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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

PUBLIC HEARING  
ON THE STATUS OF THE SAVANNAH RIVER SITE

JULY 13, 2021

625 Indiana Avenue, NW  
Washington, DC 20004

Public Hearing

Defense Nuclear Facilities Safety Board

7/13/2021

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A P P E A R A N C E S

DEFENSE NUCLEAR FACILITIES SAFETY BOARD:

- JOYCE L. CONNERY, Chair
- THOMAS A. SUMMERS, Vice Chair
- JESSIE H. ROBERSON, Board Member
- CHRISTOPHER ROSCETTI, Technical Director

DEPARTMENT OF ENERGY:

- WILLIAM I. WHITE, Acting Assistant Secretary,  
Office of Environmental Management
- GREG SOSSON, Deputy Assistant Secretary for  
Safety, Security and Quality Assurance
- MICHAEL D. BUDNEY, Manager, Savannah River  
Operations Office

NATIONAL NUCLEAR SECURITY ADMINISTRATION:

- CHARLES P. VERDON, Acting Under Secretary for  
Nuclear Security and Administration
- JAMES McCONNELL, Associate Administrator for  
Safety, Infrastructure and Operations
- JASON A. ARMSTRONG, Savannah River Field Office  
Manager

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

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3 CHAIR CONNERY: Good afternoon. My name is Joyce  
4 Connery, and I am the Chair of the Defense Nuclear  
5 Facilities Safety Board. I will preside over today's  
6 public hearing. I now call this hearing to order.

7 I would like to re-introduce my colleagues from  
8 the Board. Thomas Summers is the Vice Chair of the  
9 Board, and Jessie Roberson is a Board member. We three  
10 constitute the Board.

11 The General Counsel, Mr. Kevin Lyskowski, is also  
12 here. We also have with us our Technical Director,  
13 Mr. Christopher Roscetti. Mr. Roscetti will provide an  
14 overview of some safety issues at the Savannah River  
15 site's training facilities.

16 Additionally, several members of the Board's  
17 staff closely involved with the oversight of the  
18 Department of Energy's Defense Nuclear Facility are also  
19 gathered.

20 The purpose of this hearing is to gather  
21 information and to discuss the Department of Energy and  
22 the National Nuclear Security Administration's actions  
23 that could impact the safety posture at the defense  
24 nuclear operations at the Savannah River site. The  
25 purpose of our first session is to discuss the safety

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1 basis of the Savannah River tritium enterprise,  
2 completed improvements and ongoing and planned actions  
3 to address the high radiological dose consequences to  
4 workers and collocated workers for several accident  
5 scenarios.

6 In particular, the Board will focus on the  
7 ongoing actions at the tritium facilities that DOE cited  
8 as a basis to reject the Board's Recommendation 2019-2,  
9 Safety of the Savannah River Tritium Facilities.

10 Like the meeting this morning, today's hearing  
11 was publicly announced on June 24th, 2021, on the  
12 Board's public website, and was subsequently noticed in  
13 the Federal Register on July 7th, 2021.

14 In order to assure accurate and timely  
15 information for the public, this hearing is being  
16 recorded through a verbatim transcript, a video  
17 recording and live video streaming. The transcript,  
18 associated documents, public notice and video recording  
19 will be available for viewing on our public website.  
20 The video recording will be available through our  
21 website for at least 60 days.

22 The Board allocated time at 3:40 p.m. today to  
23 hear comments from interested members of the public, but  
24 no one signed up to speak, so we will dispense with  
25 public comments for this portion of the afternoon's

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1 events, but I want to remind anyone watching online that  
2 they can submit written comments up until August 13th,  
3 2021, when the hearing record will close. Comments may  
4 be sent to hearing@dnfsb.gov. Any comments we will  
5 receive will be included as part of the public record.

6 I want to note that we reserve the right to  
7 further schedule and regulate the course of this hearing  
8 to recess, reconvene, postpone or adjourn, or otherwise  
9 exercise our authority under the Atomic Energy Act of  
10 1954, as amended.

