



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 23, 2022

MEMORANDUM TO: Shaun M. Anderson, Branch Chief
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

FROM: Tanya E. Hood, Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

A handwritten signature in blue ink, appearing to read "Tanya E. Hood", is placed over the "FROM:" section.

Signed by Hood, Tanya
on 12/23/22

SUBJECT: SUMMARY OF NOVEMBER 30, 2022, PUBLIC MEETING TO
DISCUSS EMERGENCY PREPAREDNESS AND
DECOMMISSIONING SECURITY

On November 30, 2022, a virtual public meeting was held by the U.S. Nuclear Regulatory Commission (NRC) to provide information related to emergency preparedness and security requirements for nuclear power reactor facilities as it relates to those undergoing decommissioning.

The meeting notice and agenda, posted November 18, 2022, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. [ML22333A794](#) and are posted on the NRC's public Web page at <http://www.nrc.gov/reading-rm/adams.html>. The presentation material provided is available in ADAMS at Accession No. [ML22329A077](#). Persons who do not have access to ADAMS or who encounter problems in accessing the meeting materials located in ADAMS should contact the NRC Public Document Room reference staff by telephone at 1-800-397-4209 or by email to PDR.Resource@nrc.gov. The public meeting was recorded and can be viewed on the [NRC's YouTube channel](#).

During the meeting, the NRC presented a high-level overview of emergency preparedness requirements and demonstrated how safety is commensurate to risk. Emergency preparedness requirements are not eliminated but aligned to the risk associated with the spent fuel pool. After shutdown, the risks associated with potential accidents is significantly reduced. Licensees must

CONTACT: Tanya Hood, NMSS/DUWP
301-415-1387

continue to maintain capabilities to mitigate a potential radiological event. Licensee must maintain an onsite emergency plan providing the classification of emergencies, and coordinate with offsite organizations (i.e., firefighting, medical assistance, etc.).

The NRC staff reiterated that spent fuel pools are robust structures that provide reasonable assurance to protect the public health and safety. The NRC staff provided a comparison of the site when a plant is operating and when it is decommissioned. This discussion led to greater insight regarding emergency planning zones. Emergency planning zones are planning tools to aid implementing pre-determined, prompt protective action. During decommissioning sufficient time is available to mitigate the accident or initiate protective actions as conditions warrant without the aid of an emergency planning zone.

The NRC staff stated that the physical security requirements, similar to emergency preparedness, where all licensees are required to establish security plans which provide reasonable assurance that adequate protective measures can and will be taken to protect public health and safety. Physical security regulations do not distinguish between an operating power reactor and one that is permanently shutdown/defueled. The scope of physical security protections are based on the safety function(s) that remain and must be protected.

The NRC will continue to conduct inspections ensuring physical security requirements are met, including inspections to evaluate changes to the security posture. The licensee is required to maintain a security force on site equal to the threat to the spent fuel. The cyber security protections are gradually reduced as safety, security, and emergency preparedness systems are removed from service.

The NRC staff also discussed independent spent fuel storage installation (ISFSI) protection. The licensee must provide protection for the ISFSI until all fuel is removed from the site. NRC approved Physical Security Plan and post 9-11 NRC Orders enhance ISFSI security. There are no cyber security regulatory requirements for the ISFSI. NRC performs ISFSI inspections periodically to ensure that the ISFSI security plan requirements continue to be met.

There were 99 participants in the meeting, including NRC staff, state staff, government staff, congressional staff, and members of the public. A list of the meeting attendees is enclosed, along with a transcript of the meeting. Members of the public were invited to attend and asked several questions. No public meeting feedback forms were received. Please direct any inquiries to me at (301) 415-1387 or Tanya.Hood@nrc.gov.

Enclosures:

1. List of Attendees
2. Transcript

SUBJECT: SUMMARY OF NOVEMBER 30, 2022, PUBLIC MEETING TO DISCUSS
EMERGENCY PREPAREDNESS AND DECOMMISSIONING SECURITY
Dated: December 23, 2022

DISTRIBUTION:

PUBLIC

PM File Copy

RidsNmssDUWP Resource

RidsNsirDpr Resource

RidsOpaMail Resource

RidsRgn1MailCenter Resource

DGarner, NSIR

JWeil, OCA

MHoskins, OCA

AdeJesus, OEDO

HRodriguez-Luccioni, OEDO

TKeene, OEDO

ADimitriadis, R1

ADAMS Accession No. ML22350A717

OFFICE	NMSS/DUWP/RDB/PM	NSIR/DRP/RLB/BC	NSIR/DPCP/MSB/BC
NAME	THood	JQuichocho	ARivera
DATE	12/16/2022	12/20/2022	12/21/2022
OFFICE	NMSS/DUWP/RDB/BC	NMSS/DUWP/RDB/PM	
NAME	SAnderson	THood	
DATE	12/21/2022	12/23/2022	

OFFICIAL RECORD COPY

LIST OF ATTENDEES

NOVEMBER 30, 2022, VIRTUAL PUBLIC MEETING

BY THE NUCLEAR REGULATORY COMMISSION

RE: EMERGENCY PREPAREDNESS AND DECOMMISSIONING SECURITY

Name	Organization
Ryan Alexander	U.S. Nuclear Regulatory Commission (NRC)
Shaun Anderson	NRC
Jeannette Arce	NRC
Tammy Bloomer	NRC
Mary Casto	NRC
Gregory Chapman	NRC
Kim Conway	NRC
Christian Dennes	NRC
Suzanne Dennis	NRC
Marilyn Diaz Maldonado	NRC
Diana Diaz Toro	NRC
Anthony Dimitriadis	NRC
Lisa Dimmick	NRC
Marlayna Doell	NRC
Darrell Dunn	NRC
Randall Fedors	NRC
Jonathan Fiske	NRC
Doug Garner	NRC
Stephanie Garza	NRC
Mark Haire	NRC
Tanya Hood	NRC
Timothy Hooker	NRC
Mitchell Hoskins	NRC
Todd Keene	NRC
Adrian Muniz	NRC
Charles Murray	NRC
Michael Norris	NRC
John Pelchat	NRC
Jessie Quichocho	NRC
Becca Richardson	NRC
Alison Rivera	NRC
Ed Robinson	NRC
Miranda Ross	NRC
Neil Sheehan	NRC
Todd Smith	NRC
Amy Snyder	NRC
Karl Sturzebecher	NRC

Binesh Tharakan	NRC
Amy Wagner	NRC
Greg Warnick	NRC
Bruce Watson	NRC
Blake Welling	NRC
Jen Whitman	NRC
Lynnea Wilkins	NRC
Braunilyn Baker	Public
Andrea Barker	Public
Jana Bergman	Public
Willie Bouie	Public
Richard Burroni	Public
Larry Camper	Public
Terry Carlock	Public
Clifford Chapin	Public
Willie M. Crawford	Public
David Crowley	Public
Tito Davila	Public
M Diaz	Public
Phyllis Dixon	Public
Dennis Delborgo	Public
Christine Dobert	Public
Jacquelyn Drechsler	Public
Courtney Eckstein	Public
Marilyn Elie	Public
Margaret Ellenson	Public
Rebecca Ellis	Public
Bridget Frymire	Public
Sally Gellert	Public
Lloyd Generette	Public
John Gibb	Public
Megan Glander	Public
Suzannah Glidden	Public
Sherrie Grant	Public
Beth Hammon	Public
Jennifer Henrickson	Public
Bettew Ann Jaster	Public
William Jeffries	Public
John Jernigan	Public
Matthew Johnson	Public
Michael Keegan	Public
Daniel Kenny	Public
Elliott Korb	Public
Chris Roache	Public
Susan Leifer	Public
Dave Lochbaum	Public
Elsa Lopez	Public
Peter Loughran	Public

