes that radioactive waste

needs to be in leakproof containers and not in our water waste.

Regarding transportation, removing this waste and transporting it through local communities to far away places such as New Mexico, Idaho, Texas, to disadvantaged and environmental justice communities already overburdened by toxic industrial and nuclear waste is an outrage.

People will rise up against moving this hazardous waste by truck barge, or rail. I recently heard Paul Blanch say that transportation and having ... railroads to handle 200,000 pound canisters cannot be done from nuclear power plants.

Regarding monitoring, the fact that children and teachers have been attending school without monitoring for air pollution, particulate matters, and radioactive waste matter is unconscionable. What have the children been breathing, they suck up everything like sponges.

And as we already know and have heard from many doctors, including Dr. Helen Caldicott and the doctor who was on tonight, Dr. Falvo, children are -- and -- and Michel Lee. Children are especially sensitive and much more affected,

especially to the cellular level. This is not rocket science, it's medical science.

Hey. Regarding problems. There's not enough time to go into the exemptions. Exemptions for reporting of daily events, for not having to disclose what's in the water, for not having to do emergency planning, for non-examining ... on task or for violations that this criminal company, Holtec, persistently is fined for violations for workers' health, security violations at Oyster Creek.

Instead of the N.R.C. working on redefining what is high or low level waste, the N.R.C. should redefine and overhaul itself into the 21st century on the extremely serious and urgent matter of public health and current medical science. The residents --.

MR. KACZMAREK: Ms. Dreschsler --

MS. DRECHSLER: Yes.

MR. KACZMAREK: -- you're at time.

MS. DRECHSLER: Okay. Thank you very much. I guess I can send in my comments to somewhere.

CHAIR CONGDON: Yes. Absolutely on our website is the feature to submit comments.

MS. DRECHSLER: Okay. Thank you very much. And I just --

CHAIR CONGDON: Thank you.

MS. DRECHSLER: -- want to just say one thank you, especially, to Tom Congdon and Tom Kaczmarek for all the help with me and for rearranging the content of this meeting to accommodate so many more newcomers. Thank you very much.

CHAIR CONGDON: Thank you. Appreciate the kind words.

MR. KACZMAREK: Thank you. And I believe we have time for one more at this juncture, Suzannah Glidden. If you're on, we'll -- you're unmuted now, and you may begin when you're ready.

Suzanne, you may have to unmute on -- on your end. Suzanne, if -- if you're speaking, we're not able to hear you. All right, you -- you may be double muted, in which case your -- your device may be muted as well but I think we've all had experience with that before. But if -- if you're not on at the moment, we will afford an opportunity when we pick this up again in a little while later tonight. Thank you.

CHAIR CONGDON: Thank you. And -- and -- and I know there are other folks on the Zoom -- I'm sorry, is Suzannah ready?

MS. GLIDDEN: Yes. I mean I --.

CHAIR CONGDON: And I -- I think you've been muted, go ahead.

MS. GLIDDEN: All right, thank you. So as we've said several times tonight, this is a public health and safety issue. This whole nuclear operation and decommissioning. Dave Lochbaum is a nuclear expert. We need a medical doctor familiar with radionuclides health impacts and an emergency preparedness expert appointed to the D.O.B. and attending every meeting. And we'd like every member, please, of the D.O.B. to also watch our public health and safety forums that members of the public are hosting and please create a section on the docket for these critical videos.

As others have said tonight, Holtec must not discharge fuel pool water into the Hudson River, we've worked hard to clean up and protect and that supplies seven upstream municipalities their drinking water. And Holtec cannot be allowed to refuse to reveal the makeup of pool wastewater. So

we call for a sample of wastewater after the rods are out to be tested by an independent lab approved by the citizenry and not funded by industry, to revealed both elements and the amounts of them.

Only storing in tanks or kept in the pools is acceptable. The filtering system Holtec alleges it uses before storage must also be identified to understand how much is actually removed and who oversees it. Tritium, however, cannot be filtered out. It remains a lethal poison if ingested. It's taken in by fish, eaten by people, or drunk by people upstream. Cumulative impacts from years of releasing pool water must now stop. No more poisoning us and the environment.

Either store it on-site to let the tritium decay for five, or as Dave just said, ten half-lives or best keep it in the pools to decay and also provide by keeping the pools open. The only method N.R.C. allows a leaking canister to be reloaded in the pool water. I think Paul Blanch just said that.

Only recently an R.F.P., shockingly only recently, was sent out for bidding to install air monitors for radioactivity, most essentially at

nearby schools. While deconstruction took place without tenting, without monitors, children were allowed to return to school last fall.

Does refusing to air monitor thus far indicate Holtec and N.R.C.s intention to let radioactivity be absorbed by the trees, the soil, the water, and by people including our schoolchildren. Holtec has applied for an exemption from emergency preparedness claiming nothing will ever happen. But Holtec's loading system unavoidably scrapes carbon steel onto their stainless steel thin wall canisters. Carbon --.

MR. KACZMAREK: Suzannah.

MS. GLIDDEN: Yes.

MR. KACZMAREK: Unfortunately, you're at time.

MS. GLIDDEN: Well, those carbon particles create pit corrosion and cracking. So please keep the pools open for emergency reloading on site. Thank you.

CHAIR CONGDON: Thank you, Susannah. And thank you, Tom, for conducting this portion. Before we turn to the -- the -- the next topic, I just got a few points of clarification based on some

of the things we just heard on -- on the public statement portion of the meeting.

There was -- there was some insinuation, I think, that there will not be a characterization of the water in the pool. I don't believe that's the case. There will be a waste characterization of the contaminants in the pool.

And what I -- what I'd like to follow up with our resident inspector and our team on and -- and perhaps with the N.R.C. because I also heard, you know, who's -- who is testing but who is verifying. And so it's an oversight function, I think as a follow-up, we'll take back how we can best verify the characterization that will absolutely be required working with the N.R.C. and our own resident inspector and nuclear experts at the D.P.S.

There was another comment that was made pertaining to the beginning of decommissioning without monitoring. We started the meeting importantly with Dave going back over some of the slides that the school monitoring working group had developed early on in the D.O.B. proceeding where we noted the existing network of radiological monitors that are in the community today that have been in the

community for quite some time that are real-time 24/7 monitors that are beyond the license requirements will remain intact, are operational and -- and we continue to have data from those in real-time.

So I wanted to clarify and be extra clear with the community that there has been, and there will continue to be radiological monitors 24/7 in a ring around the plant with several located between the plant and the school that is -- that is close by.

So I just didn't want that to be left with -- without clarifying. So with that, I want to turn back to some D.O.B. presentations. And I know that many of you in the community read some news in December related to a sinkhole in the Enbridge pipeline right-of-way, eight miles from the plant in Yorktown.

And I thought it would be of strong interest in the community to have Enbridge join us via Zoom and provide a summary of what occurred and what they are doing to investigate the matter further. So with that, I'm going to turn it over to John Sheridan from Enbridge. John. John, you'll have to unmute.

MR. SHERIDAN: Thank you, Mr. Chairman, John Sheridan, government relations for Enbridge in Algonquin. Just to provide an update on the issue of the sinkhole. So on December 24th, we were made aware of a sinkhole near the Algonquin pipeline system in Yorktown, New York.

Following our prompt response, we determined that our pipeline system remained in safe operating condition. And we work closely with local officials and first responders to restrict access to the immediate area and support ongoing public safety.

We also monitor the area around the clock to evaluate the condition of the sinkhole, the area in our pipeline facilities. Work crews are able to make a safe excavation and expose -- inspect the exposed 42-inch pipeline. A small holiday in the pipeline coating was found.

