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**NUCLEAR REGULATORY COMMISSION**

Title: Public Meeting on Nuclear Ship Savannah  
License Termination Plan

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING ON NUCLEAR SHIP SAVANNAH LICENSE

TERMINATION PLAN

+ + + + +

WEDNESDAY,

MAY 8, 2024

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The meeting was convened 5:59 p.m. EDT,  
Lynn Ronewicz, Facilitator, presiding.

PRESENT:

TANYA HOOD, Licencing Project Manager

ERHARD KOEHLER, Senior Technical Advisor,

N.S. SAVANNAH

JANE MARSHALL, Director, Division of  
Decommissioning, Uranium Recovery, and  
Waste Program

LYNN RONEWICZ, Facilitator

LINDA GERSEY

NATE FUGUET

DIANA DIAZ TORO

JEAN TREFETHEN

EMIL TABAKOV

LOUIS CAPONI

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1           SHAUN ANDERSON  
2           ANDREW TAVERNA  
3           NADIYAH MORGAN  
4           JEN WHITMAN  
5           STEVE WYMAN  
6           NIKKI WARNEK  
7           JANE MARSHALL  
8           NEIL SHEEHAN  
9           ANTHONY DIMITRIADIS

10

11       ALSO PRESENT:

12           JUSTIN LONG  
13           ROB JACKSON  
14           JOHN HICKMAN  
15           ANNE JENNINGS  
16           LEE DUBOIS  
17           LORI GLANDER  
18           DAVID MINGES  
19           JACK FLETCHER  
20           ZEDRA TAYLOR  
21           LINA PLANUTYTE  
22           JOHN DAMM  
23           RUTH CHES  
24           JOHN WIEGAND  
25           ROBERT SHERANKO

1 LISA MILES  
2 RICHARD SCHIAPPACASSE  
3 WENDY COBLE  
4 ANTHONY MARGAN  
5 ANNA HOLLOWAY  
6 JOHN KELLY  
7 CORNELIA MUELLER  
8 NADIA GLUCKSBERG  
9 MICHAEL HAMBY  
10 GAIL MARRCUS  
11 CYNTHIA BEAROR  
12 WILLIAM MCCREADY  
13 MICHAEL TINKEL  
14 RONALD THURLOW  
15 MATTHEW ARSENAULT  
16 PAUL JOHNSTON  
17 SCOTT GINTER  
18 LARRY BOING  
19 KEN EGBUNA  
20 WILLIAM FOWLER  
21 HILTRUD KOEHLER  
22  
23  
24  
25

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

5:59 p.m.

MS. HOOD: All right and welcome. My name is Tanya Hood. I'm the licensing project manager for the Decommissioning of Nuclear Ship Savannah. This is a meeting that is being held between the United States Nuclear Regulatory Commission and the United States Maritime Administration. This is also to look at their license Termination Plan, to have a discussion related to that document. You will get more insight as we go along about where to locate that information.

This meeting is a common gathering meeting for the public. It is scheduled to be held between 6:00 p.m. and 7:30 p.m.. We have members of the public to get the opportunity to have your voices concerned with the NRC at this meeting. This gives us the opportunity to hear what your concerns are, give you a chance to make sure that we understand what you are asking, and give you the chance to have your comments asked at this time.

This is also, so that you're aware, some acronyms. We do our best to stay away from acronyms, but there are a few that you will hear. The Nuclear Regulatory Commission will be referenced as the NRC. The Maritime Administration will sometimes be

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1 referenced as MARAD. We will also hear the License  
2 Termination Plan sometimes referenced as the LTP. So  
3 those are a few acronyms that you will consistently  
4 hear along the way.

5 At this time, I ask those that are members  
6 of the public that are in the room, I ask you to sign  
7 in because the sign-in sheet gives us an opportunity  
8 to make certain that we're accountable in the event of  
9 an emergency. If there is an emergency -- there's  
10 people logging on and off to the online meeting --  
11 this is a hybrid meeting that is being transcribed.

12 With this I wanted to also share that for  
13 those that are in person, if there is an emergency, we  
14 would like for you to make certain that you follow the  
15 instructions that are given. And I'm going to ask  
16 Erhard Koehler, the senior technical advisor for the  
17 NS Savannah to come and give you that information and  
18 to let you know where the restrooms are as well.

19 Mr. Erhard?

20 MR. KOEHLER: All right, thank you, Tanya.

21 Welcome, everybody, to the Nuclear Ship  
22 Savannah. It's our great pleasure to host you on  
23 board for this License Termination Plan meeting. This  
24 space was equipped for this purpose. The design  
25 originated with Al Adams from NRR at NRC, the new

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1 office of Nuclear Reactor Regulation back 20-some-  
2 years ago. So it's been a long time coming and we're  
3 happy to be here.

4           Everybody's who's on the ship tonight,  
5 virtually everybody that's on the ship tonight is in  
6 this room. If there should be an emergency during the  
7 meeting, we have Nick Walsh and Caleb Soon from our  
8 staff who will go and investigate the emergency. It  
9 will likely be an alarm sounding. They will act as  
10 the first responders to go and investigate the  
11 condition. We will shelter in place in this room  
12 until I am notified by radio as to what the position  
13 of the problem may be.

14           In the event of an actual emergency, for  
15 example, a fire, then we would evacuate the ship,  
16 basically either the way that we came on board, or if  
17 the path were blocked we would go outside and we would  
18 use of the exterior egress ladders. So there's no  
19 work going on elsewhere; the chances of something  
20 happening should be fairly remote, but again, if that  
21 should occur, simply stay in here. I will give you  
22 direction and then we'll get you out safely.

23           As far as the restrooms are concerned, if  
24 at some point during the meeting you need to leave and  
25 go to the restroom, you're going to exit the room in

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1 the back and simply go straight out through the glass  
2 door on the lefthand side of the window wall in the  
3 veranda. You'll take a ladder down on the lefthand  
4 side of the ship and the restrooms will be right  
5 there. So if you need assistance getting there,  
6 several members of the staff can assist you getting  
7 there. All right, thank you.

8 MS. HOOD: Thank you so much for that.  
9 So I want to be mindful that we do have a connection  
10 issue for those that are online. We will connect back  
11 with the online portion of the meeting when we get  
12 there. But at this moment I would like to have Jane  
13 Marshall, our Division Director, come and give you  
14 opening remarks. Jane?

15 MS. MARSHALL: Thanks, Tanya. As Tanya  
16 mentioned, I'm Jane Marshall. I'm the director for  
17 the Division of Decommissioning, Uranium Recovery and  
18 Waste Programs at the US Nuclear Regulatory  
19 Commission.

20 The NS Savannah or Nuclear Ship Savannah,  
21 is the world's first nuclear-powered merchant ship.  
22 When it was launched in 1959 as a demonstration ship  
23 and a signature element of President Eisenhower's Atoms  
24 for Peace program, the Nuclear Regulatory Commission's  
25 predecessor, the Atomic Energy Commission, was there

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1 to oversee that.

2 I now have the pleasure of overseeing the  
3 public's opportunity to participate in the  
4 decommissioning process. The purpose of today's  
5 meeting is to describe the NRC's License Termination  
6 process, the License Termination Plan for the  
7 Savannah, and to accept public comments. The License  
8 Termination Plan was submitted as a supplement to the  
9 updated Final Safety Analysis Report and is required  
10 to demonstrate compliance with NRC Decommissioning and  
11 License Termination requirements.

12 This meeting is provided prior to NRC's  
13 approval or denial of the licensed amendment. If the  
14 License Termination Plan passes the approval process,  
15 the NRC will approve it by a license amendment and  
16 then MARAD would finish implementation. After that,  
17 NRC will move on to License Termination. During this  
18 meeting NRC staff will provide insight about the  
19 decommissioning process and regulatory oversight and  
20 inspection program. The licensee, MARAD, will provide  
21 an overview of their progress and insight about their  
22 endstate considerations.