Matthew Marzano	Public
Jeffrey Mazzaferro	Public
Dana McGill	Public
Charles Moore	Public
Eileen Moore	Public
Lisa Morrison	Public
Patrick O'Brien	Public
Rebecca Palmer	Public
Alyse Peterson	Public
Wagnus Prioleau	Public
Heather Roth	Public
Thomas Scardino	Public
Geri Shapiro	Public
Alberto Sifuentes	Public
Holly Van Sicklen	Public
Mark Van Sicklen	Public
Alberto Sifuentes	Public
Alice Slater	Public
Susan Spear	Public
Kaci Studer	Public
John Sullivan	Public
Tina Volz-Bongar	Public
Jennifer Wacha	Public
Brandon Warburton	Public
Ellen Weininger	Public
Matthew Widener	Public
Roger Witherspoon	Public
Walter Wittich	Public
David Young	Public
John Woytak	Public

TRANSCRIPT

NOVEMBER 30, 2022, VIRTUAL PUBLIC MEETING

BY THE NUCLEAR REGULATORY COMMISSION

RE: EMERGENCY PREPAREDNESS AND DECOMMISSIONING SECURITY

0:00 – 2:48 – Tanya Hood

Welcome everyone. My name is Tanya Hood and it is my pleasure to provide you with introductions for this meeting. It is being held between the US Nuclear Regulatory Commission, hereafter being referred to as the NRC. This meeting is to provide information related to emergency preparedness and security requirements for the nuclear power reactor facilities as it relates to those undergoing decommissioning. This meeting is scheduled from 3:00 PM until 4:30 PM Eastern Standard Time. This is a question-and-answer session. That allows attendees an opportunity to ask questions of the NRC staff or make comments about the issues discussed throughout the meeting. However, the NRC is not actively seeking comments towards regulatory decisions at this meeting. This meeting is being hosted virtually through the use of Microsoft Teams. Should you have trouble with the teams application, I recommend that you first use the Microsoft Teams link that has been provided in the meeting notice as opposed to the Microsoft Teams app. If you still have difficulty, then disconnect. and try to reconnect to the teams meeting or if you're using the telephone, it is easier to use the telephone conferencing number that has been listed in the public meeting notice. The Teams meeting has been set up, as I stated previously, as a webinar. So, microphones are disabled for the moment. When we get to the question-and-answer portion of this meeting, at that time, please type your questions in the chat box so that we can share them when we arrive. I will start with the questions and comments that are in the chat box and then go to the phone lines. If you're on the phone, I'll ask you to come off of mute and share your questions or comments when we arrive at that portion of the meeting. I will then provide more instructions about how you can do so at that time. At this point, I'll take a few moments to introduce a few participants for this session and then turn it over to Shaun Anderson, Chief for the Reactor Decommissioning Branch in the Division of Decommissioning, Uranium Recovery, and Waste Programs from the Office of Nuclear Materials Safety and Safeguards. Today, we have Jessie Quichocho, Chief of the Reactor Licensing Branch in the Office of Nuclear Security and Incidence Response. Doug Garner, Security Specialist, in the Materials Security Branch. We also have other participants that are from the NRC staff that will introduce themselves when they are ready to speak. At this time, I want to let you know that if you want to send information regarding feedback to this meeting, you will be able to provide that information to me via e-mail and I will share a slide at the beginning and at the end of this meeting so that you can be aware of where to receive your meeting feedback forms. Now our return to meeting over to Shaun Anderson for our opening remarks. Shaun.

2:49 – 4:07 – Shaun Anderson

Thanks, Tanya. I appreciate it and thanks everyone else for joining us today. I just want to provide a little bit of context with between, you know, I guess for while we're here. In the recent months, there's been a lot of increased interest from members of the public, state representatives, and advisory panels related to emergency preparedness and security reviews as they relate to decommissioning activities, even the exemptions and some of the

requirements. You know we've been providing numerous written responses and verbal responses to questions regarding some of our license reviews and also inspections in that area. We thought, you know, this might be a good opportunity just to have a webinar to provide some of this background and some provide some context to a more broad audience. So, we thought this would be a good way, a good opportunity to provide some of that feedback and, you know, we're also always welcome some of the feedback from the members that are stakeholders and members of the public. So, after the meeting feel free to provide some of the feedback to this session as part of the meeting feedback forms. We're also providing Presenting at the New York State Decommissioning Oversight Board regarding some of the ISFSI questions and specific activities at Indian Point on December 7th. So, with that, you know, I just want to thank everyone for coming here again and we can transition over to Jessie. Let's start the presentation.

4:14 – 14:18 – Jessie Quichocho

All right. Uh, thank you. Shaun, can you hear me?

4:18 – 14:19 – Jessie Quichocho

Yes, loud and clear.

4:20 – 14:33 – Jessie Quichocho

Great. Thank you. Good afternoon. My name is Jessie Quichocho and I am the Chief of the Reactor Licensing Branch in the Office of Nuclear Incident and Security Response. I'd like to take a moment to describe what I oversee. I oversee the technical reviews of emergency preparedness, amendments to NRC licenses from a variety of licenses. We're talking decommissioning, operating reactors, research and test reactors, medical facility isotopes, and production facilities. So, my branch really oversees a large amount of emergency preparedness reviews. With me attending today is Michael Norris. He's one of our Senior Emergency Preparedness Specialists. Because he has, gosh, over 30 years of experience in emergency preparedness. Thank you for those of you taking the time to attend this meeting. Uh, next slide. Alright, um. When the NRC approves an operating license, licensees are required to establish emergency plans that provide reasonable assurance that adequate protection measures can and will be taken to protect public health and safety in the event of a radiological emergency. It is important to note that NRC emergency preparedness regulations do not distinguish between an operating reactor and one that is permanently shut down in defueled. Uh, next slide. We're on slide five, I believe. OK. Thank you. The NRC mission is focused on safety of the public. As such, these emergency plans that are established for operating reactors provide capabilities to mitigate potential radiological events, onsite emergency planning that provides classification of emergencies, notification of off-site government authorities, and coordination of off-site organization response to name a few. Next slide. After the plant is shut down, the risk associated with potential accidents is significantly reduced. This is because the majority of the risk during plant operation is when the reactors in operation is in use. Since the current NRC emergency planning regulations do not distinguish between an operating reactor and one that is permanently shut down and defueled, the exemption process is used to seek regulatory relief commensurate with the risk at a facility. While ensuring reasonable assurance to public health and safety. Next slide please. This slide shows the life cycle of an operating reactor plant from the point of fuel in the reactor vessel. Fuel in the spent fuel pool and finally in dry cask storage. On the horizontal line at the bottom of the figure compared to the relative radiological risk on the vertical line. As you can see in this figure, when the fuel is in the spent fuel pool and