So as part of our maintenance program, we brushed the coating down to clean steel and recoated that section of pipe. The issue was resolved. There was no damage to the pipeline. I also believe D.P.S. acting as an agent of P.H.M.S.A. was on site when the work was completed.

In addition, we implemented a plan to

2/2/2023 - Indian Point - 21-01188 safely fill a sinkhole with appropriate materials -- excuse me, I was cut off there a second. So added topsoil to stabilize the site for the winter. Around-the-clock security and fencing remain around the area, the park remains closed, while we complete a thorough review to further assess the geophysical characteristics at this location.

Safety of the public and the environment is -- is our top priority. And a highly trained team will continue to work with local officials. I'd also like to add, Mr. Chairman, that when the final review and assessment is complete, we'd be willing to come back and provide an update at the next quarterly meeting. That's really all I have at this time, Mr. Chairman, to share this evening and I'll turn it back to you. Thank you.

CHAIR CONGDON: Okay, thank you very much, Senator Harckham.

MR. HARCKHAM: Hey, John. This is Pete Harckham, New York State Senate. I guess it was about ten days, two weeks after the sinkhole incident, one of your local attorneys who represent you in matters called me, gave me essentially what -- what you just said. And said, in the very near

future there would be a briefing for elected officials, that briefing has never occurred.

So you know, you know this community is sensitive to the existence of the pipeline, people are clamoring for information. And there's really no communication from Enbridge to the public at large, or the elected officials who could provide that information.

And you know, this is just the kind of thing that doesn't breed confidence in the community about Enbridge being a good neighbor.

CHAIR CONGDON: Thank you, Senator. John, do you want to respond?

MR. SHERIDAN: Yes, thank you, Chairman, and we're -- we're trying, we -- we -- we want to get a full assessment done so that we can provide up to date and accurate information. So I apologize for the -- for the delay. But we will be circling back with you and other officials in the not so distant future to provide you an update, and to make sure that those communications -- those lines of communication remain open.

So I apologize if -- if we haven't gotten back to you as quickly as -- as you would have

liked. But we certainly will close the loop on that, sir.

CHAIR CONGDON: John, could you please just clarify exactly what a holiday is? So you know, for the people not versed in -- in gas pipeline safety understand what -- what that was when you mentioned a holiday in the coating?

MR. SHERIDAN: Sure. A holiday in industry terms refers to damage to the coating, similar to a scratch you get on your hand. And in this case, it was -- it was an abrasion, it was a scratch on the pipeline. And you know, part of our -- our guidelines, our operating guidelines, whenever we expose a pipe, we're required to do a pipe and coating report. And that's when we discovered a holiday.

And so again, we went out there and we -- we brought the coating down to plain steel, and then we coated the section of pipe it -- it's -- it's not unusual that we have to do this along the pipeline system from time to time.

CHAIR CONGDON: Thank you, John. If we could turn to Suresh Thomas from the Department of Public Service for an update also on -- on the

pipeline issues. So Suresh, are you with us?

MR. THOMAS: Yes, I am here.

CHAIR CONGDON: Hi. Thank you.

MR. SURESH: Subsequent to the December 22nd sinkhole event notification, our staff engineers were on site immediately after we were alerted. Staff confirmed the site was secured. We observed the testing of the pipeline after it was safe to do the work over there.

We did not find any condition warranting altered operation of the pipeline. Staff continues discussions with the operator as investigation continues. That all I have on this topic, the incident.

CHAIR CONGDON: Thank you. If you could, on the next slide. Oh. One more. Go ahead, Suresh. Suresh, are you still with us? Or is it Kevin Speicher from D.P.S. with us?

MR. THOMAS: Yes, I am here, sorry.

CHAIR CONGDON: Okay. It's all right. Go ahead.

MR. THOMAS: Regarding the Enbridge exercise, Enbridge currently working with Holtec, D.P.S. and state and local emergency responders to

2/2/2023 - Indian Point - 21-01188 schedule emergency preparedness, tabletop exercise. In Oak Ridge National Laboratory study, on December 16, 2022, P.H.M.S.A. released, an updated assessment conducted by Oak Ridge National Laboratory.

Presentation outlines key findings both are available at dps.ny.gov/indianpoint. Some sites are accepting questions from public, and you can submit at P.H.M.S.A. Public Affairs at D.O.T.gov, that link. Thank you.

CHAIR CONGDON: Thanks, Suresh, very much. Richard, I think you had a comment.

MR. WEBSTER: Yeah. This is about Enbridge. Did -- did this sinkhole occur in an area where you predicted that sinkholes are a possibility?

CHAIR CONGDON: John, are you still with us? Did you get the question, John?

MR. SHERIDAN: I did not get the question.

CHAIR CONGDON: The question -- the question was did -- did the sinkhole occur in an area of the right of way where Enbridge was aware that sinkholes could be a possibility?

MR. SHERIDAN: I -- I don't have that information this evening. I can't respond to that.

I would have to circle back with you.

MR. WEBSTER: Another question. Could a similar sinkhole occur anywhere else in the right of way?

MR. SHERIDAN: Yeah. I -- I --.

CHAIR CONGDON: The other question is could another sinkhole occur elsewhere in the right of way?

MR. SHERIDAN: Currently, we're doing a full assessment of -- of what occurred and hard -- hard to speculate until we have all the facts in front of us before we can, you know, indicate --.

MR. WEBSTER: You have the facts, hopefully, you should have had the facts before you put the pipeline there.

CHAIR CONGDON: Assemblywoman Levenberg.

MS. LEVENBERG: It's kind of a similar -- along similar lines, I guess, one, and also one of the issues that there has been all along with Enbridge is, you know, not knowing from a distance where these -- where the pipelines are being monitored from Texas that, you know, what is actually happening on the ground.

And this is just another example, whether it's a leak or a sinkhole, there's no local oversight and, you know, it's not clear also even from the report that I think there's another question, that report is, I think it -- that when they released it, they said it was actually completed in August, but it wasn't made available to any of us until December, unless it was, and I just wasn't aware of it.

And you know, it's not clear what the delay was in getting that information, why that took so long, but again, it gets back to the point of this delay in information pertinent to public safety, which in this case, it is.

CHAIR CONGDON: Thank you. I would encourage you to submit that question about the timing to the email for questions because they are being responsive at P.H.M.S.A. to the questions that are being posed.

Okay. Anything else on pipeline? Okay. Okay. So moving through to the next item on the agenda, Rich Burroni is here. He's going to go through. Okay, Rich.

MR. BURRONI: Hi. Good evening. I'm

Rich Burroni at Indian Point. In the next slide, just look at the agenda. Really, what I want to do is let's talk about our completed activities since the last D.O.B. which was December 7 and where we project we will be by the next D.O.B. which is April 27th of this year.

MR. BURRONI: What I'll talk to is the dry fuel project which consists of the (unintelligible) unit two spent fuel vehicle status. The unit three spent fuel pool building and the new HI-LIFT crane that we are installing. And then, I'll go into vessel segmentation, and then go to the next slide.

I will talk about some building demolition activities --.

CHAIR CONGDON: Excuse me, Rich, if you could please bring the mic closer.

MR. BURRONI: Okay.

CHAIR CONGDON: Thank you, we can hear you but for the transcript it's important.

MR. BURRONI: Okay.

CHAIR CONGDON: Thank you.

MR. BURRONI: We'll go through some building demolition activities. I know you have the

crowds interested in the N.R.C. inspection and their activities. We did get a N.R.C. severity level four violation. I'll talk about it in detail. And then, I will talk about some of our industrial safety trend and our corrective actions.