23 After that we invite you to share your  
24 comments and ask questions of the NRC staff. We hope  
25 everyone has an opportunity to ask any questions you

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1 had and to provide comments. This meeting is  
2 scheduled to conclude by 7:30 this evening. We  
3 appreciate you taking your time today to meet with us  
4 and discuss the License Termination Plan for the NS  
5 Savannah.

6 I've also been informed that this is our  
7 first meeting aboard ship for the Nuclear Regulatory  
8 Commission. So thanks for joining us for that first  
9 for the NRC. With that, I'll turn it back over to  
10 Tanya Hood.

11 MS. HOOD: Thank you, Jane. So we would  
12 like to have the rest of the introductions take place  
13 at this time. We will start in-person with the NRC  
14 staff simply stating your name and your title. Then  
15 we will have the MARAD team introduce themselves with  
16 name and title. From there I will turn the meeting  
17 over to Lynn Ronewicz. She is our facilitator online.

18 She will ask the members of the NRC to  
19 begin with their name and title, and then the members  
20 of MARAD to say their name and title. At the end of  
21 that Lynn will give us some logistics associated with  
22 this meeting and then we will begin the presentation.

23 So I will start in-person by asking Nikki  
24 Warnek, our current branch chief for the  
25 decommissioning branch.

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1 MS. WARNEK: Hi, my name is Nikki Warnek  
2 and I'm the acting chief of Reactor Decommissioning  
3 branch.

4 MR. DIMITRIADIS: Hi, good afternoon, I'm  
5 Anthony Dimitriadis. I'm the branch chief responsible  
6 for decommissioning 6:08 reactor HB in Region 1.

7 MR. CAPONI: Hi, my name's Louis Caponi,  
8 I'm a risk analyst.

9 MR. WYMAN: Steve Wyman, I'm the branch  
10 chief for the source manager protection branch.

11 MR. SHEEHAN: I'm Neil Sheehan, public  
12 affairs office of the -- Region One Office

13 PARTICIPANT: -- Office of Professional  
14 Affairs for the Nuclear Regulatory Commission over in  
15 headquarters down in Rockville.

16 MS. TORO: Hi, I'm Diana Diaz Toro. I'm  
17 an environmental project manager in headquarters.  
18 Thank you.

19 MR. TABAKOV: Hi, I'm Emil Tabakov. I'm  
20 financial analyst at NRC.

21 MR. PERRY: Hello, I'm Jack Perry, I'm a  
22 senior project manager at the Reactor Decommissioning  
23 Branch, but for this project I'm the backup VM to  
24 Tanya.

25 MS. HOOD: Thank you. Erhard, you can

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1 begin with MARAD.

2 MR. KOEHLER: Good evening. My name is  
3 Erhard Koehler, I'm the senior technical advisor for  
4 the Maritime Administration Act as the licensee. We  
5 have a combination of direct employees and contractor  
6 staff here. I'm going to begin with Jay and the rest  
7 of the front row.

8 MR. TARZEY: Yes, hi, I'm Jay Tarzey. I'm  
9 the chairman of the Nuclear Ship Savannah Joint  
10 Venture. That's the company that's doing the  
11 decommissioning for the ship, contracted by MARAD.

12 MR. EGBUNA: My name is Ken Egbuna. I'm  
13 the assembly for MARAD ship construction and ship  
14 disposal.

15 MR. MOORE: I'm Chris Moore. I'm the  
16 senior advisor for strategics.

17 MR. DEROYCE: I'm Eric DeRoyce. I'm the  
18 License Termination Plan manager for the contractor  
19 that's supplying the services to MARAD.

20 MR. OSBORNE: My name is John Osborne.  
21 I'm the licensing compliance manager and a contractor  
22 to Jay Tarzey.

23 PARTICIPANT: -- Certified Health  
24 Physicist with RSCS and packing support for  
25 decommissioning needs.

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1 MR. MACKLEROY: I'm Mark Mackleroy, I'm  
2 the head of safety here on the nuclear --

3 MR. MARGAN: I'm Tony Margan, and I'm a  
4 field inspector. I'm a contractor working for the  
5 Maritime Administration.

6 MR. KOEHLER: Nick?

7 MR. WALSH: Yep, I'm Nick Walsh, I'm a  
8 nuclear advisor with the RSCS.

9 MR. KOEHLER: Don?

10 MR. MCGEE: I'm Don McGee, I provide  
11 independent oversight for MARAD.

12 MR. KOEHLER: And Caleb.

13 MR. SOON: Caleb Soon with MARAD,  
14 Decommissioning Fireman.

15 MS. HOOD: Thank you. And now, Lynn, I'll  
16 turn it over to you for the online introduction.

17 MS. RONEWICZ: Okay, first of all, do we  
18 have any government officials online, and if so,  
19 please go ahead and state your name and title.

20 MR. TAVERNA: Hello, my name is Andrew  
21 Taverna. I'm a decommissioning inspector for the  
22 Region 1 Office. You can see Tony Dimitriadis is on,  
23 and it all comes from, he's my boss. I've been with  
24 the NRC for approximately three years. Thank you.

25 MS. RONEWICZ: Any other NRC employees

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1 online who would like to introduce themselves? Okay,  
2 any MARAD and persons who are online and would like to  
3 introduce themselves?

4 MS. HOLLOWAY: Hi, this is Anna Holloway,  
5 Supervisor and Historian with MARAD.

6 MS. RONEWICZ: Thank you. Are there any  
7 others?

8 MS. MILES: Hi, this is Lisa Miles, I'm a  
9 contract specialist for the Savannah project.

10 MS. COLBY: I'm Linda Colby acting for the  
11 preservation officer that Anna will now be taking over  
12 for at MARAD.

13 MR. JOHNSTON: I'm Paul Johnston. I serve  
14 on the decommissioning panel and I'm Curator of  
15 Maritime History at the Smithsonian.

16 MR. ARSENAULT: Hi, I'm Matt Arsenault,  
17 Decommissioning Project Manager for RSCS.

18 MR. THURLOW: Ronald Thurlow with Nuclear  
19 Ship Support Services contracted at MARAD.

20 MR. WEIGAND: I'm John Weigand, Former  
21 Decommissioner and Program Manager working for Erhard,  
22 and currently supporting him as a contracting advising  
23 engineer.

24 MS. JENNINGS: Hi, I'm Anne Jennings, I'm  
25 working with MARAD as a contractor to support them on

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1 the National Historic Preservation Act Compliance for  
2 the ship.

3 MS. RONEWICZ: Okay, are there any others  
4 online?

5 MR. DUDEK: Yes, my name is Michael Dudek.  
6 I'm a licensing project manager for X Energy.

7 MR. MCCREADY: Yes, this is Robbie  
8 McCready. I'm working with MARAD for field  
9 inspections. I'm online as well.

10 MS. RONEWICZ: Thank you. Anybody else?  
11 Okay, we'll look forward then. So good evening,  
12 everyone. Welcome to this hybrid meeting and thank  
13 you for attending.

14 My name is Lynn Ronewicz, and I will be  
15 assisting with meeting facilitation. I would like to  
16 reiterate that this meeting is being transcribed.  
17 Please keep yourself muted unless you have been called  
18 on to speak or have a speaking role. And please do  
19 not turn your camera on unless you are speaking and  
20 then remember to turn your camera off. This will save  
21 bandwidth and allow the focus of the meeting to be on  
22 the individual who is presenting or speaking.

23 This meeting is also being conducted  
24 through the use of Microsoft Teams. Should you have  
25 trouble with the Teams application I recommend that

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1 you first use the Microsoft Teams link provided in the  
2 meeting notice, as opposed to the Microsoft Teams app,  
3 disconnect and try to reconnect to this Teams meeting,  
4 or use the teleconference number that has also been  
5 provided in the meeting notice to listen to this  
6 meeting.

7           When we get to the Question and Answer  
8 portion of the meeting, we will start with any  
9 questions and comments from people joining us in  
10 person, and then we'll go to the virtual attendees.  
11 If you're on the phone you will be pressing star-five  
12 on your phone to raise your hand, and then star-six to  
13 unmute your virtual connection.