preparations for and during decommissioning, the radiological risk become extremely lower as compared to when the fuel is in the reactor vessel during normal reactor operations and another step lower when the fuel is moved to dry cask storage. Next slide please. This slide identifies the regulations that licensees use for exemptions to seek regulatory relief. I do want to point out that, unlike license amendments where licensees must comply and meet regulations, the exemption process is one where licensees are seeking regulatory relief. One of the underlying purposes for exemptions is because the regulations, as written, may not be necessary to achieve the underlying purpose. I'll provide an example of this later in my presentation. Next slide please. So, going back to what I said previously, when an operating license issued, is issued, an emergency plan is approved because of the lower risk at the site and as a plant enters decommissioning licensees will submit an exemption from NRC regulations. When an exemption is requested by a licensee and once approved by the NRC, the NRC reduces the requirements consistent with the risk of the facility and approves a permanently defueled emergency plan. The exemptions would remove operating reactor emergency action levels, such as automatic reactor trips, inability to shut down a reactor. But will still, uh, but would still keep some emergency action levels associated with the configuration of the plant during the decommissioning, such as spent fuel pool accident. The emergency preparedness requirements for wet and dry storage are the same in part 72. Thus, when you go from a wet spent fuel pool to a dry cask storage exemptions are not necessary. Next slide please. All right, a few of the significance considerations during the NRC staff technical review are shown on this slide. Uh. Traditional accidents that are on. that are the most risk to the plant are no longer applicable such as loss of coolant accident, steam generator tube rupture. The risk to the public is more focused on few handling, accident and cask drop. Two months after shutdown, radioiodine has decayed away and is no longer a concern. When fuel is in the spent fuel pool, there is no driving force like an operating reactor to force the water out, so the focus will be on ensuring leakage from the spent fuel pools are addressed. And because these events evolve slowly, the NRC ensures the emergency plan provides mitigation measures. And if necessary, adequate time to conduct protective actions. Next slide please. This slide shows the studies performance for spent fuel pool events. In 2000, the NRC went into rulemaking for decommissioning reactors and issued NUREG 1738 as its regulatory basis. The staff uses this regulatory basis as part of our evaluation for exemptions. This rulemaking was stopped due to events of 911 and other agency priorities in 2001. More recently, the NRC performed and issued a study on how earthquakes affect spent fuel pools. NUREG 2161, which provided results that are consistent with earlier research conclusions that spent fuel pools, are robust structures that are likely to withstand severe earthquakes without leaking. The NRC continues to believe, based on this study and previous studies, that high density storage of spent fuel in pools protects public health and safety. Next slide please. Uh, this table is here to show a few of the differences of what is contained in an emergency preparedness plan between an operating reactor and a decommissioning site. For example, an operating reactor has a formal off-site radiological emergency preparedness plan with its focus on prompt protective actions for the public versus an off-site response from first responders, medical, and law enforcement to the site. In the highly unlikely event at a decommissioning site, should protective action be needed to protect the public, a comprehensive plan is in place similar to a hazardous waste traffic accident, for example. Another example is the difference in event classifications, where a classification for operating reactors may lead up to a general emergency. However, for a decommissioning site the highest level may be an alert. Next slide please. This figure provides a pictorial that shows an emergency planning zone for a typical operating reactor. An emergency planning zone is a tool to aid implementing predetermined prompt action. During decommissioning, sufficient time is available to mitigate the accident or initiate protective actions as conditions warrant without the aid of an emergency planning zone. Next slide. The figures here shown, illustrates the difference of an emergency planning zone at an operating reactor measured in miles on the

bottom right of the slide. Compared to the boundary at a decommissioned facility measured in meters on the top left. This smaller sized boundaries based on lower radiological risk at this decommissioned facility. Next slide. Here, since 2014 is a list of nuclear power plants that the NRC issued exemptions for where the staff sought Commission approval. This would conclude my presentation, Tanya, back to you.

14:35 – 14:47 – Tanya Hood

Thank you so much for that, Jessie. And now we will have a security presentation from Doug Garner and after we have that presentation, we will go to the questions and comments from the public. We thank you so much for your time and your patience, Doug.

14:53 – 18:41 – Doug Garner

Hi, can you toggle the slides please? Hi, good afternoon. My name is Doug Garner. I'm a Security Specialist in the Material security Branch of the Office of Nuclear Security and Incident Response. My roles and responsibilities in the branch are primarily related to reviewing ISFSI security plans, any license amendments, or requests that licensees may submit and evaluating those. Similar to emergency preparedness, all licensees are required to establish security plans which provide reasonable assurance that adequate protective measures can and will be taken to protect the public health and safety. These security requirements are contained in 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," and NRC security orders. It's important to note that the physical security regulations do not distinguish between an operating reactor and one that is permanently shut down or defueled. Next slide please. This slide shows a regulatory approach as a licensee transitions from an operating power reactor to a dry storage independent spent fuel storage installation or ISFSI. A licensee notifies the NRC of permanent cessation of operations and, of course, with applicable regulations. During this time, 10 CFR 73.55 and the NRC security orders still apply and the protective strategy remains exactly the same as an operating reactor, while the fuel remains inside the spent fuel pool. Fuel is only moved and stored on site in the ISFSI when appropriate conditions are met. Next slide please.

This slide indicates that the scope of the physical security protections are based solely on safety functions that remain, and it must be protected. Licensees are required to maintain security force on site that is equal to the threat to the spent fuel. And a licensee, they can request licensing actions or exemptions to modify the security plan program for the protection of the pool. Licensees will continue conducting... The NRC continues to conduct inspections ensuring the physical security requirements and ensure that they are met, including inspections to evaluate any changes to the security posture. Cyber security protects are gradually reduced as safety and security and emergency preparedness systems are removed from service. The Cyber security rule 10 CFR 73.54 is no longer applicable after cessation of operation letters have been submitted. However, the conditions of the license that requirement remains in place. The license may submit a license amendment requesting removal of the cyber security license condition after all the fuel is moved to the spent fuel pool and has been sufficiently cooled. The licensee must provide protection for the ISFSI until all fuel is removed from the site, NRC approved physical security plan and post 911 security orders are in place to enhance the security. There are no cyber security requirements for an ISFSI.

18:55 – 20:19 – Shaun Anderson

And I'll just jump in here. I just want to summarize a couple of aspects here and just touch on the inspection program itself. Just a reminder, the NRC, we established an inspection program

from the beginning, from the site, from construction, and it goes all the way until the license is terminated. So as long as there's fuel on site, the NRC is going to continue to inspect throughout the decommissioning for both the security requirements and EP requirements. So, our inspectors have conducted several inspections over decommissioning and ISFSI programs for the for many years. Our inspection program remains robust and continues to ensure risk inform safety focused areas and that the inspection focus is designed to effectively monitor the licensee's performance. Next slide. And I know the team and everyone has already covered this, especially Jessie and Doug, but just the summary of quick points here is just to remember that the EP and security requirements are not being eliminated. They're just being adjusted based on the overall risk and licensees must maintain emergency plan and physical requirements remain in place. ISFSIs are secured 24/7, 365 days of the year. Again, periodically throughout the year throughout the life of the license, the NRC will continue to provide our independent oversight and inspections through license termination and I'll pass it back to Tanya and see if we can get some questions queued up from members of the public.

20:25 – 22:00 – Tanya Hood

Thank you so much for that Shaun. At this time, I want to let those in the public know that you have the opportunity to type your information inside of the chat box. We are now at the question and answer portion of this meeting. So, we want to let you know that as you type your information into the chat box, I will begin sharing the questions or comments that you have at that time. Once I've completed the discussion that's inside of the chat, I will then go to those that are on the phone. At this time, I want to let you know that as we go through this presentation, let me share really quick on the screen. How you can, as a member of the public, when you're on the phone, be able to participate in letting me know by raising your hand. For those that have called in, we want you to participate in this meeting. You can see from the information and directions that's currently on the screen that you raise your hand by selecting star five. Once you do so, wait about four seconds, then you can unmute yourself by selecting Star 6. You will then get the opportunity to speak into the meeting and I will know who at that point will be able to participate in that discussion. At this time, I will pause for a few moments and then go to the chat box so I can read those questions that we have from the members of the public. Thank you so much for the NRC team that are supporting the chat with me. Here, we have a message from Tina Bongar.