So dry fuel project really concludes -- concludes with all fuel from both spent fuel pools transferred to the independent spent fuel storage installation known as the I.S.F.S.I.

All right. The protected area fence, nuisance fence and a vehicle barrier system are required to be installed. The dry fuel project is projected to be complete prior to the end of the fourth quarter of this year 2023.

Regarding the I.S.F.S.I. pad, as previously noted, an additional pad had to be constructed to accommodate all of the Holtec high storm 100 casks. A 127 casks are needed to secure all the fuel for both unit two and unit three spent fuel pools. The original pad will hold 75 casks and the new pad will hold 52.

And as reported in the previous D.O.B., fencing and monitoring equipment have already been installed such that both pads are now part of

our protected area on site.

Since the last oversight board meeting, or the vehicle barriers system installation, that would phase four, is being bid by independent contractors. We expect those bids to be submitted shortly. This system is for a standalone barrier system for the two pads.

And then we did start removal of the condensate storage tank and I'll show you pictures in the next slide. Projected activity is through April. We'll have the C.S.T. removed and we'll award the bid to install the vehicle barrier system and start construction activities.

Next slide. So this shows the new pad with some of our tasks already on there from unit two. The tank that you see there, approximately, I guess at the three o'clock position. That's the condensate storage tank that's in the process of being removed right now.

Next slide. So proceeding to the unit two spent fuel pool defuel status. Recap 896 fuel assemblies needed to be casked at unit two, that required 28 casks. Since the last oversight board meeting, the unit two spent fuel pool offload is

complete.

All 28 casks are currently located between the two I.S.F.S.I. pads. This was one of our first major milestones that we did. We completed that approximately three weeks early. So compliments to the deep -- the dry fuel team. They did a great job here.

Projected activities through April 27th include, there is some necessary equipment, we'll transfer from unit two F.S.B. to unit three F.S.B. and they'll be required for fuel removal. And then, basically we're planning for fuel rack removal over the next two to three months.

Right. That means we'll develop work orders to do that. We'll perform preventive maintenance on equipment needed to remove the racks. We'll have -- we need to fabricate a rack lifting device that's being done in our on our Camden facility. And then, we'll order rack containers for disposal of the racks and those will go to W.C.S. in Texas.

Next slide. Unit Three, we're working on the modifying the -- the building itself and installing the -- the new HI-LIFT crane. So we

completed modifications to the F.S.B. to the building -- I'm sorry, to support the HI-LIFT. We completed a factory acceptance testing of the crane itself in a facility in Pittsburgh.

We shipped and assembled the vertical cask transporter for the unit three HI-TRAC slash HI-STORM cask. These casks are a little bit different dimension. So they require a different vertical cask transporter, and we commenced building the HI-LIFT.

Projected activities through April 27 include a complete assembling the HI-LIFT crane have performed site acceptance testing will finalize procedure development in the operation of the HI-LIFT and our first few moves currently scheduled for the beginning of May. So 41 casks will be required for all of the fuel in Unit Three spent fuel pool.

Next slide. This basically shows the modifications we had to do to the building. We had to modify ductwork for heating and ventilation system. We had to modify a walkway to facilitate installation of the HI-LIFT itself or the suction piping to the cooling system had to be moved again, just based on the configuration of the high lift crane itself.

We put a new floor and rail system into transport casks out of the building and we created openings for HI-LIFT access. Next slide. So this is the construction of the new crane. All right. They're called outriggers and swing arms. So basically, we go west -- we go west, furthest west to east, right, and so we're proceeding with the installation of the HI-LIFT itself.

Next slide. And it shows just the further, where we are with the HI-LIFT crane itself. That's all I have for now for dry fuel project, so are there any questions on fuel?

MR. LOCHBAUM: Do you use the same -- roughly the same team for Unit Three as you did on unit two or --?

MR. BURRONI: No, they're independent teams for the HI-LIFT, versus the -- the team that removed the fuel from unit two. They'll now transfer those guys over to unit three.

MR. LOCHBAUM: So they'll have that experience and just carry it forward?

MR. BURRONI: Absolutely.

MR. LOCHBAUM: Thank you.

MR. BURRONI: Not only that, right,

some days guys will remain at unit two to remove the racks.

MR. WEBSTER: Rich, can I ask you a question that came up from the public comment which is people are suggesting that you can move the -- if there's a problem with the casks, you can move it back to the fuel pools. Will your system accommodate that?

MR. BURRONI: I -- could you -- could you repeat? I didn’t get it either.

MR. WEBSTER: People are saying --.

MR. BURRONI: Yeah.

MR. WEBSTER: Obviously, tonight, my accent seems to be stronger than usual, I don't know why.

MR. BURRONI: That's okay. I -- I grew up in a family full of accents, Mr. Webster, but I just can't take --.

MR. WEBSTER: Yes. So I should have brought my translator, you know, I think it will be better. So -- so some members of the public were suggesting that a good reason to leave fuel behind in a -- not fuel, leave water behind in the spent fuel pool is because if you had a problem with a canister

and a cask, then you can transport it back to the fuel pool to be re -- you know, re -- re -- re-cask or whatever -- re-canistered it or whatever, right?

MR. BURRONI: I understand.

MR. WEBSTER: Can your system accommodate that? Could you transport a cask back from the fuel -- from the -- from the – I.S.F.SI. the ... back to the -- back to the fuel pool? Can you do -- is it -- is it reversible?

MR. BURRONI: We can but that's not our business model. What we would do is bring another, it's called the HI-STAR. We would transfer the cask into the HI-STAR, and then, do any analysis we had to do.

CHAIR CONGDON: And maybe just explain what the HI-STAR is?

MR. BURRONI The HI-STAR would be another container that we would -- the M.P.C. within the cask is what actually holds the fuel.

MR. WEBSTER: Yeah.

MR. BURRONI: So if there's an issue with the M.P.C. or the HI-STORM, we would transfer it to a HI-STAR. And there, we would do the analysis and see any corrections that were needed to the

M.P.C. itself.

MR. WEBSTER: All right.

MR. BURRONI: It's not been any leakage with the -- any leakage at all with any of the Holtec M.P.C. themselves.

MR. WEBSTER: Right. Maybe we'll come back to that another time. I know it's a complicated topic but thanks for that.

MR. BURRONI: No. You're welcome. Any other questions on fuel?

MR. WEBSTER: Well, maybe I -- I have the big question, right, which is, you got unit two pool empty, so when do you want to lose the water?

MR. BURRONI: Right now, tentatively scheduled to discharge water from the spent fuel pool late August, early September.

MR. WEBSTER: And would you be prepared to wait on that until the state gives you the okay?

MR. BURRONI: We should be prepared when, I'm sorry?

MR. WEBSTER: Would you be prepared to delay that discharge until the State gives you the okay?

MR. BURRONI: Right now, we would just operate with our existing procedures and the requirements that we have either from the State or from the N.R.C.

MR. WEBSTER: Right. And I'm asking a question. I'm not asking what the existing --.

MR. BURRONI: In full transparency? No.

MR. WEBSTER: Okay.

MR. BURRONI: I'm not going to -- I'm not going to be here and tell you a different story, right. Our schedule is, again, right, we want to meet this 12-to-15 year requirement. And -- and -- and I understand the emotional part about discharge to the river, I get that, and in fact, I even have a recommendation that we can talk about later, right.

But right now our scheduled calls for defueling -- or dewatering watering the unit two spent fuel pool late August, early September.

MR. WEBSTER: Okay. So can you give us ... that you won't do it before then?

CHAIR CONGDON: He asked, from Mr. Webster, would you give a commitment that you won't

discharge before that timeframe, before August, September timeframe that you just said?