11 I will now turn to my fellow Board members for  
12 their opening remarks.

13 Mr. Summers?

14 VICE CHAIR SUMMERS: Thanks, Chair Connery. I  
15 would just like to comment that I really appreciate  
16 everyone's participation today in talking about the  
17 safety posture of the Savannah River tritium enterprise  
18 facilities and that I am glad to be here as well. Thank  
19 you very much.

20 Over to you, Ms. Connery.

21 CHAIR CONNERY: Thank you, Mr. Summers.  
22 Ms. Roberson, your opening remarks?

23 BOARD MEMBER ROBERSON: Thank you, Ms. Connery.  
24 I know we'll be discussing the details of the state of  
25 the safety posture of the tritium enterprise this

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1 afternoon. I hope we will be able to see progress made  
2 since the Board issued Recommendation 19-2, Safety of  
3 the Savannah River Tritium Facilities, issued on June  
4 12th, 2019. While the Department rejected the  
5 recommendation, and they rejected the reaffirmation of  
6 the recommendation when they were originally issued, we  
7 were pleased to host a public meeting in December of  
8 2019 and hear directly from the Department about its  
9 planned actions that could alleviate at least some of  
10 the safety concerns the Board highlighted in the  
11 original recommendation, and most specifically,  
12 calculated radiological dose consequences to workers and  
13 collocated workers for several accident scenarios.

14 It has been two years since the Board issued the  
15 recommendation, and I am looking forward to getting  
16 updated on the status of those actions taken thus far.

17 Thank you. Ms. Connery?

18 CHAIR CONNERY: Thank you, Ms. Roberson. And now  
19 I am going to give my personal remarks as well, and I am  
20 going to use my remarks for the benefit of those  
21 watching who aren't familiar with the tritium enterprise  
22 at Savannah River, so I thought I would give you a short  
23 introduction.

24 The Savannah River tritium enterprise is  
25 comprised of a number of facilities on the Savannah

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1 River site managed by the National Nuclear Security  
2 Administration. Tritium, an isotope of hydrogen, is a  
3 vital component to our nuclear weapons, and Savannah  
4 River is charged with supplying and processing tritium  
5 for our stockpile. This is an important national  
6 security mission.

7 The Department's own hazard analysis team  
8 identified several credible accident scenarios with  
9 significant dose consequences to workers in the vicinity  
10 of the tritium enterprise. This could also result in  
11 high-dose consequences to workers in the H area of  
12 Savannah River, including individuals in the site's  
13 nearby cafeteria and training facility.

14 The Board determined that the risk was  
15 significantly high enough that it considered the  
16 situation to be an issue of adequate protection and  
17 wrote Recommendation 2019-2, asking the Secretary to  
18 implement near-term compensatory measures, longer term  
19 controls, and to evaluate and improve the adequacy of  
20 its emergency response capabilities to respond to these  
21 potential accident scenarios.

22 As Ms. Roberson pointed out, the Department  
23 rejected the Board's recommendation and the Board's  
24 subsequent reaffirmation of the recommendation during  
25 the last administration. Today's hearing is to discuss

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1 the actions taken and planned at the site to address  
2 these ongoing safety concerns.

3 So to discuss these issues with us today, we have  
4 representing NNSA this afternoon the same people we had  
5 this morning, but I'm going to re-introduce them. So I  
6 would like to formally re-introduce and welcome back  
7 Dr. Charles Verdon, the Acting Undersecretary for  
8 nuclear security and the NNSA Administrator, and  
9 Mr. James Armstrong, the Manager of the Savannah River  
10 field office. Also with us again in a supporting role  
11 is Mr. James McConnell, the Associate Administrator for  
12 Safety, Infrastructure and Operations. Finally, I would  
13 like to welcome back Dr. -- Mr. Michael Budney, the  
14 Manager of the Savannah River Operations Office. We are  
15 pleased to have you with us today.