22:01 – 22:58 – Tanya Hood reading question from Tina Bongar

I apologize if I've mispronounced your name. It says the NRC OIG determined that the Risk Assessment methods about the AIM pipelines were deficient. The NRC has not provided the oversight for a proper risk assessment of the AIM pipelines and plant. How has the NRC done adequate emergency preparedness plan that doesn't include any kind of gas pipeline rupture at the site? A major proponent and I'm not able to read other things that was written in that one. Are there currently anyone inside of the NRC staff that would like to address that question. If not, this is something that I know that we can take back. Because I want you to also be mindful that as we go through the discussion points in this meeting, we will do our best to ensure that we address as many questions as possible in the allotted time. But if we are not able to get to your comments or questions, please be mindful that we will get the opportunity, as a staff, to look at them after the meeting.

22:59 – 23:01 – Shaun Anderson

Mike Norris will take that question.

22:59 – 25:01 – Michael (Mike) Norris

Yeah. This is Mike Norris again. As Jessie indicated, I'm a Senior Emergency Preparedness Specialist here at the NRC. The emergency action levels are based on hazards for the spent fuel. It doesn't matter what the cause of the event was, it's the results of the event that the emergency action levels are based on. So, with respect to an ISFSI, a dry cask storage installation, if there's an event, whatever type of event happens, if it causes a breach of the confinement boundary, there are emergency action levels that drive the emergency plan to go into effect and the licensee will make mitigative response to that. Same with the spent fuel pool. It doesn't matter the cause of the event, it's the results of the event. If there's an issue, an event that happens that causes a reduction in the coolant level. You know, loss level, loss of all cooling, there are emergency action levels that would be triggered. Basically, to cause the emergency plan to go into effect and the licensee would perform their mitigative actions using whatever their plan procedures are, whether it's their mitigative strategies, their extra equipment, the diesels, or the fire hoses to try to get water on it. So the emergency plan, it doesn't, it's not specific to any event it's specific to the results of that event.

25:02 – 25:33 – Tanya Hood

Thanks for answering that Mike. We have a few more questions that are inside of the audience. Give me a few moments because I want to stop sharing the screen so we can get the opportunity to have more of a face to face engagement. There is a hand that I saw raised earlier. I want to be certain that the person that raised their hand, was there a comment that you've already provided it in the chat box. I was going to read those first and then I will go to those whose hands are raised. There was one more question that I thought I saw.

25:34 – 25:58 – Tanya Hood reading question from Larry Camper

The question by Larry Camper asking about an overview of the proposed changes for security and EP in the ongoing decommissioning rulemaking. He wants to cite the proposed differences for the basis. Which of the members of the NRC staff would like to address that question? I can go to the slide that we have already prepared for the comparison. If you would like for me to do that.

25:59 – 26:30 – Michael (Mike) Norris

This is Mike Norris again. To be honest I believe, and I'm not an expert on the decommissioning rulemaking, that with respect to emergency planning, what we are currently doing with the exemption process, and have been doing since 2014, is consistent with the ongoing decommissioning rulemaking.

26:37 – 26:50 – Doug Garner

With regards to security, this is Doug Garner. To date, we have not received a licensing amendment request from the licensee to modify the security program.

26:51 – 28:13 – Tanya Hood

Thank you for answering that question. I know that there is a few comments that's in the chat box. So, I ask for you bear with me as we go through and read a few of them. At this time, I will have member of the public whose hand has been raised, that I noticed previously, come up. I

will have you made a presenter and unmute you at this time. Miss Susan Leifer, please let me know if I pronounced your name correctly or not. You are now unmuted. So, if you are able to speak, I have unmuted your line. Let me try this one more time. Ms. Leifer, you are unmuted, you can now push the mute button yourself. I have unmuted you on my end. I'll move to the next member whose hand has been raised. Roger Witherspoon. I have now know muted your line. You can unmute yourself and ask your question at this time.

28:14 – 28:15 – Roger Witherspoon

Can you hear me?

28:15 – 28:16 – Tanya Hood

Yes, we can.

28:17 – 28:45 – Roger Witherspoon

OK. Thank you very much for hosting this. While the plant was operating, there were problems with breaches in the communications of its security staff. Have those been addressed or has that responsibility been shifted to Holtec, and if so, have they found the cause of the intrusions and blocked them.

28:50 – 29:15 – Anthony Dimitriadis

This is Anthony Dimitriadis. I think I could take that one. I'm aware of a of a number of instances where that happened during an exercise. Correct. Correct. Yeah, that has been addressed. And I think that wasn't like over a long period of time. But yes, that that's been corrected. Of course, that would be Holtec's responsibility at this point. At the time that you're referring to, the licensee was Entergy and now it's Holtec.

29:16 – 29:17 – Roger Witherspoon

But they have corrected that?

29:20 – 29:22 – Anthony Dimitriadis

As far as I'm aware, yes.

29:23 – 29:28 – Roger Witherspoon

Did they find who was intruding, or did they simply block the intrusion?

29:29 – 29:36 – Anthony Dimitriadis

I don't know if they found who did it, but they did block the capability to do that.

29:37 – 29:28 – Roger Witherspoon

Thank you.

29:37 – 29:38 – Anthony Dimitriadis

Without getting into the details.

29:39 – 29:40 – Roger Witherspoon

OK, thank you.

29:41 – 29:42 – Anthony Dimitriadis

Sure.

29:47 – 29:56 – Tanya Hood

Thank you so much for addressing that Tony. We do have another question that's inside of the comment that I see from Dave Lochbaum. My apologies, the screen moved on me.

29:57 – 30:04 – Tanya Hood reading question from Dave Lochbaum

Without naming sites. What kinds of EP and security findings at decommissioning plants have NRC inspections identified?

30:06 – 31:15 – Anthony Dimitriadis

Thank you, Tanya. So, I saw that question by Mr. Lochbaum. Good question. I'm not aware of any EP findings in Region 1 at least, which is where I'm a Branch Chief with oversight for decommissioning reactors. But for security, there's been a number of violations. We call them findings as the number of results, not as part of the reactor oversight process that we administer for operating reactors, but for security, to make a long story short, there's been a number of violations that we've identified and the licensee has addressed in accordance with their corrective action program, as mandated. One was related to intrusion detection and alarms. So, that's one thing that was addressed and another one was related to weapons of maintenance that was not done properly. I think that they're the two major things that we've seen. That's basically, the two groups of categories that we've seen. There hasn't been a lot of those, but I would say that less than a handful.

31:21 – 31:44 – Tanya Hood

Thank you so much for addressing that as well. Going through the comments. I see that there is another hand that's raised. I'll try to go back to the hand that was raised at this time. I will raise you up to be able to unmute. Tina Bongar. If I have not pronounce your name correctly, my apologies. You are now unmuted. You can speak at this time.

31:45 – 32:16 – Tina Bongar.

Yes, hi. I would like somebody at the NRC to address this issue, which is that we have found that the Holtec workers who are doing the decommissioning have not been trained in a gas pipeline emergency. It's of grave concern and we voiced these with the Decommissioning Oversight Board, but I'm wondering if somebody at the NRC can address this.

32:18 – 32:19 – Anthony Dimitriadis

Tanya, I could take that.

32:20 – 32:21 – Tanya Hood

Appreciate it, Tony.

32:21 – 33:48 – Anthony Dimitriadis

Thank you. Yes. So, for a pipeline rupture, of course it would be very serious, and we anticipate that not to be happening. But your question related to how the workers at the site, whether they are Holtec or contract workers at the site, what training they would require is not. Right now, it's not part of the requirements that we have our licensees do. Of course, they do have general emergency requirements and we would look at those. So we can look at those during routine inspections. But like was said before by Mr. Norris, the general emergency response is hazard oriented and we certainly want our licensees to have their workers have people be ready to respond to some emergency like that. But of course, that would be a very extreme case and we don't expect that to be, you know, a normal thing. Of course, but we can take a look at that to see what emergency response training the workers would have to evacuate the site and things like that. So, we can take a look at that.