MR. BURRONI: I -- I won't commit to that, I mean, it all depends on how we proceed with the rack removal. There will be some cleanup that's required within the pool itself, right. The racks had the Boraflex, which we believe did leave some sediment on the bottom of the pool.

MR. WEBSTER: Uh-huh.

MR. BURRONI: So we'll have to clean all of that.

MR. WEBSTER: Uh-huh.

MR. BURRONI: Right. We'll vacuum that up. Again, transport that.

MR. WEBSTER: Okay.

MR. BURRONI: In accordance with the rules and regulations. So I -- I -- I don't want to commit to August, September. We may be real efficient and be able to -- to move that up.

MR. WEBSTER: All right. Let me -- let me try one last thing, Rich, I know we're going to get a yes at some point, but we just -- we just have to work at it, right. So can you give us a commitment that you'll give us a months' notice

before you discharge to the river?

MR. BURRONI: Sure.

MR. WEBSTER: And there we go, see.

MR. BURRONI: Okay.

MR. WEBSTER: And thank you.

MR. BURRONI: Thanks.

CHAIR CONGDON: Assemblymember Levenberg, please.

MS. LEVENBERG: Does D.P.S. have any control over that or not?

MR. BURRONI: Has -- I'll turn it over to my counsel.

MS. LEVENBERG: I think you said it before, but I just want to clarify.

MR. SIPOS: So the framework for releasing water from the pools is a United States Federal Environmental Protection Agency and Nuclear Regulatory Commission framework. It is their auspices that controls that.

MS. LEVENBERG: But do we have any control over it? I -- I mean, I heard what you said, but I -- I think that the question is still relevant. You know, can we -- can the state in fact, if we have, you know, any evidence that -- that we believe

this is not the best way to proceed whether or not the federal government has control, I mean, can we impact that -- that timing at this point, that's the question.

MR. SIPOS: Yeah. I think we'd have to explore. I think that would be the most appropriate thing for me to say right now. But I -- I really do want to come back to the issue of effluent -- liquid effluent discharge is a federal -- is under the auspices of two federal agencies.

And the place to advocate and to interact and communicate and suggest an initiative is with those two agencies and the federal elected representatives.

CHAIR CONGDON: County legislator Colin Smith?

MR. SMITH: Yes, thank you, mister -- Mr. Chairman. So I -- I do have a question with respect to everything that we've not only heard here tonight about, you know, what is -- is known with respect to the discharge into the -- into the Hudson River.

The very deep and grave concerns that the community has, that local industry has with

respect to that, do -- I mean, has -- has Holtec looked at that at all before this? I'm -- I'm not trying to be tongue-in-cheek here but I mean, have -- have you had any conversations surrounding that, you know, that issue, you know, in your decision regarding if and when you're going to discharge.

I understand that it's under the federal auspices, but I'm just asking as a -- as a business consideration and -- and as, you know, considering the -- the concerns in the community as well as in local industry, local businesses. Is -- is it something that, you know, Holtec has just not at all considered or has there been any consideration taken up until this point?

MR. BURRONI: Well, in this case, Holtec is me, right. So I -- I'll tell you this.

MR. SMITH: You bet.

MR. BURRONI: Our releases per A.L.A.R.A. program, which is as low as reasonably achievable. That’s what A.L.A.R.A. stands for, requires us to discharge radionuclides less than one percent of what the N.R.C. -- what the N.R.C. limits are. So that's -- that's number one.

Number two, I did talk to my

decommissioning director on the way here today. Almost what Courtney said, I -- I -- I think if we can have a discussion, not with a 1000 people, that's not going to work, right. But we have a radiological environment operating report that goes to the N.R.C. on a yearly basis, tells you every radionuclide that we discharged to the -- to the river, right, and its effects, right, so we can go over that report.

Monthly, we send a report to the D.E.C., right. That again, shows all of the discharge parameters. We'd be -- I'd be more than willing to sit down with a -- I -- I think a smaller group would work best, right. Just so everybody understands what the issue is, and then we could communicate it to everybody.

I -- I really think that -- that would -- well, it won't -- it won't appease everybody, I get that. But -- but I -- I think long term at least people understand where we are with this.

CHAIR CONGDON: I think I hear agreement between something Courtney Williams said and what you said which is we need more --.

MR. BURRONI: Yeah. It's amazing.

CHAIR CONGDON: We -- we -- we need

more meetings. So -- so we'll -- we'll take that from both of you as -- as a good recommendation for follow-up.

MR. SMITH: And might I just, I'm sorry.

CHAIR CONGDON: Yes, please.

MR. SMITH: And just, I mean, I'm not trying to accuse you, you know, of doing anything, you know, untoward or not being, you know, vested and involved in this process, but it just -- it sounds to me like, there is -- there is a disconnect here for whatever reason and I think that meeting in a smaller environment where people can sit down and have much, you know, better --

MR. BURRONI: Right.

MR. SMITH: -- much -- much more valuable and efficient use of time would be, you know, a great idea. And I -- I think it would potentially go, you know, a long way towards allaying, at least allaying some of the concerns --

MR. BURRONI: Yeah.

MR. SMITH: -- that the community has with regards to --.

MR. BURRONI: Let's be honest, right,

I'm not going to appease everybody. I know it, right. But at least we have some science, and we have some basic facts behind what we do.

MR. SMITH: Yeah. Of course.

MS. BORGIA: Also not intended to be disingenuous, but for what reason do you send that report to the D.E.C.?

MS. TURTURRO: I'm sorry.

CHAIR CONGDON: For what reason --.

MS. BORGIA: For what reason do you send that record to D.E.C.? What is the reason --?

MS. BURRONI: It's a monthly requirement.

MS. TURTURRO: I -- I can -- I can talk about that.

MS. BORGIA: Yes, so but it's a requirement but there's no --.

MS. TURTURRO: Yeah. As part -- as part of the SPDES permit, every permittee is required to submit what we call a discharge monitoring report. So it's a monthly report of all the discharges from the facility that are regulated under the SPDES permit.

So it only shows the effluent limits

that are regulated under the New York State's SPDES permit and the levels monthly that were discharged from the facility.

MS. BORGIA: And if there's anything that is notable in that -- in that it's higher than normal or something unusual, what does – what's their role then, the D.E.C.?

MS. TURTURRO: If one of the limits in the SPDES permit, if -- if a discharge shows that the discharge is over the limit in the SPDES permit, then we will advise the facility. And then we have an enforcement process that we can take we -- we typically start with a notice of violation, and then, determine appropriate next steps.

MS. BORGIA: Yeah. Being from the county, we're very familiar with that $17,000 a day fine. But that seems a little bit different than there's no rule at all for New York State, to me.

MS. TURTURRO: So I don't think we're saying there's no role at all for New York State. I think that the -- the distinction is between radiological discharges and non-radiological discharges. And what we're talking about when we're talking about a SPDES permit is non-radiological

discharges, what John was referencing was radiological discharges.

And based on what I've heard today, much of the community concern surrounds radiological discharges.

MS. BORGIA: Understanding that, but they are sending you a report, I thought I heard --

MR. BURRONI: Yeah.

MS. BORGIA: -- that the radiological discharge is part of the report that they send to the D.E.C.

MS. TURTURRO: No.

MS. BORGIA: Is that -- was that incorrect?

MR. BURRONI: I -- I know I send a monthly report.

MS. TURTURRO: So monthly report that comes to D.E.C. only addresses the effluent limits that are in this SPDES permit.

MR. BURRONI: And then, I --.

MS. BORGIA: It does not include radiological discharges.