16 So with that, I am going to begin the session  
17 with a question to frame the discussion. I already gave  
18 a little bit of background for the public, but I would  
19 like to ask our Technical Director, Mr. Roscetti, to  
20 provide a brief overview of what the actual  
21 Recommendation 2019-2, the safety of Savannah River  
22 tritium facilities, said, and what the Department's  
23 response to it was. So if you could do that for us,  
24 Mr. Roscetti, we would be appreciative. Thank you.

25 MR. ROSCETTI: Thank you, Ms. Connery.

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1           In the interest of time, I have submitted a  
2 written statement for the record that addresses the  
3 history of Recommendation 2019-2, Safety of the Savannah  
4 River Tritium Facilities. To briefly answer your  
5 question, the calculated dose consequences for certain  
6 potential energetic accidents at the Savannah River  
7 tritium enterprise are 30 to 90 times above the  
8 Department's criteria for worker safety. I am providing  
9 Exhibit 1 to illustrate the types of accidents and  
10 calculated dose consequences that I am referring to.

11           On the Secretary's behalf, the NNSA administrator  
12 rejected the Board's recommendation because, as I  
13 understand, NNSA's leadership disagreed with the Board's  
14 conclusion that adequate protection of the worker and  
15 public health and safety is not assured.

16           The Administrator's response to the  
17 recommendation stated that ongoing and planned safety  
18 improvements at the tritium facilities adequately  
19 addressed the Board's concerns. I am providing Exhibit  
20 2 to show some of these planned actions and the  
21 associated timelines. I will highlight some of the  
22 staff's concerns.

23           First, the facility's new safety basis was  
24 approved in 2019. This safety basis proposes some  
25 additional controls to reduce the calculated dose

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1 consequences for certain accidents; however, the  
2 proposed controls do not apply to all energetic  
3 accidents of concern. The safety basis still describes  
4 several accident scenarios with very high calculated  
5 dose consequences to the workers without adequate  
6 mitigation controls. In addition, the contractor for  
7 the tritium facilities does not expect to complete  
8 implementing this new safety basis until 2025.

9 Secondly, NNSA has identified plans to perform  
10 additional structural analyses and to develop controls  
11 for seismic events. The staff agrees that if the  
12 evaluation showed that certain structures, systems and  
13 components can meet the site's seismic performance  
14 criteria, and if these structures, systems and  
15 components are qualified and maintained, these controls  
16 would help reduce the calculated dose consequences  
17 resulting from seismic events; however, physical  
18 modifications are necessary to upgrade these structures,  
19 systems and components. The physical modifications  
20 would likely take years to implement, assuming they are  
21 pursued.

22 Additionally, there are several other accidents  
23 of concern outside of seismic events. Lastly, NNSA has  
24 begun design work for a new facility intended to replace  
25 H area old manufacturing. This new facility, known as

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1 the tritium finishing facility, is early in the design  
2 phase. The Board has completed a preliminary review of  
3 the design and transmitted a letter to the Secretary of  
4 Energy on June 15th, 2021, with several observations  
5 that should be addressed as the design progresses. It  
6 will take at least ten years to complete the design,  
7 build the facility, and start up the tritium finishing  
8 facility. In the interim, NNSA has not established  
9 measures to ensure adequate safety of the Savannah River  
10 tritium enterprise.

11 The Board's staff will continue to evaluate  
12 NNSA's actions and report to the Board on the degree to  
13 which NNSA achieves demonstrable improvements in the  
14 assurance of adequate protection for facility workers,  
15 collocated workers, and the public in and around the  
16 Savannah River site tritium facilities.

17 Thank you for the opportunity to address this  
18 important topic.

19 CHAIR CONNERY: Thank you, Mr. Roscetti, for your  
20 remarks, and I believe the exhibits will be available on  
21 our website for anyone who wants to take a closer look.