14           A court reporter is transcribing this  
15 meeting, or else we are transcribing it. All  
16 questions/comments are to be made verbally for the  
17 court reporter to transcribe if they are attending,  
18 unless the Teams chat has been disabled. I will  
19 repeat these instructions when we get to the Q&A  
20 period.

21           And now I'll just turn this back over to  
22 Tanya Hood.

23           MS. HOOD: Thank you, Lynn, I appreciate  
24 that. The meeting agenda will follow as it has been  
25 presented in the public. We will begin with a

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1 presentation for decommissioning, processing and  
2 experience, then we will move on to an inspector  
3 presentation for the decommissioning reactor  
4 inspector, Andrew Taverna.

5 And I'll turn the meeting over to Erhard  
6 Koehler for the licensee's presentation, and then  
7 we'll come back and wrap that up with a presentation  
8 from the NRC giving insights to the public about how  
9 you can participate with the public comment process  
10 and information related to the LTP review.  
11 Afterwards, we will go back into a virtual space where  
12 Lynn Ronewicz will support the public comment  
13 discussions with questions and comments at that time,  
14 and we'll close out with closing remarks from Jane  
15 Marshall, and then the meeting will be done. So thank  
16 you so much for your patience with all of the  
17 introductions and the beginning logistics associated  
18 with this meeting.

19 Our mission is closely tied to enhancing  
20 the decommissioning process. The NRC oversees each  
21 stage of the decommissioning radiological cleanup, and  
22 may conduct final surveys to verify the site meets the  
23 criteria that we have for our agency. Once the NRC  
24 terminates the license, the bulk of the site is then  
25 available to be repurposed as identified by the

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1 licensee in accordance with state and local approvals.  
2 We will have the NRC continue to provide oversight for  
3 the decommissioning activities through that entire  
4 process.

5 Next slide. This slide shows a graph of  
6 how much the NRC has already gone through  
7 decommissioning. We have got over 20 years of  
8 experience decommissioning over 80 particular sites  
9 related to the material sites, research test reactors  
10 and power reactors. Even though the Nuclear Ship  
11 Savannah is a ship, it is still a part of the process  
12 of what we have as an agency continue to do.

13 The United States Nuclear Regulatory  
14 Commission is the only one worldwide combined that has  
15 the most decommissioning experience. And we will take  
16 that experience and continue to move through the  
17 process through our technical review. Next slide.

18 The notification is the beginning of the  
19 reactor decommissioning process. The initial  
20 notification for permanent cessation in operations and  
21 permanent removal of the fuel from the reactor is  
22 required to begin this process. NS Savannah provided  
23 us that information initially in 1971 of their intent  
24 to decommission. The fuel was removed from the  
25 reactor in 1971, and a possession-only license was

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1 issued in 1976.

2 The submittal of their Post-Shutdown  
3 Decommissioning Activities Report, which is often  
4 listed as a Decommissioning Report, was initially  
5 submitted to the agency, December of 2006. That was  
6 withdrawn and the current submittal that we have for  
7 their licensing basis was updated and provided to us  
8 December of 2008. That began a public meeting to have  
9 the public have comments and questions associated with  
10 what they call the PSDAR, the Post-Shutdown  
11 Decommissioning Activities Report, and that public  
12 meeting is similar to what we're having here today.

13 We are now at a space where the License  
14 Termination Plan, which was submitted to the agency  
15 October 23 of 2023. The staff is still in the midst  
16 of that technical review. I will give you more  
17 insight as we go through this presentation about how  
18 to access that License Termination Plan and how you  
19 can provide your public comments associated with it.

20 Next slide. Each nuclear power reactor  
21 licensee is required to submit the License Termination  
22 Plan prior or along with an application to terminate  
23 their license, at least two years prior to  
24 termination. It includes these areas: the site  
25 characterization, which is used to understand the

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1 environmental and radiological conditions of the NS  
2 Savannah, and to prepare for the cleanup associated  
3 with it.

4 Identification and planning remaining  
5 dismantling activities that is associated with the  
6 decontamination and dismantling of the items  
7 associated with the plant to get it to its final  
8 configuration; the plans for the site remediation,  
9 this describes how the NS Savannah intends to  
10 remediate any residual radioactive activity so that  
11 the property may be released under unrestricted  
12 conditions.

13 And then a detailed plan associated with  
14 the final radiation survey. This demonstrates to the  
15 NRC that their radioactive materials do not exceed the  
16 NRC criteria for termination of the license. Then  
17 there's the updated site-specific decommissioning cost  
18 estimates that is provided to us so that we can assure  
19 that there is enough funding to adequately release the  
20 site for decommissioning without any concerns. Then  
21 there's the supplements to the environmental report.  
22 This includes an evaluation of the site-specific  
23 environmental impacts of decommissioning activities  
24 that's associated with the decommissioning for the  
25 site and what is expecting around this area. This is

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1 to association any changes from the original submittal  
2 so that we can see what is occurring in real time and  
3 support us along the way for our review. The staff  
4 has looked at these items as well, and we continue to  
5 look at as we go through our review.

6 The NS Savannah is planning to conduct a  
7 safe dismantling and decommissioning, indicating that  
8 their radiological criteria for a dosage that they are  
9 working towards is 15 millirem per year, so that they  
10 can properly release the ship for unrestricted  
11 conditions and license termination. Under the NRC's  
12 decommissioning regulations, a site is considered  
13 acceptable with a 25 millirem per year criteria. This  
14 includes all exposure pathways, as well as ensuring  
15 that any residual activity has been reduced to levels  
16 as low as necessarily achievable.

17 For comparison, for those individuals that  
18 typically go to the doctor. A lot of what we receive  
19 from the average American is about 620 millirem per  
20 year. Half of that comes from your medical elements  
21 that you're dealing with. To give a closer number to  
22 what we're working towards, if you're an individual  
23 that lives in an older brick home, we have about 100  
24 millirem per year coming from the background radiation  
25 associated with it.

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1                   So the goal that MARAD has associated with  
2                   their dose criteria meets what the NRC is asking for,  
3                   when you see what is typically given on a regular  
4                   basis to the average American. Next slide.

5                   The Nuclear Ship Savannah is a unique  
6                   facility. It is the only floating power plant. NRC's  
7                   criteria for release is established with the dosage  
8                   that I just finished sharing with you, but we do not  
9                   prescribe any site-specific end use for that ship.  
10                  That is up to the licensee to make a determination  
11                  about what they would like to do. But once the NRC  
12                  has completed its review and terminates the license,  
13                  then the licensee is free to release the ship without  
14                  restrictions. Next slide.

15                  And now that concludes my particular  
16                  portion. I will turn it over online to the Reactor  
17                  Decommissioning Inspector, Andrew Taverna. Andrew?

18                  MR. TAVERNA: Thank you, Tanya. So for my  
19                  portion of the presentation, I will be giving a  
20                  general overview of how we can conduct inspections as  
21                  released to decommissioning. Next slide, please.

22                  So for the decommissioning inspection  
23                  program, it is based on the licensee meeting NRC  
24                  regulations, license-based documents and guidance  
25                  documents, such as MARAD's, as appropriate. The

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1 program office MSS will perform licensing reviews and  
2 safety evaluations of those license amendments.  
3 Regional inspectors like myself, we perform  
4 documentation reviews and onsite inspections to ensure  
5 that the site is following regulations and following  
6 license requirements. We document the inspection and  
7 then special report along with any violations that  
8 might be found.

9 Enforcement actions, if any, will be taken  
10 for violations in accordance with NRC enforcement  
11 policy. Next slide, please.

12 So we inspect using inspection -- Chapter  
13 2545, Research and Test Reaction Special Program.  
14 When the site enters into the program, we perform  
15 oversight and verification of decommissioning project  
16 at the site. Then the decommissioning special program  
17 ends when the license is terminated at the site. Next  
18 slide, please.