CHAIR CONGDON: Kelly -- Kelly, hold -- hold on a second. So was – there were a couple of

people speaking at the same time. Was there a question -- another question from your side? Okay. John, you wanted to say something?

MR. SIPOS: Rich, do I have this -- am I understanding this correctly? There are reports that you send to the Nuclear Regulatory Commission and the Environmental Protection Agency, two federal agencies is -- do I have -- is that correct?

MR. BURRONI: Yeah. Annually.

MR. SIPOS: Right. And I assume you work hard to make sure that those reports are accurate?

MR. BURRONI: Absolutely.

MR. SIPOS: Because you want to be accurate and also because there's a federal requirement that they be accurate for enforcement purposes, right?

MR. BURRONI: Absolutely.

MR. SIPOS: And those reports are publicly available?

MR. BURRONI: Absolutely.

MR. SIPOS: Thank you.

MR. LOCHBAUM: Those reports are posted on the N.R.C.'s website on one web page. All

the ones when you point dating back to like 2005, something like that.

MR. BURRONI: Yes.

MR. LOCHBAUM: Both the annual report and the effluent report are there as well as the Groundwater Protection report?

MR. BURRONI: Right. So the questions before were, what do we know about unit one when they discharge to the river, right? Those reports are available all on the N.R.C. webpage.

MR. LOCHBAUM: Yeah.

CHAIR CONGDON: I just want to do a time check for the group. We wanted to try to have a stop at nine thirty. That's a half an hour extra from what we were originally scheduled that was meant to provide another public statement opportunity which I'm still committed to, and I hope everyone is -- is willing to stay a little beyond nine thirty. We have --.

MR. BURRONI: I can stop right now.

CHAIR CONGDON: No, the best part is yet to come -- the best part is yet to come. So we -- we had -- we had discussed briefly at the last meeting N.R.C. violations, is that next on your -- on

your agenda because I -- I thought that got short shrift at the last meeting and it was a lesson learned for me that I want to ensure full transparency on any kind of N.R.C. inspection activity.

Citations, any state inspection activity that results in any kind of state action and your response to it so the community can hear both what the violations were, what the corrective actions were and ideally what the State is doing to follow up on this corrective actions.

And so I do want to have that piece of the discussion and I would like to try to do at least another few public speakers at the end, if that's okay with my fellow D.O.B. members.

MR. BECKER: I just want to make a comment that’s in follow-up to what all the other elected officials said. And that to say that this community has concerns about the discharge of the water into the river and the D.O.B. will not have direct oversight of that because that’s federal.

And so I think I can transmit to at least Steve, sitting right there. I don't want to put you on the hot seat, but you are a representative

from Senator Gillibrand's office and I think the elected officials here would like to meet with you at some point to transmit this communities' concerns to the federal level.

CHAIR CONGDON: Thank you, Rich. Rich Burroni, back to you.

MR. BURRONI: So I'll proceed with the segmentation. Do you want me to jump to the violations?

CHAIR CONGDON: I think -- I'm sorry, Steve, did you want to say something?

MR. KOLLIAS: Well, I just want to add, we don't have a ... So I just wanted to make that clear ... that our representative don't have a seat at the ... So we're not part of this, you know, not to part of this committee and meeting.

We can participate by sitting here observing and, you know, on Zoom. We're not allowed to be part of the actual committee, we were being more than happy to be --.

CHAIR CONGDON: Thank you. So Rich, I think on the segmentation, Dave and John, Rich -- Richard, do -- do you think we should have this as -- as a written submission and -- and fellow D.O.B.

members and let's skip to the violation --

MR. WEBSTER: Yes.

CHAIR CONGDON: -- it's the most important part for them to finish up, so --.

MR. WEBSTER: I think we should segment, Richard ... presentation and go the violations.

CHAIR CONGDON: Yeah. Please go ahead to the violations.

MR. BURRONI: And so if we go to page 24. So we did receive a N.R.C. severity level four violation. It’s equivalent to a green finding from operating reactors. It's not subject to enforcement action as long as its placed into the corrective action program to prevent recurrence.

I and it’s a severity level four N.C.V. is the lowest level violation, very little safety significant documented in the inspection report. The N.R.C. inspection report documents N.C.V.s along with inspection activities and observation from the inspections.

A notice of violation is different from an N.C.V.. It's a written notice setting forth one or more violation of a legally binding

requirement and normally requires a written response from the licensee and indicates some written regulatory enforcement actions are required.

In the inspecting report dated November 17th, 2022, the N.R.C. identified an N.C.V. of very little safety significance subtitle 10 10C of part 20.1406 minimization of containment and the details of that violations are as follows.

The violations states that H.D.I. did not have an adequate procedure or engineering controls to make sure that airflow would not escape the equipment hatch during radiological work as stated in engineering change E.C.I.P. And there is the number.

The engineering change documents stated that no airflow will travel outward of the enlarged equipment hatch area, only inward. And the inspector questioned the site on monitoring and controls in place to execute the E.C.

Based on the N.R.C.'s question, we correctly enter the issue of concern into our corrective action program, the following corrective actions were generated in response to the incident report.

A smoke test was performed at five different elevations of the new equipment hatches on both containment buildings and covered the full height of both equipment hatches. The test results indicated no outward flow and indicated either no flow or inward flow at the number of the elevation check points.

This result was not consistent with language in the engineering change which stated only inward flow. And so we revised the E.C. to reflect field conditions. Our ventilation systems were changed following the test results to further promote inward flow.

Our procedures were revised to provide explicit direction to close or verified closed, the equipment hatch during any work activities that potentially generate airborne radionuclides. For example, a well ... construction activities and the internal transport of radioactive materials.

This direction was initially provided in the station standard, and now better resides in the procedure. The N.R.C. inspector noted in the inspection note in the inspection report that no aggressive work, that will be cutting or grinding,

was being performed at the time of the observation. And the inspectors noted that the air sample taken that date did not indicate any release of material.

It should be emphasized that the N.R.C. stated that there was no release of radioactive material from containment. Additionally, no activities were performed at the time of the inspection that a potent -- could have potentially generated airborne material or contaminants with the hatch open.

Only equipment that's been surveyed is clean or appropriately packaged can be transported at a containment hatch. Again, while no other work is being done in containment that could generate airborne radionuclides.

Inside containment a H.E.P.A. filter, local ventilation system is always employed to capture and control radionuclides and contaminants, when work that could generate airborne radionuclides is performed, again, with the hatch closed. So that would be a local HEPA filter at a welding activity.

Engineering controls at the equipment hatch have always included HEPA filters at the ventilation systems, continuous air monitors, air

sampler and surveys directly outside the equipment hatch. At no time have radionuclides or contaminants left the building.

The Reuter-Stokes monitors located at the site boundary have never shown any increase in airborne activity. The N.C.V. references a different site where reactive vessel segment act -- reactor vessel segmentation activities result in a radioactive particles in soils samples which is likely attributed to a lack of negative pressure in the containment building.

As directed by processes and procedures the I.P.E.C. equipment hatch is always closed during vessel segmentation work, and then monitoring in place confirms no release. That was before the N.R.C. even inspected us. A discussion with the N.R.C. Region One leadership was conducted on December 20th, discussing N.C.V. write up and the inspection report. And we acknowledge that D.C.P. - E.C.P., which is the engineering change, could have been more explicit on expectations for controlling the hatch. We also acknowledge that the written procedure to control the hatch is preferred to a standard.

Lastly, it should be enforced, again, at no time, that radionuclides or contaminates left the containment building as confirmed with our site monitors. We have incorporated a corrective actions and lessons learned into our work practices and are confident that this issue had been adequately and thoroughly addressed.