22 So with Chris kind of framing the issues around  
23 2019-2, and I know Mr. Armstrong, that you have been at  
24 the site for about three months now, so you're  
25 completely up to speed on everything that's going on.

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1 So I want to talk to you a little bit about the combined  
2 tritium enterprise safety basis, which was approved in  
3 2019, and as Mr. Roscetti noted, the implementation  
4 won't begin until 2025. So I want to understand from  
5 you, which improvements from that new combined safety  
6 basis can be implemented sooner and which can't be  
7 implemented right away, and why not?

8 MR. ARMSTRONG: Thank you, Ms. Connery. A quick  
9 sound check. Can you hear me?

10 CHAIR CONNERY: Yes.

11 MR. ARMSTRONG: Okay. Thank you very much for  
12 the question. So you're correct, NNSA approved the  
13 combined documents with the analysis in December of 2019  
14 for the expected implementation by 2025. The team is  
15 actively engaged in that. They meet routinely with our  
16 M&O partner. We also invite the resident inspector to  
17 attend all of those meetings and to hear our progress as  
18 we proceed down this path.

19 We have completed 14 actions to date with actions  
20 being on time. We also conducted a independent  
21 structural engineering analysis where NNSA, or National  
22 Nuclear Security Administration, hired an independent  
23 professional, licensed professional engineer, to  
24 evaluate that engineering study to look at the  
25 structural integrity of our facilities to a Natural

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1 Phenomena Hazard Design Category 3, Criteria. That  
2 review is being -- I understand that review is being  
3 done to validate the engineering study reports.

4 We recently had approved the plan for the actions  
5 to have the safety basis implemented by 2025. Now, the  
6 process to implement it and work towards it requires a  
7 lot of work, requires our actions to be solid. As we  
8 know in the nuclear safety space, there is no hope, or I  
9 think it's got to be absolutes, and that's what we're  
10 working towards. And lot of questions are being asked,  
11 a lot of good, solid understanding has to be made, and  
12 so things that they're doing right now -- excuse me for  
13 a minute here -- include fire dampers, the fire hood,  
14 includes the fire suppression system.

15 So those things do not -- are not executed  
16 overnight. And they need to be done right and they need  
17 to be done accurately. So safety remains our number one  
18 priority, and as we do that, we're making sure that  
19 everything we do does not have an unintentional  
20 consequence and that we're doing it right and correctly.

21 CHAIR CONNERY: Thank you. So just a followup,  
22 if I may.

23 MR. ARMSTRONG: Yes.

24 CHAIR CONNERY: And it has to do with some of the  
25 elements of the safety management programs have been

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1 elevated to specific administrative controls in that new  
2 combined safety basis. So this is not physical activity  
3 like the fire dampers or the hood.

4 MR. ARMSTRONG: Right.

5 CHAIR CONNERY: So in those instances, are there  
6 specific administrative controls that -- like the  
7 critical lift program and for the traffic control  
8 program, that can be implemented near term and are you  
9 willing to do so?

10 MR. ARMSTRONG: So one of the challenges is  
11 reduction of material risk during critical lifts, I  
12 believe you're getting to. There is a -- they have  
13 developed a procedure that identifies how to inventory  
14 or relocate our filled containers out of the affected  
15 area. So we are doing things to address that. We also  
16 look -- my priority is always actually first engineer  
17 controls before they ever go down to administrative  
18 controls. So we are evaluating that, but they are  
19 taking interim measures now to manage the dosage.

20 So, you know, this is calculated exposure, right?  
21 So we -- some of the events are described as unlikely or  
22 beyond -- beyond unlikely. So that doesn't alleviate  
23 our desire to mitigate and manage it through engineering  
24 controls and we can go down through the process as  
25 appropriate. And so right now, we do have a specific

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1 administrative control for critical lifts.