19 The objective of the inspection program is  
20 to obtain information through direct observations to  
21 document, and documentation reviews, and verification  
22 of licensee activities. And that is just to determine  
23 whether the site is being decommissioned safely and  
24 that site operations and license termination  
25 activities are in conformance with applicable

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1 regulatory requirements. And not just regulatory  
2 requirements, but site licensing basis, licensee  
3 commitments and --

4 Next slide, please. So our inspection is  
5 very, I would say, very intrusive. Decommissioning  
6 work that we inspect uses a variety of activities and  
7 a review of licensee programs. We assess them by  
8 looking at various activities, such as site status,  
9 modifications, maintenance, surveillance,  
10 transportation and radiation protection. The amounts  
11 and complexity of decommissioning work, as it  
12 increases so does the number of our inspections. So  
13 if there's a significant safety risk, significant  
14 safety activities at a site, we really want to focus  
15 our attention on those as well. If there's nothing  
16 really going on at the site, we reduce our onsite  
17 observations.

18 Next slide, please. Special planning and  
19 effort, so we kind of try to develop a sort of master  
20 inspection plan in advance. We start with activities  
21 that the NRC may undertake and we try and coordinate  
22 that with the program office. One caveat I see with  
23 decommissioning, unlike operating the reactors,  
24 decommissioning schedule can slide. So as the  
25 inspectors are trying to be flexible, we have a team

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1 of inspectors so if I can't be at a certain activity  
2 that I want to observe, I try to coordinate with  
3 another inspector to have them go and see that  
4 particular activity.

5 Again, I coordinate that with the program  
6 office and then we're in communication with the site.  
7 We have monthly calls with the site to understand  
8 what's going on at the site. The inspection effort  
9 includes reviewing licensee correspondence. We ask  
10 for documents related to site activities that we're  
11 going to see. We look at previous inspections, we  
12 look at previous inspection reports, and also include  
13 talking to other inspectors that have been at the site  
14 previously. Once we finish our planning and we  
15 perform the inspection and we identify any findings or  
16 violations. We communicate that to the licensee  
17 during an exit meeting. Again, like I said before,  
18 violations are handled in the course with NRC  
19 enforcement policy.

20 Next slide, please. This is my last  
21 slide. So after an inspection is completed, we get  
22 with NRC management and we go over what we did for the  
23 inspection and we debrief them if we have any  
24 violations or issues of concern. We issue an  
25 inspection report within 30 to 45 days after the

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1 inspection is complete. When we exit, that's when the  
2 clock starts. 30 days are for solo inspections, 45  
3 days are for team inspections.

4 As you can see on the slide here, you can  
5 go to that link and search the docket number provided  
6 there to look at previous documents associated with  
7 the NS Savannah. That concludes my portion of the  
8 presentation. Ill turn it over to Erhard Koehler.  
9 Thank you.

10 MS. HOOD: Thank you. Erhard.

11 MR. KOEHLER: Okay, somebody start the  
12 timer. I've been told I have 15 minutes, maybe 20 if  
13 I'm lucky, and that would be a world record for me.  
14 I have a number of slides that are historical in  
15 nature. We're going to kind of gloss over them a  
16 little bit. The presentation is available on the  
17 MARAD website. It would be available on the NRC  
18 website. There are copies for people here in the  
19 room. And so for those of you online you should be  
20 able to download it.

21 Let's get to the next slide, please. This  
22 presentation is not intended to duplicate material  
23 that has previously been docketed. So you can see  
24 that we have had a number of other meetings beginning  
25 with that PSDAR back in 2009. We've had a number of

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1 pre-submittal meetings with NRC where the presentation  
2 materials are docketed. We have a couple of follow-  
3 ups that I'm not certain whether they're on the  
4 docket, but if somebody asks I'm sure we could provide  
5 them. So these are good references if you search  
6 Atoms and look for those to get a sense of where  
7 decommissioning progressed from 2009 to present.

8 Next. I'm going to talk a little bit  
9 about the facility history and milestones, an overview  
10 of our decommissioning process and the progress, and  
11 in particular, as this is a national historic  
12 landmark, the implications of historic preservation,  
13 consultation and compliance with the National Historic  
14 Preservation Act and state considerations,  
15 understanding that MARAD has several possible end  
16 states for the ship, but a preferred outcome of  
17 preservation. And then in that how we demonstrate  
18 compliance with the license termination radiological  
19 criteria.

20 Next please. The mentioned ship is a  
21 national historic landmark. It possesses tremendous  
22 significance. It is the signature remnant of the  
23 Atoms for Peace program, and I would be remiss if I  
24 didn't remark that so much of what NRC does, so much  
25 of what the United States does in the peaceful uses of

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1 nuclear technology, that the world uses nuclear  
2 technology peacefully stem from President Eisenhower's  
3 1953 Atoms for Peace speech. And we are sitting in  
4 the Eisenhower Room, named in his honor in 2009 for  
5 that groundbreaking work that he did and as the  
6 inspiration for this ship.

7 Savannah is a relic. It dates back, it  
8 was proposed in 1955, it was authorized by an act of  
9 congress in 1956, it was constructed through the  
10 latter part of the 1950s and went into service in  
11 1962.

12 Next. In context, it is a first  
13 generation site. So you can see on this slide a  
14 number of other first generation facilities. The  
15 Manhattan Project Facility that began it all, U.S.S.  
16 Nautilus, just a handful of years before Savannah, was  
17 the first nuclear power ship to demonstrate that this  
18 technology could be used to make a ship move. The  
19 shipping port nuclear generating station in  
20 Pennsylvania in 1957, the radioactive wand used to  
21 trigger the construction of shipping port was the same  
22 one used to trigger the construction of Savannah the  
23 following year and other first generation sites.

24 This is really the last one left other  
25 than Ledden, which is preserved as a museum in

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1 Murmansk, a hotbed of tourism in Murmansk, Russia.  
2 The U.S.S. Enterprise will be decommissioned by the  
3 Navy in next decade or so. Of course, Nautilus is  
4 preserved up in Groton, Connecticut. Next.

5 Savannah was an extremely successful  
6 program. Do not let the myths and legends of the  
7 internet confuse you or take you down any other road.  
8 Savannah had specific things it was intended to  
9 explore. It explored them all and answered most of  
10 them. The fact that there were not second and third  
11 generation nuclear ships following Savannah had more  
12 to do with politics and finances than anything about  
13 the Savannah program in and of itself. So it was an  
14 extremely successful government RND program that was  
15 ended in 1970 because the federal government had had  
16 far greater needs for the money that was being  
17 expended, Apollo, Vietnam, Great Society, among them.

18 Next. The reactor operating history and  
19 the licensing history presented here up to the  
20 possession-only license in 1976 - one thing I will say  
21 is that you can see the defueling completion date in  
22 December 1971, was retroactively declared to be the  
23 permanent cessation of operations. In 1971 there was  
24 no such thing as permanent cessation of operations.  
25 In 1971 there were not decommissioning rules. There

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1 were no regulations, there was no guidance. That  
2 didn't happen until 1974. And so we actually declared  
3 that date in PSDAR to be the defacto permanent  
4 cessation of operations, which established that 60-  
5 year time frame that Tanya spoke about in her  
6 presentation. And we have, of course, combined use of  
7 safe store and Decon to get to this state.

8 Post-operation, Savannah was a museum. It  
9 was intended to be a museum in Savannah, Georgia.  
10 That did not work out. It was a museum in South  
11 Carolina for 13 years. I repossessed it in 1994, and  
12 I've been with it ever since. But we anticipated that  
13 the ship would go into a much longer extended period  
14 of safe store in 1994, that it would go into our  
15 reserve fleet in Virginia, and we would basically all  
16 retire before anybody did anything with it again.  
17 That didn't work because 9/11 happened.

18 Although 9/11 did not have a direct nexus  
19 to NS Savannah, the federal government in the wake of  
20 9/11 looked at all sorts of different vulnerabilities  
21 and had to address those vulnerabilities, and one of  
22 them was this floating, old nuclear power plant in the  
23 middle of the James River in Virginia, and so  
24 Administrator Schubert in February 2002, which was 22  
25 years ago, decided to decommission. We are finally

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1 here. Next.