This was a good lesson learned for us. We further strengthened our defense, made our standards more clear through the use of procedures. That's all I have for that violation. Thank you.

CHAIR CONGDON: I think Dave Lochbaum has a question.

MR. LOCHBAUM: Yes, you mentioned -- you mention lessons learned and the opportunity, did those lesson include looking at why your team didn't find this problem before the N.R.C. inspectors found it?

MR. BURRONI: We -- we -- we could have done a better job there, Dave. Admittedly. I mean, that's why we did the smoke test. And like I said, up front, we should have done that. But at no time -- again, we were pretty confident that at no time that we ever released anything out of

containment.

MR. LOCHBAUM: Yeah. I wasn't -- I -- I just --.

MR. BURRONI: No, I get that.

MR. LOCHBAUM: Okay. Thank you, I understand.

MR. WEBSTER: Well, as a follow up. What did you do to verify that there would be negative pressure before telling everybody in this meeting that was negative pressure?

MR. BURRONI: We have pressure indicators within our containment building that will show us -- its differential pressure across roughing filters, right. So that D.P. will tell us if there is negative pressure going into the building, right.

So we always had those, right. The roughing filter some of them had to get changed ... because they did get clogged just based on dust in the environment, right. But we always had the roughing filter D.P.S. to verify that we had inward flowing into containment.

MR. WEBSTER: Right. But it -- but just because you have inward flow, doesn't mean to say that there's an -- if you had the hatch fully

open, that hole of the hatch has an inward flow, it's just a net inward flow, right? Some of it could be going out and some of it could be going in.

CHAIR CONGDON: Did you catch that?

MR. BURRONI: No -- no.

CHAIR CONGDON: With the hatch open, I think Richard is suggesting that the monitors you just referenced may be showing net negative pressure but it's not measuring the flow of air through the hatch back and forth.

MR. WEBSTER: Well, in other words, the air could be flowing in -- in part of the hatch and out in a different part of the hatch. So there's net in, but there is outward flow as well.

MR. BURRONI: I'd have to look at it.

CHAIR CONGDON: We'll have to follow up.

MR. WEBSTER: Well, I mean, let me just say that this has been a problem at Holtec's facilities, which is that the design -- the design documents over promise, and then the actual implementation underdelivers and --

MR. BURRONI: ...

MR. WEBSTER: -- most of the solution

to this seems to be the name change, the over promise in the design documents to then go back to what's actually happened. And I really think this is a very concerning thing for us to hear, and I'm glad that you admit that you could have done better on this and I'd like you to really think about how you must do better on this.

Please do not come to this board again and tell us something which is factually incorrect.

MR. BURRONI: First of all, you made -- you made a global statement that I -- I don't know where you're getting the information from.

MR. WEBSTER: Yeah, well, the design changes on that -- on the casks where design changes are made to the casks which then turn out to be design changes that were essentially -- that needed N.R.C. approval, which you haven't asked for, all the other ones though.

MR. BURRONI: You're talking about the issue at ... totally different than us.

MR. LOCKBAUM: Oyster Creek where work was contaminated because of the change Holtec made, a unauthorized change

MR. WEBSTER: Oh that was the -- the

valve the --.

MR.LOCHBAUM: Vacuuming.

MR. BURRONI: It -- it just seems you've taken a global swipe at every engineering change that Holtec does with one or two examples.

MR. WEBSTER: Well, I mean --.

MR. BURRONI: We can go -- we can go further and talking about all the engineering changes but I don't want to be combative here.

MR. WEBSTER: Okay. Rich, why don't you come next meeting? We'll list all the violations that Holtec's had that are associated with design changes and we'll go over it. And let's see whether there's a pattern.

MR. BURRONI: If -- if you want to do that, Mr. Webster, you're more than likely -- more than welcome.

CHAIR CONGDON: Any other questions? So you want to move on, Rich?

MR. BURRONI: Industrial Safety? Yeah. We're really not proud of this one to be honest with you. Right. So recent history in New York State Department of Public Service, Office of Resilience and Emergency Preparedness submitted a letter to us

on November 14th with concerns of our industrial safety trend in Indian Point.

The letter cites concerns with near misses, fitness for duty testing and a number of OSHA recordable entries. And in a letter addressed to Mr. Wisely, dated December 7th. We did respond that we appreciate and share the same concern regarding the industrial safety performance Indian Point. Our response acknowledges two near misses and three OSHA recordables.

Unfortunately, now the total is six. So to me, right, you really have to look at the cause of the events, right. So let's be clear that we know and acknowledge that no one comes to work wanting to get hurt, right. But we do need to address and understand the cause before we could put meaningful solutions in place.

So with that said, we looked at the cause of some of these issues. One was where wrong tooling was used far oversight of the task at hand. Body positioning between eye-hand coordination. Preexisting condition of the worker and the material condition of the facility. You know and that’s one I take personally -- I am personally accountable and

responsible for. And one not meeting site standards. Those are basically the causes of the safety issues we've had.

So corrective actions to date. We continue with safety discussions every day at pre-job briefs and station meetings. We'll continue with Union led Safety Committee Meetings on a monthly basis. We -- we solicit and we want to hear from Union personnel what the issues are, and we will resolve them as needed.

We started issuing a station wide red and yellow member -- memo addressing the event distributing them station wide. So when guys walk into work if somebody got hurt, right, depending on the severity it will be the red memo or yellow memo. This way, it's a site correspondence throughout.

We established the coach of the week roster, right where supervisors and managers will go out and observe a job. And then what they'll do is we'll report back, we call it a Leadership and Alignment Meeting and we'll discuss what the supervisor manager saw and any on the spot corrections we had to make. We developed an expectation of document to be signed by all members

of the leadership team as an acknowledgment to uphold station standards and expectations.

We'll perform periodic craft labor safety walk downs where we'll take a craft person with a sit -- with a safety managers or manager or any manager really, and just watch a job to make sure all the safety precautions are being taken. We'll perform periodic housekeeping walk down. So one -- one thing we did find was our housekeeping needed -- needed to be addressed. And so we've done that the last two weeks.

We've committed ourselves to do that continuously. All right, we'll report back to that on a -- at the L.N.A. meeting also. But I was disappointed in some of the housekeeping things we saw. We need to maintain our standards, right? We need to maintain our standards in safety. We need to maintain our standards and in housekeeping.

I -- I've told all the guys that, everybody acknowledges that. Because we’re a decommissioning plant doesn't mean we let our standards go, right, and we're -- we're reinforcing standards and making sure that they're kept. And I'm confident now with the corrective actions we've put

in place, our safety record will improve.

I wish I could promise everybody in this room that nobody would get hurt the rest of the year. I wish I can. I can't. All -- all we could do is put these in place and then if something -- if an event occurs again, we'll have to look at it in detail and see what we can tweak to make things better. That's all I have to say.

CHAIR CONGDON: Thanks, Rich. I think Dave has a question.

MR. LOCHBAUM: Yeah, about seven, eight years ago, Exelon made a presentation at the N.R.C.'s Regulatory Information Conference on Industrial Safety and they seem to have a very sound robust program. So I was wondering, on issues like this, does Holtec do much benchmarking against industry practices to see if your standards and communications and stuff are at or above industries averages?

MR. BURRONI: I -- I have to pull that string. I know one of our major contractors is Champion. They have a whole safety team, right. So they look at some of their industry events that they're at the sites. Giordano does the same thing.

Right, looking at safety precautions at their sites, other -- other job opportunities there. So I would bank on them to give us anything that they need. But I'll pull the string to see what we do with Holtec.

MR. BURRONI: Thank you.

CHAIR CONGDON: Thank you. John, did you have anything?