2 MS. CONNERY: So I didn't quite catch the answer  
3 to that. The last piece that you said. So I know that  
4 you are looking to implement the safety basis with those  
5 specific administrative controls, but the implementation  
6 date of 2025, are you saying that for critical lifts,  
7 for instance, that specific administrative control is in  
8 place now? Are you implementing it now before -- you're  
9 not waiting until 2025 in other words?

10 MR. ARMSTRONG: No, we are still waiting to  
11 implement is my understanding.

12 CHAIR CONNERY: Okay. That answers my question.  
13 Thank you.

14 So just to continue on these lines, the  
15 consolidated hazards analysis team identified these  
16 events that we discussed with significant consequences  
17 and proposed several activities to improve safety and  
18 reduce consequences. Some of those proposals from your  
19 consolidated hazards team didn't appear in the final  
20 list of 19 items proposed by the contractor or in the  
21 approved DSA that we've seen. For instance, the CHA  
22 team proposed reducing that material-at-risk within the  
23 affected processes during certain lifts to reduce the  
24 consequences.

25 So this is a conversation we were just having. I

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1 want to understand if it's going to be implemented and  
2 if so, if not, why not?

3 MR. ARMSTRONG: So the reduction to our risk, I  
4 understand, is impacted to our mission, to the inventory  
5 through that critical lift. The other one we had was  
6 inline oxygen monitors, and that was not feasible due to  
7 piping configuration and multiple interfaces with  
8 outside gas interferences. And then the other one I  
9 believe was to have a room or a building-level scrubber.  
10 We did an in-depth evaluation of that, and it was  
11 determined not to be feasible due to the sheer size,  
12 that we would actually increase hazards during loss of  
13 confinement due to a tritiated water that would be  
14 reduced.

15 CHAIR CONNERY: Thank you. I'm going to turn the  
16 questioning over to Mr. Summers now for the second line  
17 of inquiry.

18 VICE CHAIR SUMMERS: Thank you, Ms. Connery.

19 Dr. Verdon, the next three questions are directed  
20 to you, sir. Dr. Verdon, sir, NNSA has stated that the  
21 accident analysis is extremely conservative, and that  
22 the existing tritium facilities do not need additional  
23 safety controls, even when calculating doses to  
24 collocated workers are approaching 100 times higher than  
25 DOE guidelines.

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1           First question is, Dr. Verdon, what are NNSA's  
2           criteria for accepting levels of risk for its workers  
3           when the risks far exceed DOE guidelines? Thank you.

4           MR. VERDON: So, again, I think it's our --  
5           again, we're evaluating -- we evaluate the risks against  
6           the likelihood of what we had in place. We fold in  
7           engineering and administrative controls, workforce  
8           training, and we make the risk evaluation. We tap into  
9           experts within our own field to help us evaluate what --  
10          you know, what their assessment of that would be, and we  
11          make a risk-based, informed judgment on, you know, what  
12          is necessary.

13          And I think, you know, as we're saying, we're  
14          not -- we're not standing idly by; we are making -- you  
15          know, we are making improvements. You know, people can  
16          always want them to go faster, but we're making  
17          improvements that are feasible to be done with the  
18          facilities that we have, and in some cases, you know,  
19          again, going to whole new facilities to replace them.  
20          But I think it's really to evaluate the accident that's  
21          identified, evaluate the consequences and looking at the  
22          mitigations that we have in place already, and making  
23          sure that we're optimizing that to the best extent  
24          possible while protecting the workforce and the public.

25          VICE CHAIR SUMMERS: Thanks, Dr. Verdon. To

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1 continue on, can you explain the criteria, based upon  
2 your risk analysis, that's applied to the situation to  
3 justify the decision to accept excessive risk to the  
4 workers, especially collocated workers?

5 MR. McCONNELL: Good afternoon, I'm Jim McConnell  
6 that supports Dr. Verdon.

7 The Department's approach to safety has different  
8 calculations that are conducted for different reasons.  
9 We have -- we have a numerical threshold for public  
10 safety, a group whose agents we can't control and whose  
11 training we don't have any influence over. And so we  
12 are very careful to make sure we understand what the  
13 public threshold is. And thankfully, because of the  
14 remoteness of the Savannah River site, we are successful  
15 in that.