2 MARAD is the federal government's agent to  
3 dispose of non-military ships, noncombatant ships,  
4 both the ships that we own and ships from other  
5 agencies. We have principal ways that we can dispose  
6 of those ships, primarily ship-raking or recycling,  
7 scrapping, as it's known. Sometimes we can sink a  
8 ship as an artificial reef, and in rare cases, ships  
9 can be preserved. The Maritime Administration has in  
10 fact donated a number of vessels over the years that  
11 are museum ships today, including the John Brown,  
12 which is laying here at Pier 13 near Savannah; that  
13 was many years ago.

14 MARAD has these three possible end states  
15 for Savannah, okay? And LTP considers each of these  
16 potential end states. However, from the earliest days  
17 of the project, virtually from that meeting in  
18 February 2002, when the administrator decided to  
19 decommission, the next question was what are we going  
20 to do with the ship?

21 And this was kind of a heady time for  
22 historic preservation. We had the Preserve America  
23 executive order in 2003, and a number of other  
24 initiatives that had come out in the Clinton  
25 Administration before. So historic preservation was

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1 given great prominence. So a very early decision made  
2 by MARAD was that we would seek the preservation of  
3 the ship. It did not unduly influence decommissioning  
4 because what we ultimately found was that those two  
5 things complemented each other very well.

6 Next. As a federally owned landmark, the  
7 highest standards of care under preservation law  
8 apply. And so we are charged as part of this process  
9 to minimize harm to the landmark. Now decommissioning  
10 the dismantlement of the nuclear power plant and its  
11 disposal in a low level waste repository would seem  
12 the antithesis to minimizing harm. And so finding a  
13 middle ground, finding an approach that combined those  
14 two was the principal challenge for the project.

15 Next. We established these principals in  
16 2005 and these have guided the project to the present  
17 day, all right? Wherever possible, decommissioning  
18 will be undertaken in a manner that fosters future  
19 preservation, that we will not create additional big  
20 holes in the ship to get stuff out, that if there's an  
21 option to be considered, we'll take the option that  
22 promotes preservation, and if there are opportunities  
23 to improve the ship during decommission , we will use  
24 those.

25 All of the infrastructure modifications,

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1 and I'll talk about that, we've made to the ship over  
2 the years, are intended to have some form of adaptive  
3 reuse. That adaptive reuse may not occur because the  
4 ship may be scrapped, and that is a distinct  
5 possibility, but if the ship is preserved, the  
6 structures that we built for decommissioning had a  
7 second life in that next life.

8           Next. The decommissioning process is  
9 primarily engaged with the nuclear power plant itself.  
10 For those of you online, I'm standing at the screen  
11 and I'm circling the containment vessel cutaway, which  
12 is the right hand of the two cutaways on this slide.  
13 And as we'll show later, we were able to preserve some  
14 signature remnants of the nuclear power plant that we  
15 are confident meet the license termination criteria,  
16 and result, in effect, in minimizing the harm to the  
17 power plant and providing the possibility for future  
18 interpretation.

19           Next. The project has been ongoing since  
20 2017. We have submitted the License Termination Plan  
21 relatively late in the process, near the end of the  
22 dismantlement phase. During phase one, which was  
23 primarily engineering and planning, we also undertook  
24 the infrastructure modification to the ship and we had  
25 an opportunity when the ship was dry-docked to remove

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1 some of the components that were near the skin of the  
2 ship, that were most easily removed when the ship was  
3 out of the water.

4 That phase completed in 2021. These are  
5 some of the infrastructure improvements that were made  
6 to the ship, the climate controls that allow our  
7 decommissioning workers to work year-round without  
8 suffering the heat and cold stress that ocean defines  
9 and the need to break productivity. They worked  
10 through. There were very few times where we really  
11 had to break production in order to take breaks  
12 because of either heat or cold.

13 Improved access and egress, facilities for  
14 contractors and staff, restroom facilities so people  
15 wouldn't have to leave the ship in order to go to the  
16 bathroom, and then they stay on board, that increases  
17 productivity. And the training center, which someday  
18 might be something else, a theatre or some such thing.  
19 Next.

20 These are a number of photographs, again,  
21 of some of the improvements. On the upper left is the  
22 portal, the horizontal portal we built into the C.V.  
23 to allow for safe access and egress by workers that  
24 also turned out to be an excellent material handling  
25 path during dismantlement. On the lower left is the

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1 area in Cargo Hold 3 where we established a water  
2 collection, a contaminated liquid collection bladder,  
3 so that liquids that were trained from systems as they  
4 were being dismantled were collected here and then  
5 transferred off the ship to tanker trucks that went to  
6 Irwin, Tennessee for processing.

7           And then on the right hand is a vertical  
8 stacked photograph of the Cargo Hold 4, material  
9 handling and packaging facility, where intermodal  
10 containers would be at the bottom of the shot, that's  
11 the tank top area of the cargo hold, and at the very  
12 top the ribbed structure is the hatch that opens to  
13 the weather. And so cranes outside the ship would be  
14 able to lower the empty intermodal containers in and  
15 raise them out. You can see the stairs in there that  
16 allow the workers to access. And difficult to see at  
17 the bottom of the picture is actually what we call a  
18 heel control system, which is a pair of pumps  
19 connected to two ballast tanks on the wings of the  
20 ship, that allow us to heel the ship to one side or  
21 the other or to keep it on an evenkeel, particularly  
22 when we were lifting the reactor vessel to improve  
23 clearances. So all very important infrastructure.

24           Next. Safety, always job one, every job  
25 begins with a safety pre-job brief, work planning and

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1 so forth. This happened to be for one of the  
2 intermodal lifts. Next.

3 These were the removal of the buffer seal  
4 charge pumps in the dry dock in 2019 in Philadelphia.  
5 Next.

6 This was back in Baltimore where the  
7 process began with removing the cupola head and the  
8 shield ring. They were on top of the containment  
9 vessel. So this was done in 2020 when the ship came  
10 back from dry dock. It was lifted with a barge crane  
11 that was located off on the starboard side of the  
12 ship. The structures themselves are on the pier in  
13 storage. They will be replaced on the ship at the end  
14 of the project.

15 Phase two began additional  
16 decommissioning, engineering and planning. The  
17 detailed plans for dismantlement, for waste material  
18 packaging, for transportation, for disposal and the  
19 like.

20 How am I doing on time?

21 MS. HOOD: Good.

22 MR. KOEHLER: Good? Okay, all right,  
23 talking fast. It's like I'm back in New York.

24 All right, we began minor component and  
25 equipment removals in September of '21. This, by the

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1 way, is the contract that was awarded to NSS Joint  
2 Venture, and they have been doing a bangup job. You  
3 know, it's RSCS and Energy Solutions as the prime  
4 members of the joint venture. So we've been very  
5 fortunate to have that deep body of experience at both  
6 companies bring to the decommissioning process. And  
7 Energy Solutions does not have a monopoly on  
8 decommissioning in the United States. I know you like  
9 that, and I know some of the other guys do, but they  
10 do really well. So we've been well served.

11 So this all began. We had a major change  
12 in approach to how we originally intended to remove  
13 structures inside containment. It was proposed in  
14 November of '21, we approved it in February '22, and  
15 it's really what resulted in the retention, as you  
16 will see, of the neutron shield tank outer wall. We  
17 surgically extracted the reactor from the center and  
18 that was primarily to reduce the occupational risk  
19 associated with the dismantlement and disposal of the  
20 lead shielding on the outer wall of the neutron shield  
21 tank.

22 Removing the lead that had been heat-  
23 treated and fixed to this thing was proving to be a  
24 little difficult. When you can't rip and ship it's  
25 difficult to do that and it all had to be done by

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1 hand. So it was a very thoughtful change in approach  
2 that was made by the contractor that was proposed at  
3 MARAD, which we accepted. The end result of that is  
4 a tremendous addition to the preserved components  
5 inside the plant as we'll see.