MR. SIPOS: So one of the things we did tonight in order to have more time for community discussion was to shrink down a discussion of state oversight. We do have slides, they are on the website. I would recommend folks who are interested to go look at that. There are two things that I would like to just flag right now.

And, Tom, one of the things is I think it's -- it's -- it's on the last, probably in the last page of the deck, we put it in here. Right. So I think, you know, we've had a -- we've had a very good robust discussion tonight. One thing I want us to keep our mind, you know, keep our eye on is the reduction of risk, the reduction of sitewide risk where there could be an airborne migration of radiation in -- in, you know, N.R.C. parlance this is called a severe accident or beyond design basis

accident.

And the main site risk now remains the spent nuclear fuel in the spent fuel pools. I think there's -- there's good news. And there's also, you know, considerations to keep in mind going forward. And this slide shows what has happened I believe in the last 20 months since Holtec has taken over the site from Entergy.

Holtec and -- and I want to -- I want to acknowledge this with -- with Rich and his -- his colleagues here. Holtec has moved a substantial amount of spent nuclear fuel out of the Unit two spent fuel pool and into dry casks. Make no mistake, that is reducing risk. That is reducing risk to the community. That's reducing risk to the emergency planning zone and to the New York Metropolitan Area.

That's one point six casks on average per month, or 19.2 casks per year. That is much faster than what Entergy was doing and what Entergy had, you know, had suggested. So that is -- that is progress. That is risk reduction. And I -- I think that's important to acknowledge.

One other aspect is, I know Assemblymember Galef had asked on a number of

occasions. Well tell us about the exemptions. What are going on in the regulatory exemptions? This is where the request is made to the Nuclear Regulatory Commission. Oh, well, you have a generally applicable rule that you -- you promulgated through the Administrative Procedure Act notice and comment process. It applies generally to every single reactor site in the country.

And then various operators asked for an exemption from those rules. The N.R.C., you know, has a process for an exemption. I think as we have discussed in the past there is an exemption for the Post Defueled Emergency Preparedness Plan or P.D.E.P. That plan -- that -- that exemption request for that exemption request went in a while ago.

New York State submitted detailed comments on November 22nd, 2022. Those comments were not posted by the N.R.C. on publicly available A.D.A.M.S. Tom has followed up -- Tom Congdon has followed up with the N.R.C. about this in a follow up letter. I posted both of them on the D.O.B website. For folks who are interested in the exemption process, I would recommend you review that.

And again, this is an exemption

request to the Federal agency to the Nuclear Regulatory Commission. And if folks have concerns about those exemption requests, I would suggest advocacy, comments, letters, to the N.R.C. -- to the N.R.C. Commissioners, to the N.R.C. staff, and again to Federal elected officials. What is -- what is proposed is to reduce the emergency preparedness aspects that protect the host community around Indian Point.

And given the first topic I was talking about I would suggest that it is more than reasonable to maintain those emergency planning precautions until the last spent fuel assembly is out of the Unit Three spent fuel pool. So there is progress. Risk is re -- is being reduced. But risk is not zero. And those are two things to keep eyes on.

CHAIR CONGDON: Thank you, John. I want to turn back to the public statement comments and try to take at least the next five speakers. Tom, if you if you could come back. Okay I -- I understand if some of the D.O.B. members need to -- need to leave we -- we were ten minutes past what I said we would -- we would be so I understand. But I

do want to allow another five speakers to get onto the record, please.

MR. KACZMAREK: Absolutely. And we'll begin with Tina. I understood you wanted to defer your time to now.

MS. VOLZ-BONGAR: Yes. Hi. Thank you. Yeah, I'm very concerned, you know, about the sinkhole in Yorktown and Enbridge's response. And how there is -- doesn't seem to be any urgency or oversight on the whole process. And I'm happy to hear that my elected officials share that concern too. But it's sort of like, well, what are you going to do about it?

So when we -- the sinkhole happened we contacted expert, you know, Rick Kuprewicz about it and he said, you know, of course you got to check the integrity just what Enbridge is doing and also the welds. Is there any mention of the welds? No. So when the pipeline was being built, a lot of us looked and watched this process going on and looked at parts of the -- what the D.E.C. requires for good practices in building this thing.

And I mean, we have a record of it on their docket and everything else. And we just didn't

have the oversight through the D.E.C. for a lot of what happened with this pipeline. And especially in Blue Mountain. You want to see problems and erosion and everything else. You want to see a bunch of violations. Go to the pipeline, you know, segment in -- in Blue Mountain and take a look at that.

So the fact that the sinkhole happened was just not a surprise for us. So I've asked this board and my community presentation about the pipelines next to Indian Point and the integrity management systems. And so the integrity management systems of these pipelines is really about like how are problems looked at and how are they found.

This problem with the sinkhole was reported by somebody walking their dog on December 24th. So that tells you what Enbridge's integrity management system really is. So in my community presentation, I pointed out the fact that the National Transportation Safety Board has cited PHMSA and Enbridge.

Okay, they've -- they've -- they've cite -- they've made recommendations to them because you see, there's really no oversight. We really don't have any teeth here as we're seeing with some

of these Federal agencies and regulations, okay. So the Nat -- look at -- take a look at what the National Transportation Safety Board or you can watch my community presentation again and at the very end the recommendations that they make.

They make recommendations to Enbridge's Integrity Management systems and they also make a recommendation about PHMSA's evaluations of the P.I.R.s.

MR. KACZMAREK: You've got 30 seconds left.

MR. VOLZ-BONGAR: Okay, that's the potential impact rights. So, you know, the D.E. -- on PHMSA had, you know, with the O.R.N.L. risk assessment that's posted on the D.P.S. website and everything. It's just like they do not have these recommendations in them. So in terms of a risk assessment, it's really not a risk assessment. Because the real risks that PHMSA has found and are probably going to become policy in what two years or whatever are not being applied to the pipelines next to Indian Point. And so in the risk assessment, so --.

MR. KACZMAREK: Tina -- Tina, I

apologize. We're at three minutes.

MS. VOLZ-BONGAR: I know I'm out of time. But anyway, I just wanted to hear what Enbridge was going to say. And, you know, it's just very disappointing. And again, to hear about oversight that should be happening and it should be happening through our government, really. And it's that, you know, industry determines all of these things really, and -- and policy and regulations.

And, you know, here we are in the same boat and it'd be great to hear public safety and, you know, public health mentioned on the same lines as the spreadsheet. You know, the financial spreadsheet and the same -- with the same kind of urgency, that, you know, decommissioning is, you know, the deadline for that. All right. Thanks. That's it.

MR. KACZMAREK: Thank you. Next -- next, we'll -- we'll move back to the Zoom participants. I believe it's Mari Inoue.

MS. INOUE: Hello, can you hear me?

MR. KACZMAREK: Yes, we can.

MS. INOUE: Oh, thank you so much. I'm a resident of New York City and I'd like to express my concerns and a strong opposition to

Holtec's proposed dump of radioactive wastewater in the Hudson River. I'm concerned that such dumping can negatively affect the health of local communities and the sustainability of the environment.

As other speakers mentioned, there is no safe dose of ionizing radiation. All exposures are cumulative, and some isotopes are extremely long-lived and I'd like to emphasize that dumping of radioactive wastewater cannot be and should not be justified on the grounds that creating water with other radioactive wastewater is routinely dumped by nuclear power plants and other nuclear facilities.

I would also like to draw your attention that the Holtec's proposed dump is a direct threat to the universal human right to access a clean, healthy and sustainable environment. Universal human right to access a clean, healthy and sustainable environment was declared in the historic resolution that was adopted by the United Nations General Assembly in July last year. And the resolution calls upon not just governments, but also business enterprises, to scale up efforts to ensure a healthy environment for all.