16 There are qualitative evaluations of safety for  
17 workers because we do have the control over their  
18 training, their behaviors, before and after an event.  
19 The particular calculation, one of the things we do, and  
20 one of the reasons that we do it, is that our regulatory  
21 structure assigns greater rigor to how we implement  
22 controls depending on the consequences of that -- that  
23 that control is attempting to mitigate.

24 So we do a calculation both for the public, and  
25 for the workers, and as you've said here, that the

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1 calculation for the workers came out significantly  
2 higher than the threshold that tells us when we need to  
3 put in place the high quality controls. And so what we  
4 have done as a result of that analysis is conclude that  
5 the controls that we put in place to protect the  
6 collocated workers must be something we call safety  
7 significant or higher, which is the highest two grades  
8 of quality that we can apply, whether it's an  
9 administrative control, a specific administrative  
10 control, or a physical control like the fire dampers  
11 that Mr. Armstrong was talking about.

12 So we apply that in order to figure out how to  
13 inform what is possible, what we can do to protect  
14 people, but in terms of an absolute judgment of above  
15 this it's not adequate and below this it is, that regime  
16 does not -- it's informed by -- by both mission need and  
17 risk, and then senior leaders like Dr. Verdon make the  
18 decision at the end of the day.

19 VICE CHAIR SUMMERS: Thank you, Mr. McConnell.  
20 Thanks, Dr. Verdon.

21 Dr. Verdon, my last question along these lines  
22 are -- has to do with who the decision-maker is. So,  
23 sir, who in DOE would be responsible for making such a  
24 risk-based safety decision?

25 MR. VERDON: It would be the Administrator

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1 informed by all of his technical support team, but the  
2 Administrator.

3 VICE CHAIR SUMMERS: Okay. Thank you very much,  
4 Dr. Verdon and Mr. McConnell. I appreciate it.

5 Along a different line of inquiry, Dr. Verdon,  
6 NNSA has characterized the contractor's proposed actions  
7 as a process of continuing improvement and not as a  
8 process of correcting inadequate safety conditions. To  
9 the Board's knowledge, NNSA has not explicitly accepted  
10 those proposed actions. So, sir, why do you believe  
11 that the current safety posture at the tritium  
12 facilities provides adequate protection for its workers  
13 and are there any additional actions that you believe  
14 should be taken? Thank you.

15 MR. VERDON: So, again, I think our evaluation is  
16 they are -- they are adequate, but we recognize that  
17 they -- we can always improve, we can always get better,  
18 and that's why we have the continuous improvement  
19 program, but we believe that the -- that they are  
20 adequate.

21 VICE CHAIR SUMMERS: So are there any additional  
22 actions that you think should be taken at this time or  
23 in the near future to improve safety?

24 MR. VERDON: I think the team has provided a  
25 pretty in-depth list of activities that are being

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1 undertaken. We're always -- you know, Jim and others  
2 are always asking for -- for more, you know, input from  
3 the sites as they identify things. So, again, we're  
4 always open to improvements in these areas, but as of  
5 this point, we've identified those key high-leverage  
6 ones.

7 VICE CHAIR SUMMERS: Very good. Thanks,  
8 Dr. Verdon.

9 At this time, I would like to turn over the stage  
10 to Ms. Roberson.

11 Ms. Roberson, over to you, ma'am.

12 BOARD MEMBER ROBERSON: Thank you, Mr. Summers.

13 I saw a couple of these I'd like to go back to.  
14 Mr. Armstrong, I just want to do a followup on  
15 Ms. Connery's question, and we talked about the  
16 consolidated hazards analysis team and their  
17 recommendations. The recommendation to -- you know, for  
18 interlocked inline oxygen monitors, or build another  
19 stripper/scrubber system to mitigate -- either of these  
20 to mitigate explosive events.