6 Major components were removed throughout  
7 2022. The vertical stack inside containment,  
8 beginning with a control rod to rod tower; the vessel  
9 had several of the internals that protruded above the  
10 flat surface of the bolting ring, and then finally the  
11 reactor vessel itself removed on November 8, 2022; the  
12 same day my granddaughter was born. And then we  
13 slipped that reactor vessel through the Howard Street  
14 Tunnel in the dead of night a week later, and it went  
15 out to Clive in Utah. All of our waste has been sent  
16 to the repository in Clive, Utah, with the exception  
17 of the water that was processed at Irwin, Tennessee.

18 The major dismantlement was completed in  
19 the spring of last year; we're in a wrap-up now. We  
20 went through and did a lot of additional minor  
21 interference removals to get the spaces really clean  
22 and ready for final status survey. Sometimes it's  
23 difficult to get around waterways and things like  
24 that, so we removed a lot more cable in the tail-end  
25 of phase three. We are finishing it up now with the

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1 removal of grading inside the C.V. where it's being  
2 replaced with fiberglass material.

3 So I have a number of photographs, if we  
4 can slide through those. These are workers engaged in  
5 the hand dismantlement of systems and components  
6 inside. This is in the containment vessel in this  
7 series of shots. This is all in the containment  
8 vessel on the first level inside the portal.

9 Next. This is material handling coming  
10 out of the portal on the upper left, using that with  
11 hand trucks, and then receiving the material in Cargo  
12 Hold 4 in the lower two shots. There's a high reach-  
13 down on the bottom, which can go up one deck, pick up  
14 the waste material and bring it down for loading into  
15 the IMs in the intermodals in the lower right photo.

16 Next. Again, packaging into the  
17 intermodals, this is work taking place inside Cargo  
18 Hold 4. It was very important to us, the license site  
19 boundary for NS Savannah is the ship's perimeter,  
20 okay? And so unlike a land-based site where there's  
21 quite a bit of property where you can do a number of  
22 different things, or you have auxiliary buildings that  
23 are cleared out and can be repurposed for other  
24 things, we didn't have the luxury of space. We only  
25 had the internal volume of the ship.

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1           Anything that would happen off the ship  
2 would be very expensive. You can find a mobile  
3 license, you can do work off the ship, you can come in  
4 with that type of a license. However, you have to  
5 find somebody who is willing to rent you the land to  
6 do that. You have to ensure that you don't schmutz it  
7 up and you have to clean it up at the end. And if you  
8 do it in a shipyard, lord forbid, because that's the  
9 most expensive place in the world to do work, is in a  
10 shipyard.

11           So we found that - I have five minutes  
12 left, she is telling me, wow. Is that five minutes to  
13 15 or 20?

14           MS. HOOD: To 20.

15           MR. KOEHLER: Okay, so we did it all  
16 inside. Next, next, next. Okay, more cutting up,  
17 next. Again, working safely, proper protective  
18 equipment going on. Next. Truck crane on the pier to  
19 lift the intermodals. Next, load them on the trucks.  
20 You will get a copy of all this. There's a video down  
21 at Cargo Hold 4. The barge cranes were used for the  
22 heavy lifts out of the containment vessel. This is  
23 control rod drive tower on the upper left, same  
24 photograph with this crane. This is now engaged to  
25 work over on the Francis Scott Key Bridge.

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1           This is the reactor removal in November of  
2           2022. We are now in phase three. We submitted the  
3           LTP. We are rolling into the final status survey  
4           program. We are working towards coordinating a  
5           schedule for confirmatory service by Oakridge in the  
6           summer of 2024. We continue to have our monthly  
7           status meetings with the NRC.

8           Next. The end state condition. Our  
9           consultation under the NHPA was initiated in 2018. We  
10          have what's called a programmatic agreement. The NRC  
11          is one of the parties to the programmatic agreement.  
12          That was signed in March of 2023, which was some  
13          months before we submitted the LTP.

14          I would like to go on the record as saying  
15          that the federal agency, in my experience, most  
16          interested in preservation of NS Savannah outside of  
17          MARAD itself, has been the United States Nuclear  
18          Regulatory Commission. And I really want to thank NRC  
19          for its deliberative approach to this, the serious  
20          nature of it, and the appreciation of NS Savannah as  
21          a shared legacy because it was the atomic energy  
22          commission forerunner of the NRC that was the joint  
23          program partner with the Maritime Administration that  
24          created this ship. So it's tremendously appreciated  
25          how much the NRC cares for this, just as we do.

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1           So meeting Minimized Harm was using the  
2 License Termination criteria, the radiological  
3 criteria for release, and determining this plant  
4 operated very cleanly. If there were components that  
5 we're going to be below the release criteria that we  
6 could preserve, seek their preservation.

7           Next. Whatever we do, scrapping, reefing,  
8 preservation, preservation implications with the Toxic  
9 Substances Control Act, there is PCBs on the ship, the  
10 United States Environmental Protection Agency is  
11 engaged in anything we will do. This is the principal  
12 reason why we adopted the 15 millirem standard that  
13 the EPA likes to use. We can debate that, you know,  
14 whether it's appropriate, but they like to use it, and  
15 we're using it because we don't want to have conflict  
16 with the EPA after the license is terminated.

17           Next. So where are we today? Tanya  
18 talked about background radiation in the United  
19 States. This ship protects us from lots of background  
20 radiation. You are really receiving less exposure  
21 inside the ship than you would get once you leave that  
22 ship, and that is from ground sources, waterborne  
23 sources, cosmic sources and background radiation. For  
24 years, for years, when the ship was a museum, when the  
25 ship was operating the reactor was operational, the

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1 exposure to passengers in this room and all the other  
2 spaces on this ship, was effectively zero. They  
3 didn't wear -- okay? And nothing changed after the  
4 plant ceased operating, and nothing has changed with  
5 the plant being dismantled and removed. So really,  
6 our challenge is to demonstrate of what remains inside  
7 the C.V., where do we stand?

8 Next. So again, we already meet  
9 unrestricted release criteria than most other places.  
10 Implicit in the release criteria is the possibility  
11 that some material remains behind. And our challenge  
12 is to demonstrate.

13 So next. Our end state is that we have  
14 some signature components remain.

15 Next, we looked at these three scenarios.  
16 We looked at the people that would be engaged in these  
17 three scenarios. We looked at the preservation  
18 scenario, the docent that's in the C.V. - counting  
19 down, how much time?

20 MS. HOOD: You have four slides, left, go,  
21 go, go.

22 MR. KOEHLER: What does the docent who  
23 stands in the containment vessel for 250 days a year  
24 get, plus the zero. The ship raking, the person  
25 that's cutting up the plant after it goes to Texas to

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1 be scrapped with its residual contamination. We use  
2 extraordinarily conservative numbers. We ridiculously  
3 over-expose the workers that were doing that work, and  
4 we demonstrate that in dismantling that remaining  
5 residual radioactive material, the worker is not  
6 exposed beyond the 15 millirem per year limit.

7 In the reefing scenario, which is  
8 plausible, but less likely, by statute, anybody can  
9 ask and we can give a ship to be reefed. We have  
10 policies that say we don't do ships that are of this  
11 vintage because of the presence of PCBs. That doesn't  
12 prevent somebody from wanting to remove all the PCBs.  
13 It doesn't prevent the power of a lone congressman  
14 from New Jersey, you know, who might want to dive on  
15 it. And so we had to at least consider it.

16 We went the extra mile. The purpose of  
17 artificial reefs is primarily to support commercial  
18 fishing. It is not for sport diving. And so we came  
19 up with a residential fisherman scenario to kind of  
20 parallel the residential farmer which is not  
21 appropriate to Savannah. And we demonstrate that in  
22 the reefing scenario, again, we meet the radiological  
23 release criteria.

24 Next. All right, couple last pictures, I  
25 think. These are some of the dismantlement shots.

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1 This is before and after. So this is before, this is  
2 after. Next.

3 Again, before and after. You can see the  
4 state of the spaces virtually bare steel.

5 Next. And this is underneath the  
6 containment vessel, and after, virtually bare steel.  
7 Just the cat walk, some of the temporary lights and so  
8 forth.