33:49 – 33:55 – Tina Bongar.

May I ask another question too? May I ask another question?

33:55 – 33:56 – Anthony Dimitriadis

Sure

33:57 – 35:42 – Tina Bongar.

OK. So you know, there's many of us in the Community who feel like we need a written protocol that involves the possibility of a gas rupture and then also radiological release. I understand that the risk is a lot less, but we on the ground here, I can see Indian Point from my second floor window. You know, we don't have a plan, a community plan, or anything that's been communicated to us about a protocol in case there's an emergency. So, I really, you know, and I understand that this is a regulatory, you know, chaotic mess. But I want to keep, you know, keep it front of mind. So, you know, what kind of advocacy we need here in this community while you're doing the decommissioning. I mean, there are all sorts of aspects of this that are, you know, that really feel. Uh, you know, there's no oversight in a sense of what these emergencies are. For instance, you know, we know that Indian Point shut down during Sandy, right? But we don't know if that's being or if that's something that there's mitigation for. Has there been any mitigation for that? So, there really any mitigation when Indian Point was a target in 911. So, those are the major. I just wanna tell you what our community concerns here. In looking at your emergency plan.

35:43 – 36:50 – Anthony Dimitriadis

Right. Thank you. Thank you for your question. So, we don't operate the facility, we regulate the facility for the work that's being done. As regulators, I can tell you that the requirements to have

plans for, what's typical that would be from an operating plant, are not required for decommissioning plant, because the hazards are so significantly reduced. Having said that, there is no obstacle for the Decommissioning Board to connect with Holtec to have something like that in effect. Going back to your other question or comment about, there's no oversight. There absolutely is oversight. My staff and I know Jessie's staff and Shaun's staff have a very strong oversight of the facility during decommissioning. I just want to emphasize that we work very hard to make sure that that is done effectively. Jessie, did you want to add something?

36:51 – 38:01 – Jessie Quichocho

Yeah, if I may. I just wanted to, I want to say thank you. Thank you for your comment. In my branch, I oversee these technical reviews. They are complex and I wanted to say that we have very knowledgeable individuals that look at these analysis and evaluate them and are very diligent in what we do in ensuring that these sites, whether it's a decommissioned facility, whether it's a wet storage, dry storage, dry cask storage or even an operating reactor. That they have the capabilities to mitigate, and conduct, and ensure emergency preparedness plans are effective. So, I just wanted to let you know that we do look at this. We scrutinize the analysis. I just wanted to reach out to you, to let you know that that's what we do here at headquarters for these license reviews. That's all.

38:04 – 39:04 – Tanya Hood

Thank you for that, Jessie. At this time we thank you, Miss Bongar for your comments. I'm going to take a few moments and ask members of the public that are currently on the phone for your opportunity to comment. If you would like to speak, please raise your hand by pressing star five. Once I identify you, I will give you the opportunity to have your mic unmuted and then we will move on with other comments or questions at this time. So, let's take a few moments for members of the public that are on the line. You can press star 5 if you are currently on the phone. That way we will get the opportunity to know if you have a comment or question that you would like addressed. OK, seeing none. At this time. I'll bring Miss Ellen Weininger, if I mispronounced your name, my apologies for that, to ask the question that you have at this time of the staff you're currently unmuted. Please unmute yourself and ask your question.

39:05 – 42:52 – Ellen Weininger

Thank you. Thank you. Can you hear me? Yes, I can hear you now. Thank you very much and thank you for the opportunity to comment and thank you for the opportunity to view this important webinar. Appreciating the comments that have been made and presented about emergency for, you know, first responders, emergency planning. You know we're in uncharted area here with decommissioning at a nuclear facility. That is the only nuclear facility in the country that has three massive large diameter, high pressure gas transmission pipelines traversing the property. So, right there, we have a unique situation and emergency planning that may normally be in place for other nuclear facilities simply doesn't necessarily apply here because of this dangerous co-location of these hazardous kinds of infrastructure. One of the things that has been mentioned is that even as decommissioning is proceeding, that there aren't even any markings of the pipelines and the right of ways so that various decommissioning activities can go on either within a right of way of the pipelines or even in proximity to those rights of way and even Enbridge in its own materials mentions the importance of oversight, yet there is no oversight. Also, in fences guidance they actually indicate that operators must control construction and pipeline right of ways and ensure that they're carefully monitored to keep pipelines safe. I mean this is, you know, convergence of decommissioning and pipeline

infrastructure with the pipeline ruptures being, according to PHMSA's data, not uncommon. And especially in newer pipelines. There is a new pipeline that was constructed at that location back in 2016. So again, I appeal to you to address this unique situation and not use the template of these other facilities that you listed like Pilgrim and Vermont Yankee and the other ones. That you had on one of your slides. Because this is different, and indeed the emergency instructions for residents conflict with each other, and really leave residents in a totally unprepared and dangerous situation. So, if you can answer that question in terms of how will you approach this unique situation? It's unprecedented. Thank you.

42:56 – 44:04 – Anthony Dimitriadis

Thank you for your comment. I just wanted to mention two things about the pipeline. One is that the NRC has done two separate reviews of the pipeline, one in the 2013 time frame and again in the 2018 timeframe. Separately, right now, or in the recent past, the Department of Transportation, which has the authority about pipelines such as this, is actually doing a study right now, and it's hoping to release their results in the... soon. In the next six months. So, it does not fall on deaf ears. We've done two separate detailed inspections. Specific to the plant, unrelated to Pilgrim and other sites, and we've have the results. The first ones were questioned and so the NRC initiated another review about it. Separately, of course, our Office of Inspector General did the same and separately, after all of that, the Department of Transportation, is also asked to take a look at this and they're looking to issue their report in the in the near future.

44:06 – 44:42 – Karl Sturzbecher

So, I'm Karl Sturzbecher. I'm the Project Manager for Indian Point. This concern we started last year when we have our weekly meetings with Holtec. We have a line item that they discuss with us what work they're doing near the pipeline. They have a procedure that we have set up where they have to talk to Enbridge. We have those discussions every week or every biweekly. So, that's another item. I mean, that's been a year now that we've been monitoring this.

44:43 – 45:26 – Shaun Anderson

Thanks, Karl, and thanks for that question. We apologize that this slide comes off as if it's just a similar review, but every site, you know, is evaluated on their own merits and we are hearing your concerns. A lot of concerns that are related to the pipeline itself, and potential ruptures, and making sure there is some type of communication to the community in terms of what are the actions that should be taken if there is an event. That's something we can take back to some of the state and local contacts that we have. That we communicate with frequently with the Agency so we can make sure we communicate and relay the concerns that we're hearing today. Tanya do you want to move on to the next question.

45:26 – 45:34 – Tanya Hood

Yes, there is another question that has been asked. How often does the NRC visit sites during the decommissioning process every year?

45:36 – 46:04 – Shaun Anderson

I guess, I can kick that off. Yeah. So, the decommissioning activities are related to the frequency of our visits. Inspections are related to the risk activities that are actually going on site as they're actually undergoing physical decommissioning. The inspectors are there much more frequently

than if they are at the site when not a lot of activity is going on. However, they are still providing frequent monitoring throughout the life of the license. Tony is on the line. So, Tony would have more on that.

46:05 – 47:31 – Anthony Dimitriadis

Sure, yeah, so.