In regard to training, there was a

scientific report published in December 2013 in the Journal of Environmental Radioactivity. In the report, the report is called current understanding of organically found tritium O.B.T. in the environment. And in this report, scientists highlighted that unlike for tritiated water, the environmental quantification and behavior organically bound tritium are not well known.

Therefore, any plans related to the discharge of tritium and radioactive material into the environment should be avoided based on the precautionary principle that Dr. Falvo highlighted. And I believe that New York Decommissioning Oversight Board recognizes its social responsibility to call for precautionary measures in order to protect --

MR. KACZMAREK: 30 seconds.

MS. INOUE: -- the public from exposure to harm. As Holtec's proposed action has a suspected risk of causing harm to the public and the environment. I strongly hope that the New York Decommissioning Oversight Board takes necessary steps to ensure that radioactive wastewater from the spent fuel pool of the Indian Point will be stored on site such as in the robust containers with leak prevention

and leak detection functions, instead of evaporating into the environment or dumping into the Hudson River or shipping it to the other communities. Thank you, sir.

MR. KACZMAREK: That's -- that's -- oh, thank you. Next, I'm going to offer Steve from Senator Gillibrand's office.

MR. KOLLIAS: Yes, thank you. So hi, I'm Steve Kollias. I'm Senator Gillibrand's Hudson Valley Regional Director. I want to thank Dr. Becker for what he had said. And I just wanted to say to Mr. Sipos as well we don't have a seat at this table. This is a -- and so the public knows, the federal representatives do not have a seat on the D.O.B.

So we don't have an opportunity to respond to these questions from constituents, probably from individuals here. But I wanted to respond to Dr. Becker that we are more than happy to meet with anybody who has a question about this. But we cannot and we're not allowed to sit at the table to have this -- to be part of this discussion unless I signed up to do this exactly what I'm doing publicly speaking and asking questions.

MR. SIPOS: So I just want to actually

clarify. My -- my comments were about federal representatives were in the vein of legislative oversight of two Federal agencies. Not necessarily, you know, within the four square corners of the Decommissioning Oversight Board. But these are federal agencies and perhaps there's opportunities for oversight.

MS. LEVENBERG: Is it not allowed, is it not allowed by the federal government or not allowed by ...

CHAIR CONGDON: No, it's -- the -- the D.O.B. is a -- is a state oversight entity was created by State Agency and we established the membership through the bylaws. So that's what he's referring to.

MS. LEVENBERG: I see.

MR. KACZMAREK: Next, we have Sally Jane Gellert on Zoom.

MS. GELLERT: Yeah, hi. I'll tell you what, my notes are really garbled. I'll send a written comment. Thank you. Save time.

MR. KACZMAREK: Thank you. Next, we have Joel Gingold.

MR. GINGOLD: Can you hear me?

MR. KACZMAREK: Yes, we can.

MR. GINGOLD: First of all, I'd like to thank the Board for this opportunity. My name is Joel Gingold. I live in Croton-On-Hudson, where I'm a member of the Village Sustainability Committee and also serve as a client or the Climate Environment Chair for CoHOPE indivisible. And -- and I spent about a 60 year career as a consulting nuclear engineer to the commercial nuclear power industry.

First, I am unalterably opposed to the dumping of the water into the Hudson. For a variety of reasons, most of which have already been expressed by others, I won't repeat them. I would also point out that the Hudson is not really a river. For much of the year, it's a tidal estuary and the waters in the river slosh up and down and rarely get discharged into the ocean. So whatever goes into the river will probably stay there for quite a long time.

My preferred method for the disposition of the water would be to solidify it and bury it. I would point out to those who have concerns with this, many of the radioactive components from this plant and all the other plants that are being decommissioned, are shipped to areas

usually in the West Texas, Idaho or wherever and they are buried. So, there will be a great deal of material from Indian Point that will be buried in the West.

To add whatever this will require, the material will be solidified. The bad actors will be immobilized. The whole thing will be buried with the other waste from the plant. I believe the storage of liquid on the site for 50 or 100 years is not a great idea, again, for reasons that have been mentioned by others.

But the one thing I would like to point out I have not heard mentioned that Holtec has faced this identical issue at a Pilgrim plant in Massachusetts. Everybody in the area is opposed to their dumping water into Cape Cod Bay. Starting with Senator Edward Markey and Senator Warren, for the state officials in Massachusetts and the local officials and the community groups and the environmental groups and the individuals who live in that area.

And Holtec insists that they are going to do it despite what anyone says. And I fear that we're going to face the same issue here. And if I

may segue from this point --.

MR. KACZMAREK: Quick interruption. You only have about 15 seconds left.

MR. GINGOLD: Okay, well, I'll save that for another time. Don't -- don't dump it in the river.

MR. KACZMAREK: Thank you. We are going -- we're going to get to one final public speaker, Theresa Kardos who's joining via Zoom. And following Ms. Kardos, we'll outline some other public statement opportunities.

MS. KARDOS: Can you hear me now?

MR. KACZMAREK: Yes.

MS. KARDOS: Great. As an environmental educator and field biologist, I feel very strongly that Holtec should not be dumping the -- - the spent pool water into the Hudson River. In addition to all the points everybody else made, I would like to remind everybody that climate change is stressing ecosystems and wildlife.

And we are also currently at a time when there is a serious and alarming decline in -- in wildlife species. We're almost at -- at a species extinction. And every little stressor is important

and we should not be doing this. I'm also morally opposed to our putting a burden on -- on other states and the transport of our nuclear waste can not only be a risk in transport, if -- if there's some kind of accident, but I mean, that's also the transport increases greenhouse gases.

I -- I -- I am also really concerned about the request for an exemption for -- for an emergency preparedness plan that should at least be in place until the last spent fuel is transferred especially considering that there are -- there -- there's a geological fault in the area and the two gas pipelines. You know, it's just that we really needed an emergency preparedness plan.

I also agree that we should have a permanent medical expert on -- on the panel and I'm probably nearing the end of my time period. So other comments, I guess I will submit in writing. Thank you very much.

MR. KACZMAREK: Thank you very much.

CHAIR CONGDON: Thank you, Tom. You have a slide to present? Yes. Great. So folks can still submit written comments via the Indian Point website. There are instructions here on the slide.

We encourage folks to submit questions and we take questions through the Q&A and recorded these. I see 72 or so. We will endeavor to have all of those answered before the next meeting of the D.O.B.

Next slide please. We encourage folks to sign up for updates. These are the instructions on how to subscribe to our document library and our service list. I understand it can be a bulky process, but it's well worth it and we can assist you if you're having technical difficulties getting on.

Next slide please. Again, just a reminder of the website for the D.O.B. dps.ny.gov/indianpoint. There's a wealth of information there and our next meeting will be on April 27th, 2023. As we said before, during this meeting we are also going to look for some times for the school monitoring working group to coordinate with the school and find time to meet with parents in the school community. And with that, I will adjourn tonight's meeting. Thank you all very much.

MR. PATTISON: Thank you, Mr. Chairman.

(The proceeding concluded at 10:00 p.m.)

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STATE OF NEW YORK

I, HOWARD HUBBARD, do hereby certify that the foregoing was reported by me, in the cause, at the time and place, as stated in the caption hereto, at Page 1 hereof; that the foregoing typewritten transcription consisting of pages 1 through 188, is a true record of all proceedings had at the hearing.

IN WITNESS WHEREOF, I have hereunto subscribed my name, this the 9th day of February, 2023.

HOWARD HUBBARD, Reporter

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