9 Next. This is inside containment before,  
10 including the asbestos flagging that's now gone.

11 Next. Clean steel. All right, next.

12 Last slide, I think, next to last slide.  
13 So what we have, what have we got left? We have  
14 something that doesn't exist anywhere else in the  
15 world. We have the signature components of a nuclear  
16 power plant in their native state capable of being  
17 released and capable of visitation and interpretation  
18 in the future.

19 If that doesn't sell the ship, I don't  
20 know what will. If the ship survives, this is a  
21 remarkable thing that we've done. If the ship doesn't  
22 survive, we should at least get an award. So again,  
23 nowhere else in the world can you ever see this, all  
24 right? Because on the Nautilus it's hidden. On the  
25 Lennon it's hidden, and everywhere else that it might

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1 exist it's still in service. I believe that's my last  
2 slide. Thank you.

3 MS. HOOD: So for those that are  
4 listening, we are conscious of time because this  
5 public meeting is for the public. We want to give you  
6 enough information so that you can get an idea of  
7 what's happening with what we're doing with the  
8 License Termination Plan. What's happening with the  
9 type of review, insight about the ship, so that your  
10 comments that you'll provide will be informed. We  
11 also want to ensure that we give you enough time to  
12 ask your comments and questions when we get to that  
13 portion of the meeting.

14 But before we get there, I still have  
15 another presentation. So to go over the License  
16 Termination Plan with you, as previously stated, the  
17 license termination submittal was submitted to the NRC  
18 October 23, 2023. It is currently available at the  
19 NRC's Agency Documents Assessment and Management  
20 System. We had that as an acronym ADAMS.

21 You can locate that at the Nuclear  
22 Regulatory Commissions website. When you go to the  
23 website, I'd like for you to select at the top tab  
24 Document Library. That will take you to the public  
25 ADAMS. There you can look up the accession number

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1 associated with the License Termination Plan as  
2 ML23298A041. The NRC has already done the acceptance  
3 review of this submittal. That is located under  
4 accession number ML23352A371.

5 For those that do not have access to  
6 ADAMS, you have the opportunity to give us a call.  
7 There's a 1-800 number: 1-800-397-4209. There is also  
8 a local 301 number. And this information is available  
9 for you with the slides that are associated with this  
10 public meeting schedule. The slide presentation that  
11 we are currently showing now as a slide presentation  
12 that was provided to you by the licensee are on that  
13 meeting schedule. You can also email us at PDR, Papa-  
14 Delta-Romeo, at NRC.gov.

15 There is a hearing opportunity available  
16 with this license submittal. It closes May 28, 2024.  
17 The comment period, which also supports us being here  
18 giving you more insight associated with this review,  
19 closes June 3, 2024.

20 Next slide, please. The License  
21 Termination process is an activity that describes what  
22 the NRC is reviewing regarding the performance of a  
23 final status survey that demonstrates to the licensee  
24 the criteria that the licensee has met the NRC's  
25 criteria for decommissioning. The final status survey

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1 consists of scans and surveys, direct measurements and  
2 physical sample collections and analysis.

3 The final status surveys are done to  
4 demonstrate to the NRC that residual radioactive  
5 material and the facilities attributable to past  
6 license conditions do not exceed the NRC's criteria.  
7 You have already heard from the license and  
8 information has been provided by Erhard that this  
9 plant, when it was running, was already below our  
10 current criteria and what they are licensing to for  
11 their projection is the 15 millirem per year which is  
12 EPA's criteria, which is still below the NRC's quite  
13 specific criteria.

14 The NRC staff reviews the final status  
15 survey design as part of the License Termination Plan  
16 review, and to determine whether the survey design is  
17 adequate for demonstrating compliance with the  
18 radiological criteria for license termination. The  
19 final status survey results are compiled in a final  
20 status survey report that the NRC used and compares to  
21 the NRC's confirmatory survey. That is an independent  
22 survey that the NRC does for our compliance measures.  
23 When the license is terminated, if it is terminated,  
24 and it will do so when it meets the site release  
25 criteria that we have.

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1           Next slide. For those that are needing  
2 access to the information associated with the license  
3 termination plan, you can find that information on the  
4 NRC web by going to the policy ADAMS that I stated  
5 initially. We have also placed this information  
6 inside of the federal registered notice. That notice  
7 can be accessed on Regulations.gov. You can go there  
8 and place the docket number in the search field: NRC-  
9 2024-0060. We published the information in the  
10 federal register on April 3, 2024, and you will see in  
11 there where you have the opportunity as the public to  
12 place your comments. Those comments are due to the  
13 NRC by June 3, 2024.

14           Next slide, please. And now we are at the  
15 comment and question portion and we've given enough  
16 time for the public to ask your questions. We will  
17 start with any questions that we have that are in the  
18 room, and then we will move online where Lynn Ronewicz  
19 will run the discussion points for the public meeting  
20 and give any insights associated with that.

21           I'm going to turn the meeting over to  
22 Lynn. She will run the next portion of this. Thank  
23 you for being here at this time. Lynn?

24           MS. RONEWICZ: Thank you. As Tanya said,  
25 we'll now go to questions or comments within the scope

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1 of this meeting. We are first going to ask those  
2 joining us in person if they have any questions for  
3 the NRC staff and then we will go to the virtual  
4 attendees. I will call on you by name in order of  
5 hands raised.

6 Please remember to speak loudly and  
7 clearly, stating your name first. And if you are  
8 affiliated with any entity, please state that entity.  
9 If you dialed in by phone, please raise your hand by  
10 pressing star-five and then once called on, press  
11 star-six to unmute yourself.

12 For accessibility purposes, you may turn  
13 on the closed captioning for this meeting by selecting  
14 the three dots on the top of your screen where it says  
15 More. From the dropdown menu, depending on your  
16 version of Microsoft Teams, you can select Language  
17 and Speech or accessibility to turn on live captions.  
18 Again, please keep your microphones muted unless you  
19 are speaking.

20 So at this time we are first going to go  
21 in the room. I see hands raised, but first we're  
22 going to go to those in person to ask if they have any  
23 questions or comments in the room before we go to  
24 online.

25 MS. HOOD: There are no hands being raised

1 in the room at this time, Lynn. You can begin with  
2 those that are online.

3 MS. RONEWICZ: Okay, so it looks like  
4 David Allard. Please go ahead with your question or  
5 comment.

6 MR. ALLARD: Hi folks, David Allard. I'm  
7 the vice-chair of the Three-Mile-Island Unit Two  
8 decommissioning, vice-chair of the Community Advisory  
9 Panel for decommissioning CMY Unit Two. Tanya, nice  
10 job, Andrew, Erhard, really good job there with you  
11 here. Just a quick question regarding the license.

12 Andrew mentioned that the termination is  
13 under research reactor, research test reactor  
14 protocol. Erhard, you mentioned that it was a power  
15 reactor, which I guess technically the reactor was a  
16 power reactor; for a ship, very unique. Just  
17 wondering what the decision was, and I think I know  
18 the answer, but what the decision was for going the  
19 research test reactor route.

20 MS. HOOD: So thank you for the question.  
21 One of the reasons why the NRC initially designated it  
22 as a research test reactor is because at the time when  
23 the Atomic Energy Commission was partnering with the  
24 government to put the ship together, it was considered  
25 a test reactor even though it has actively had a

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1 pressurized water reactor associated with it. So that  
2 was to give us an idea as an agency, how we can look  
3 at it, get some determinations, but once we made that  
4 as a legacy element, we let that remain, the  
5 parameters associated with the inspection is what was  
6 already prepared and shared with you in the  
7 presentation that Andrew Taverna has. We still do a  
8 quality inspection associated with it even though it  
9 is currently on paper labeled as a research test  
10 reactor. We were aware of what type of reactor was  
11 located on the ship when it was active. Hopefully  
12 that supports your response.

13 MR. ALLARD: Great, thanks. One quick  
14 follow-up question. Regarding Erhard going for the 15  
15 millirem versus the 25, we could talk about that  
16 offline, but by going to 15 millirem, and this is  
17 really a question for the NRC, do you consider that 15  
18 millirem basically satisfying the ALARA requirement for  
19 the 25 millirem plus ALARA by going through 15  
20 millirem criteria. Thanks.