The number of visits, our inspection activities, are commensurate with the risks that are associated with the actual decommissioning. So, what's decommissioning? Decommissioning involves dismantling and taking apart the site, right. So when they, when the site, initially shuts down and starts planning the decommissioning, there may not actually be a lot of physical activity. So, our reviews are typically may not be on site as much as when they're actually cutting and dismantling certain things that involve radioactive materials, so it does vary. So, it depends on what's happening on a given week or month or things like that. So, early in the process there may not be a lot of on-site inspections. There might be, there's a lot of review of course, and a review of their plant and things. But as the site begins to dismantle, cut the reactor vessel internals and things like that, our inspectors are on site more than other times when that activity is not done. Now, it's important to also state that we are not there the same as we are at operating reactors, where we have resident inspectors. However, that's been deemed that this is what we think that is appropriate given the risks associated with the decommissioning. I hope that answers your question.

47:34 – 49:11 – Tanya Hood

Thank you so much for answering that Tony. We do have, Ms. Susan Leifer, I believe. If I have mispronounce your name. My apologies for that. You are now unmuted. You can ask your question at this time. Susan, you can unmute yourself. Susan, I'm not certain what device you are using. It seems like you're on a laptop. There is a mute button that's next to you at the top. It says mic. If you can use that, if not, we can move on to the next question. I'll give you a few moments to try and locate that. We'll come back to Ms. Susan again. We have Marilyn Elie. You're unmuted at this time. Please share your question. Marilyn, are you able to unmute yourself? You are unmuted at this time to be able to ask your question. Let me move on to the next one. Give me a few moments. Let me go back to the chat. To see if there's another comment that has been asked? Yes, Ms. Glidden, the link, there will be a link available and provided when the meeting summary is submitted so that you can get access to the slides. They're currently available on the public meeting website and we'll have the link available when and provide the meeting summary for this meeting.

49:12 – 49:28 – Tanya Hood reading question from John Sullivan

A person is asking, does the NRC work with the county, who we are told will be in charge of an emergency regarding shelter in place versus evacuation. Will someone at the NRC staff like to address that question at this time.

49:30 – 49:33 – Michael (Mike) Norris

Can you repeat that? This is Mike Norris. Can you repeat that again?

49:34 – 49:45 – Tanya Hood reading question from John Sullivan

Does the NRC work with the county? Who, we are told, will be in charge of emergency regarding how to implement shelter in place versus evacuation.

49:30 – 50:43 – Michael (Mike) Norris

Uh. Not really. The offsite protective actions to the public are either a county responsibility or a state responsibility, depending on the state. The NRC is only, the emergency plan only really addresses the onsite. And we relieve, you know, we. We respect the authority of the offsites to protect the public. So no, we don't. We don't tell them what to do. We have guidance for recommended shelter versus evacuation, but that's just guidance because it's all under the authority of the offsite authorities. Not the NRC.

50:45 – 50:58 – Anthony Dimitriadis

Mike would it be fair to say that the evacuation or sheltering would be a very, very remote chance in a decommissioning site?

50:59 – 51:20 – Michael (Mike) Norris

It would be for a radiological release at a decommissioning site because all the studies show that any release would be very small, if any. So, yeah, there would not be, it's a very highly unlikely event at a decommissioning site versus a reactor.

51:25 – 51:27 – Anthony Dimitriadis

You mean an operating reactor?

51:28 – 51:31 – Michael (Mike) Norris

That's what I said I thought.

51:32 – 51:44 – Tanya Hood

At this time, we'll go back to those that are in the Teams that have their hand raised. John Sullivan, you're currently unmuted at this time. You can unmute your mic.

51:45 – 53:00 – John Sullivan

Hi I'm the person who asked the question about the NRC working with the county. I want to just expand upon that a little bit as people of the NRC probably realize, we are in a very heavily populated area. Even though it's an unlikely event that there would be a large radiological release, what we get from the county right now is just like a trifold that says, don't worry, we'll tell you whether the shelter in place or evacuate. I could just see chaos. You know, it would be impossible to deal with this. So, I would encourage the NRC to work very strongly with Westchester County about guidelines. I'm assuming you would have to deal with weather as well as, what the event is. So, we had a DOB meeting. The county kind of stepped up and said don't worry, we'll take care of this, but we've yet to see anything provided in detail other than this general trifold that they hand out every year. It says don't worry we'll tell you what to do. So, I think we would feel a lot more comfortable if the NRC was really involved with Westchester

County to delineate what happens in an emergency in terms of sheltering in place and evacuation. Thanks.

53:02 – 53:19 – Tanya Hood

Thank you for that. Do you want to expand any further on the comment that has been addressed? We have answered the previous question. Is there any other expansions before we go on, because I'll go back to the phone lines to see if there is anyone there that would like to ask a question at this time?

53:20 – 53:44 – Shaun Anderson

I would just say thanks for that. As I mentioned before, we can take that back and share with our state, federal and our local stakeholders especially around the Westchester County. We can definitely do that. We did have a comment, Tanya, if you wouldn't mind just repeating the instructions for those that are on the phone. There may be a couple there that may be available and not be able to see this visually.

53:45 – 54:30 – Tanya Hood

Yes, that's what I was going to do at this time. I was trying to get a few people that I've raised up to see if they were able to get back online. But for those that are on the line, if you want to participate in the meeting, you can raise your hand by pressing star five. That will let me know that you have a question or comment that you would like to ask. At that time, I will open up your microphone and you'll get the opportunity by pressing star 6 to unmute yourself. I'll wait a few moments and go back to Ms. Susan Leifer to see if you're able to find the mic. If you're on the computer, Susan Leifer, you can click the mic button. It should have a line across it. It shows that it is out that way. You can unmute yourself because you are unmuted at this time.

54:31 – 54:32 – Susan Leifer

OK,

54:32 – 54:34 – Tanya Hood

yes, you are unmuted. Yes

54:35 – 56:42 – Susan Leifer

OK. I have been listening to this conversation for multiple years and it seems that no one has ever addressed this. When my gas company sends me a notice, it says in light of, if you smell gas run, take everybody with you and run and then make a call. If you have a big community, there's no place to run. I don't understand this department. When 9/11 went down the fire department couldn't speak to the other departments and made life much worse and made many more deaths. The idea that this isn't a known configuration of how all of you react to this is so frustrating. You never even send information out. If a double accident should happen, what should we do? I don't think the people at the plant know what to do if there's a gas pipeline, it's all vague. This department does it, and that department does it. I'm sorry. To sound very irritable, but this has been a long, long time. And we have never, never got answers. I was told years ago that Pace and a few other colleges, if there was a nuclear accident, since their 12 miles, they would take people in. I went and talked to these colleges and they didn't even know

what I was talking about. Will we have a gym or some place? I said, do you have bedding, do you have food? Do you have water? No, no, we don't know what's happening. The fact that too many departments are taking care of this means that there's a lot of information that's falling between it. It's very frustrating and I do not understand how it's possible that you are going to figure it out as the accident is happening.

56:43 – 56:51 – Tanya Hood

Thank you, Ms. Leifer, for that. Give us a few moments so that we can address that question. Is there a member the staff that would like to address the question at this time.

57:00 – 57:39 – Anthony Dimitriadis

If we can, this is Tony, I thought that maybe if the young lady could ask us the question directly. Obviously, there's frustration that she expressed. I get that and I'm not sure exactly what the question is regarding is it? Is the wish to have some direction in the event of an emergency that Enbridge could provide, and how? I'm not sure if it's a question of the NRC or for Holtec or for the owners of the pipeline. I'm not sure what the.

57:40 – 1:00:47 – Tanya Hood

I would like to just make a quick statement. Overall, there's general concern about what to do in the case of an emergency. So that you are aware, Ms. Leifer, the NRC is in conjunction with the state, with the county, in how to prepare for emergency evacuations. It's not something specific that we can address just on what we do alone at this time, but there is coordination that does take place. What we can do is locate, because there's several other previous discussions that we've had related to this. So, we can coordinate, get a response to you and I can have that e-mailed to you. We do have your e-mail address because you're participating in this meeting and we can send you some information at that time because it's a coordinated discussion. They will be able to address that. We aren't able to address that in this meeting at this time to give you a complete answer. We do hear your frustration. We do acknowledge and appreciate you participating in this meeting to give us further insight about how you feel as you move forward through emergency preparedness. And at this time, I will pause for a few moments and give another instruction because we're getting close to ending the meeting, I want to ensure that we have members of the public...I want to ensure that you are able to unmute yourself. Again, to raise your hand., if you are on the phone, press star 5. At that time, I will know that you want to ask a question. I will then unmute you so that you can ask your question of the staff. I will go back to a previous member that was here to see that you're able to unmute yourself. Tina Bongar, your hand is still raised. I know you asked the question previously. I will unmute you at this time to see if there's another question. If not, we will move on to the next person. Thank you so much for being in the meeting. Susan, I mean, my apologies. Tina Bongar, you are unmuted at this time. Did you have another question you wanted to ask the staff or was your hand still raised previously? OK, hearing none. Then, let me move on to the next person that we have listed here. Marilyn Elie. I'm going to unmute you at this time. If you are able to locate your mic. let's see if you can have the conversation, at the top of your screen, if you're using your computer, you should see a little mic with a line through it. You press that line, it will unmute you. Marilyn Elie, you are unmuted at this time. You're able to ask your question of the staff. OK, Marilyn, we're having difficulty giving you the opportunity to be able to ask your question. Please type your information in the chat box. I will move on to the last person that I've seen,

Roger Witherspoon. I'm going to unmute you at this time. If you have a question you would like to ask of the staff, please ask your question at this time. You are unmuted.

1:00:48 – 1:01:27 – Roger Witherspoon

Thank you. The comment that one of your colleagues made about the relative danger of the spent fuel pool, now that the operating reactor is shut, seems to contradict the 2001 study that the NRC did on the dangers of spent fuel pools, which found that the contamination was far more extensive than any in just a working reactor. So, I am a little puzzled by that statement that the danger has been minimized, would you please elaborate?

1:01:30 – 1:01:33 – Tanya Hood

Are there NRC members at this time.

1:01:35 – 1:01:38 – Shaun Anderson

Is this the 2001 study that's in the slides.

1:01:41 – 1:01:43 – Tanya Hood

What slide would you like me to go to Shaun?

1:01:35 – 1:01:51 – Shaun Anderson

I'm trying to see if he's looking at or referencing the slides. Is he still on the phone?
2001 study.

1:01:55 – 1:01:56 – Tanya Hood

Let me bring him back up.

1:01:57 – 1:01:58 – Shaun Anderson

I think slide 14.

1:01:58 – 1:02:15 – Tanya Hood

Roger, we are trying to hear you, there is a little bit of feedback when you're. In your information, if you can make a concise statement or type in your specific question, if there's a slide that you're referencing because it is difficult to hear some of what you're asking.

1:02:16 – 1:02:40 – Roger Witherspoon

It was not a slide. It was in response to a comment by one of your staffers that the danger of radiological contamination was diminished because the plant was shut. That does not fit the findings of your departments 2001 study of the dangers from spent fuel pools.

1:02:42 – 1:03:41 – Anthony Dimitriadis

Tony, I think that's a part of that, but. I'm not sure. I recall study that you're referring to in 2001. The statement that we make about, not the dangers, but the risks associated with operating reactors versus decommissioned reactors is about overall risks and radiological releases. Large radiological releases that would necessitate emergency response and things like that about evacuations and shelter in place and sodium iodide pills and things like that. So, I do stand by that. The risks associated with contamination, About risks of spent fuel pools is a different issue. I think it is, but I don't recall. I don't know the study that you're referring to. It would help if you could, maybe, give us a specific pointer as to which one you're referring to.

1:03:43– 1:07:02 – Michael (Mike) Norris

And this is Mike Norris. I can elaborate a little bit further. Some of the regulatory analysis that was done in NUREG 1738, which was the basis for the 2000 decommissioning rulemaking, indicated that the studies could not determine a time at which a zirconium fire could not occur based on the decay of the spent fuel. So, based on that study we incorporated a 10 hour time frame. In other words, the fuel has to be cool enough, had decayed enough. You know, the period of time to decay that there is 10 hours from the time at which all cooling is lost to the spent fuel to initiation of a zirconium fire and what that 10 hours allows, it allows time for the licensee to perform mitigated measures using the mitigative strategies type of equipment, the pumps, the fire hoses, the alternate water sources. So, as part of the exemptions that have been conducted, since basically 1999, one of the criteria that the licensee has to meet is the spent fuel has to decay to such a point where if it loses all cooling, there's a minimum of 10 hours at which, for the licensee, to perform mitigation to prevent the fire and we have to understand really what has to be done to mitigate, you know that fuel from going to a zirconium, you know the heating up and it's basically just providing some type of cooling, you know, sprays extra water in the pool and that's what the mitigative strategies equipment that we require the licensees to have, by a licensed condition, and it's actually codified now in the regulations. That they have the equipment, the capabilities, the training, and the personnel to perform the mitigation of this type of event to provide some type of cooling. So, that study, the NUREG 1738, That. that's how we took that information and we added additional criteria that the licensee had to meet for us to grant the exemption and that's the process that we've used since 1999 and the later studies, the NUREG 2161, that basically just validated that successful implementation of the mitigative strategies. Was. Reduce the likelihood of that event happening.

1:07:04 – 1:08:14 – Tanya Hood

Thanks for answering that. Ms. Glidden, I just saw your comment. That question for this slide was showing the extended discussion that was previously asked. We will have a meeting summary that will come out that address this. It is difficult for us to type all the responses that are being provided inside of this meeting in the chat. We do ask that you have your information in the chat so that we can have it, if there's a specific question that you have that we can address at this time. We do have one other individual that I know that has had their hand raised. If we have Ms. Ellen I'm going to make you a presenter, and if you can unmute your mic. I know you were unable to locate the mic button previously, but I see that there's been some assistance from the staff. You're unmuted at this time. Ellen Weininger. If I'm mispronouncing your name, I do apologize, but you are able to unmute yourself at this time. If you'd like to ask your question. And for those that are on the phone, we do ask that you press star 5 so that you can raise your hand, and I will know that want to have your question ask of the staff addressed

at this time? And then we will begin to start closing the meeting. We're getting close to time. Are you able to speak?

1:08:14 – 1:10:09 – Ellen Weininger

I am here. Thank you very much for the opportunity to pose an additional question, I did make a comment in the chat that I hope that the NRC can address. That is more recent studies that were conducted at Princeton by Doctor Hippel, Frank von Hippel and Mark Schoepner, Doctor Mark Schoepner, regarding cooling pool fires. In those studies demonstrated that there is potential for quite significant radiological releases that would cover a very wide geographical area in the event of a cooling pool of fire, and indeed would release more radioactivity than a reactor meltdown that would render tens of thousands of square miles essentially uninhabitable, these studies were conducted several years ago. Something like this could occur in the event of a pipeline rupture, or for any other, you know, any number of reasons. Again, whether or not a facility has operating reactors or not the cooling pools hold vast quantities of the spent fuel and I would appreciate your addressing the studies that were conducted in at Princeton regarding this issue and actually are in direct opposition to what you just said earlier.