21 MR. DIMITRIADIS: Hey Dave, this is Tony  
22 Dimitriadis, the branch chief.

23 MR. ALLARD: Hi Tony.

24 MR. DIMITRIADIS: How are you? Good, good  
25 question. If you consider the 15 millirem, so you

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1 know the regulatory limit for us is 25 millirem plus  
2 ALARA. So for MARAD to go to 15 is well within the  
3 ALARA we believe.

4 MR. ALLARD: Okay, thanks. Thanks, Tony,  
5 cheers. Thank you, folks.

6 MS. RONEWICZ: Thank you, and we're  
7 waiting for any other hands raised. Any other  
8 additional questions or comments.

9 MS. RONEWICZ: So far no hands raised.  
10 Did anybody in the room have anything at all or  
11 nothing at all in the room?

12 MS. HOOD: Nothing at all in the room at  
13 this time.

14 MR. FLETCHER: I just have a question.  
15 I'm not sure of the answer, but I was reading that in  
16 like a 2013 article, it said the ship is operating on  
17 a \$2 million budget. Do you have any sense of how  
18 that would - I assume it's changed, but how it would  
19 change further after the License Termination Plan?

20 MS. HOOD: That's a question for you to  
21 answer.

22 MR. KOEHLER: Okay, money. All right,  
23 Chris? Oh yeah, you need to state your name.

24 MR. FLETCHER: I'm Jack Fletcher.

25 MR. KOEHLER: Jack Fletcher, okay. So

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1 Jack, the Savannah for its entire history, with the  
2 exception of the brief interlude when it was a museum  
3 in South Carolina, was been on the federal budget.  
4 Our baseline services budget today is about \$3 million  
5 a year; that's what we ask for. That covers the cost  
6 of the labors facility, it covers the cost of our  
7 personnel to do the basic minimum standards of keeping  
8 the ship safe at the berth. The ship is the primary  
9 safety boundary element of the nuclear power plant, so  
10 keeping it safe and secure and in good mental  
11 condition is, we believe, we define as an element of  
12 the license activities. And keeping the lights on,  
13 the utility cost, and so on and so forth.

14           Ironically enough, back in the 1960s, the  
15 budget for the ship was about \$3 million a year. So  
16 we think that that's pretty good, you know? It's not  
17 too much off of inflation. Of course, we're not  
18 sailing around the world anymore. That amount of  
19 money is for a federal ship-keeping staff and the  
20 federal government keeping the lights on and so on and  
21 so forth.

22           If the ship goes into a preservation  
23 scenario, there are a number of different ways that  
24 that number might come down. It depends on how an  
25 entity would staff the ship. Usually there's quite a

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1 few volunteers and far fewer paid staff. They might  
2 not have to pay a lease, a full commercial-rate lease  
3 for the pier. We're probably not going to get much of  
4 a break on the electricity though.

5 So the budget could down by as much as  
6 half depending on different scenarios for some  
7 alternate user, but at the present time we're at about  
8 3 million a year.

9 MR. TABAKOV: And I from NRC -

10 MS. HOOD: Emil, say your name.

11 MR. TABAKOV: Oh, Emil Tabakov. I'm the  
12 financial analyst, and that is the prediction right  
13 now for the next three years, about that much. So we  
14 found it reasonable and we did a cost estimate that we  
15 need to make sure that they can be --

16 MR. KOEHLER: Thank you.

17 MS. RONEWICZ: Okay, we're going back  
18 online to see does anybody have any questions or  
19 comments online? If so, please raise your hand. John  
20 Kelly, please go ahead. John Kelly, you can. Are you  
21 able to unmute yourself?

22 MR. KELLY: John Kelly, former president.  
23 I was just curious how the NRC be engaged. Is it from  
24 MARAD or is this -

25 MS. HOOD: Can you repeat the question?

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1 We did not understand it.

2 MR. KELLY: Yes. So the NRC trying to be  
3 license termination reviews, is that being funded by  
4 MARAD or is that within the NRC's budget itself?

5 MS. HOOD: It's a combination question.  
6 The Nuclear Regulatory Commission receives its budget  
7 from Congress. Our licensees pay fees associated with  
8 the review of what the Nuclear Regulatory Commission  
9 does. At that time, when we get budgeted, our budget  
10 comes from Congress, but the licensee does pay fees  
11 that go into the bucket that reimburses elements of  
12 what the NRC gets paid. Does that help support you?

13 MR. KOEHLER: I think I can offer a  
14 follow-up.

15 MR. FLETCHER: So the Department of  
16 Transportation -

17 MR. KOEHLER: John?

18 MR. FLETCHER: Yes.

19 MR. KOEHLER: John, this is Erhard. I can  
20 add to that slightly. So those of you who are feds or  
21 former feds, or appreciate federal budgeting, know  
22 that there's this thing called the Anti-Deficiency  
23 Act. And the Anti-Deficiency Act generally holds that  
24 one federal agency will not pay another federal agency  
25 for services.

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1 Well, back in around the middle 2000s, the  
2 Department of Energy had this little thing going on  
3 called Yucca Mountain. That was supposed to be  
4 licensed by the Nuclear Regulatory Commission, and  
5 that was consuming an awful lot of the NRC's budget.  
6 So the Energy Policy Act of 2005 introduced this  
7 little tweak that said federal licensees will now pay  
8 fees for NRC inspections. We don't care what the  
9 Anti-Deficiency Act says. You're going to pay fees.

10 And I think that was really supposed to be  
11 for the DOE, but it wound up catching us and a few  
12 others as well. So MARAD has been paying fees since  
13 2005, and believe me, I've had to explain that to more  
14 than a few budget officers over the years. This is  
15 what the law says. So yes, we do pay fees and we're  
16 very proud to do so.

17 MS. HOOD: Thank you, Erhard. Appreciate  
18 that, Erhard. John, does that support your response?

19 MS. RONEWICZ: Okay, we're waiting for any  
20 other hands raised online, and of course, if anybody  
21 else has anything in the room, feel free to speak up.

22 MS. HOOD: There are no other questions in  
23 the room.

24 MS. RONEWICZ: Okay, no hands raised, but  
25 why don't we give it just a few more seconds or so

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1 just to see if anybody has any questions before I turn  
2 it back over to you, Tanya, to close it out. So far  
3 no hands raised. It looks like we have no other  
4 questions or comments, Tanya.

5 MS. HOOD: Thank you so much for that,  
6 Lynn.

7 And with that, we want to say thank you.  
8 Thank you so much for participating in this public  
9 meeting related to the comments associated with  
10 License Termination Plan for the Nuclear Ship  
11 Savannah. I will now turn the meeting over to Jane  
12 Marshall for our closing remarks.

13 MS. MARSHALL: Thank you, Tanya. So I get  
14 the pleasure of both opening and closing the meeting  
15 this evening. I'd like to thank you for taking your  
16 time to join us here onboard the ship whether in-  
17 person or virtually this evening. Thanks for the  
18 questions and the discussion. I was really pleased to  
19 hear as many historians as are online and the  
20 preservation aspect with the ship. Again, as Tanya  
21 mentioned, we invite you to provide your comments  
22 online on this topic, or if you have other questions  
23 you can also contact the Nuclear Regulatory Commission  
24 staff.

25 With that, the meeting is adjourned.

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1 Thank you.

2 MS. HOOD: There's one more thing. We  
3 will adjourn shortly. But I want to give an  
4 opportunity to ensure that if there's any final  
5 comments associated with what the court reporter  
6 needs, and to let those of the public know that there  
7 is a feedback form that is available for this  
8 meeting. It will more likely show up like 7:35  
9 because it is scheduled to show up at the end of the  
10 time period associated with this meeting. You can go  
11 to the Nuclear Regulatory Commission where you went to  
12 register. You will see under the meeting feedback  
13 form there will be a link. In that link you can get  
14 your comments about this meeting. For the comments  
15 associated with License Termination Plan, you have to  
16 go to Regulations.gov to provide your comments there.

17 (Whereupon, the above-entitled matter went  
18 off the record at 7:11 p.m.)

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