1:10:11 – 1:11:39 – Michael (Mike) Norris

Well, again, this is Mike Norris. Um. Again, we require the licensee as part of their exemption to maintain the equipment, the personnel, and the training to perform the mitigative actions that would be required for any event that would result in the loss of cooling of the spent fuel pool. So, that is a requirement, it's required by their license condition, it's required by regulations. So, they have the equipment, they have the people and they have the training to perform mitigation of a loss of cooling of the spent fuel pool. No matter what the cause is. So. And if and if there's anything that the licensee is not able to have, he's got letters of agreement with offsite response organizations, fire departments, etcetera, to respond to the site to provide additional resources if they need additional hoses, pumps, whatever they need. I mean that's part of the emergency plan. It's the onsite capabilities as well as the offsite response to the site.

1:11:43 – 1:12:34 – Tanya Hood

Thank you so much for answering that Mike. I do not see any other comments in the chat box and I do not see any other hands raised at this time to answer a question that has been asked. This meeting is being recorded and will be made available for the public to be able to go back and review. The NRC staff will answer the questions that we see. There's information that is already in coordination and collaboration with other government agencies or state bodies. We will have that information addressed at a later point to provide to you. At this time, if there are no other final comments, questions or thoughts. I want to direct your attention to the fact that if you have feedback for this meeting, you can send that information to me at Tanya.Hood@nrc.gov. That's TANYA.HOOD. Tony, would you like to have a question?

1:12:34 – 1:15:20 – Anthony Dimitriadis

Thank you. Tanya, just a comment. There is a comment regarding a from Ms. Marilyn Elie, my mic has been disabled by the program. We try to work through that question, please be more specific about the procedure the NRC is uses to ensure safety, especially in regard to the pipeline. I think we addressed that the NRC has done two separate studies plus the OIG's which is also part of the NRC, has the third one and now the Department of Transportation is doing their study. So, I think that addresses that. When they when that report is issued, hopefully it'll,

you know, it'll be made public obviously. How often are your inspectors on the ground? As I said, it varies. Sometimes, it's a week in a quarter. Sometimes, it's a couple of weeks in a quarter depending on what the activities that are happening onsite. As I said, if they're not, if the licensee workers are not doing physically, like risk significant activities, like cutting the internals of the reactor vessel or other things, like radwaste and things, then we may not be there onsite as often as other times. So, it does vary, but we're there typically, at least a week in a quarter. Sometimes more, typically more because there's activities that are happening. Let me see. Are you relying more on reports from paperwork? We do both. We're onsite observing activities. We interview licensee personnel. We have a conference calls and regular calls with individuals who work at the site and we also review incident reports, procedures, documents, surveys, all kinds. So, it's all of the above to answer that question. The information has not been transparent? Actually it has, we actually issue our inspection reports in the public and we issue them through listserv. We can certainly direct your attention to ADAMS. If you do a search, you can see all the inspection reports that I've signed out in the last three years for this site. How can the public be better informed about this process? Well, this is one of the forms that we use to engage with the public to make sure that we get our message out about what we do. We try to make it very poignant, depending on what the issue is. In this webinar, that Shaun and Tanya are hosting, we try to focus on security and EP. Next week, we have the Decommissioning Oversight Board which we will be doing some focused discussion on ISFSI, being spent fuel. So, that's one way. Also, you can go to our website. There's a wealth of information there, Shaun.

1:15:22 – 1:16:29 – Shaun Anderson

Thanks, Tony, and thanks for your participation here. A lot of questions on the inspection side of the house. Thanks for the NSIR staff, in terms of the security and EP. I thank Tanya for hosting and everyone else that I might have missed here. There is the listserv link that I just put in the chat (<https://www.nrc.gov/public-involve/listserver.html>. Subscribe to get E-mail Updates). It's just the opportunity for anyone to sign up in terms of getting on the listserv for a lot of communications that Tony mentioned related to the plan specific activities. We'll definitely, as Tanya mentioned, we want your feedback in terms of how you all like this session itself. We do plan on considering additional information sessions on different topics and definitely a lot of questions about the pipeline and we will take that information back and share it with our state and federal colleagues in terms of the questions and concerns that were raised here and for everyone to remember. Sorry, we do have the December 7th New York State Decommissioning Oversight Board. Just because there's a lot of questions related to Indian Point. We will be participating in that meeting, as Tony said. So, other than that, just thanks for your participation.

1:16:30 – 1:17:16 – Tanya Hood

So, thank you for that. And with that, for the members of the public, as I've stated previously, there will be a meeting summary developed from this that can give you the information and a link that will be provided that gives you the recording for this information. We will do what we can to capture all of the comments and questions that have been asked on this meeting. And if you have some feedback for something specific, you can as a state previously sending information to myself, Tanya.Hood@nrc.gov. We have done a great job, gentlemen. I appreciated a recapping. I did not have to do a quick recap of all of what has been done. I truly appreciate that. And with that if there are no other final comments, questions or thoughts. We can close the meeting. You know, one moment.

1:17:17 – 1:17:18 – Shaun Anderson

Thank you.

1:17:20 – 1:18:02 – Tanya Hood

I see Tina Bongar, a question about FEMA. I think we've addressed that question previously as well. There's a lot of information that is available on the NRC's public website. We do our best to ensure that we inform the public of a lot of things. So, some of the questions that you're asking is already available and addressed on our website, like information about FEMA. let me go back. Could the NRC share with the public how FEMA is involved with their emergency planning process. We have about 2 minutes. We do have and consistently coordinate with FEMA. So, if someone would like to answer that question really quick and then we can close out this meeting session.

1:18:03 – 1:19:02 – Michael (Mike) Norris

Yeah. This is Mike Norris. Um. For an operating plant, the NRC works hand in hand with FEMA. Again, the NRC has the authority on-site. FEMA has the oversight, if you will, for the offsites. As part of the decommissioning, as part of the actual exemption process, we do consult with FEMA, we do get their comments on our Commission papers that we write, however, it's the NRC's authority, whether we grant the exemptions or not. Once the exemptions are granted, once the licensees met the criteria to implement the exemption, then we provide written notification to FEMA that there's no longer off-site radiological emergency preparedness required, and FEMA will let the appropriate governmental agencies. Know that.

1:19:06 – 1:19:22 – Tanya Hood

Thank you so much for answering that Mike. And with that, we thank you so much for participating in today's public meeting for Emergency Preparedness and Decommissioning Security. We thank you for your time and wish you all a great day. Have a great day, everyone. Take care.

Summary of November 30 2022 Public Meeting to Discuss Emergency Preparedness and
Decommissioning Security DATE December 23, 2022

DISTRIBUTION:

RidsNmssDuwpRdb, NMSS
RidsNsirDprResource, NSIR
RidsOpaMailResource, OPA
RidsRgn1MailCenterResource, RGN I
WGardner, NRR/DNRL/NCSG
JWeil, NMSS/DFM
ADeJesus, OEDO
HRodriguez-Luccioni, OEDO
JKeene, NSIR/DSO/SOSB
ADimitriadis, R-I/DNMS/DIRHB

ADAMS Accession No.: ML22350A717

OFFICE	NMSS/DUWP/RDB	NSIR/DPR/RLB	NSIR/DPCP/MSB	NMSS/DUWP/RDB
NAME	THood TH	JQuichocho JQ	ARivera AR	SAnderson SA
DATE	Dec 19, 2022	Dec 20, 2022	Dec 21, 2022	Dec 22, 2022
OFFICE	NMSS/DUWP/RDB			
NAME	THood TH			
DATE	Dec 23, 2022			

OFFICIAL RECORD COPY