21 And so I understand you to say you've done those  
22 evaluations and you've concluded neither is feasible,  
23 right? I understood that right?

24 MR. ARMSTRONG: Yes. Yes, ma'am.

25 BOARD MEMBER ROBERSON: And so my question is,

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1 and so what now? So the object of those proposed fixes,  
2 are they being addressed -- going to be addressed in  
3 some other way? Is the -- is that risk just intended to  
4 be accepted through some formal process? What happens  
5 now?

6 MR. ARMSTRONG: Thank you, Ms. Roberson.

7 So we are -- we had a prudent plan going forward,  
8 as the Board recognizes, that there is a series of  
9 actions that must be completed that the NNSA has  
10 required the M&O to perform. And we have summarily  
11 approved that and we continue to meet routinely to track  
12 progress for meeting those 14 actions, or the 14 that  
13 have been completed so far to date. There's more than  
14 14, excuse me.

15 Those meetings also include resident inspectors,  
16 also, because I believe they're a valid part of seeing  
17 how we do things and are part of that process. To  
18 address what you had mentioned, the inline oxygen  
19 monitors and the scrubber system, at this time, I just  
20 know that they were determined to be not feasible, and I  
21 would need to get back to the Board for why they were  
22 determined not to be feasible, but right now, I  
23 understand that they would not be feasible.

24 BOARD MEMBER ROBERSON: So, thank you, sir. So  
25 you're saying if we can take that for the record, you

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1 will get back to the Board. So we'll take that down,  
2 thank you.

3 And I would like to do a followup, and,  
4 Dr. Verdon, you may want Mr. McConnell, since he  
5 provided the initial response. I just wanted to kind of  
6 follow up on the response that Mr. McConnell provided to  
7 Mr. Summers and say I think we do understand the  
8 difference in how the Department is making  
9 determinations about safety controls for the public and  
10 for the workers and collocated workers.

11 I think our question, as it relates, we're not  
12 trying to confuse the public and the collocated workers,  
13 we do understand, but we also understand that the  
14 Department has established a standard. Let's just talk  
15 about the workers and collocated workers. And I guess  
16 the confusing part for us is, we don't see any cases  
17 across the complex where the Department just says, oh,  
18 that's just, you know, an estimate or -- I mean, I  
19 understand it's an estimate, they're all estimates, even  
20 for the public. I mean, there are qualitative factors  
21 involved in that, but just the acceptance of something  
22 of a risk so significant, and I think that's what we  
23 were asking why are you comfortable with that, more than  
24 anything else.

25 I didn't know if you wanted to add anything, but

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1 I wanted to come back to that.

2 MR. McCONNELL: Thank you. I appreciate that.  
3 Of course, as I just described, I don't mean to belabor  
4 it again, the specific decision derived from that  
5 calculation is the classification of the controls, and  
6 our classification of controls is consistent with the  
7 regulatory decision-making that comes out of that  
8 analysis.

9 Having said that, maintaining the safety of the  
10 public, the workers and the environment when you're  
11 engaged in mission -- you know,  
12 national-security-essential work with radioactive  
13 hydrogen, is hard, and we are continuously looking for  
14 ways to make it safer and to reduce risk. Some of those  
15 actions we can take credit for in our regulatory regime,  
16 but because of the very specific controls over what we  
17 are allowed to take credit for or we're not, some of the  
18 things we do, because we believe that they are  
19 beneficial in a kind of -- in a more practical way, you  
20 know, but not calculated regulatory way.

21 We'll continue to work. We -- you talked this  
22 morning, for those folks who were on this morning, about  
23 emergency preparedness and about the potential  
24 perishability of not being -- maintaining confidence and  
25 continuing to practice with that. We share your

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1 concerns. Those are the kinds of things that we need to  
2 continuously work at because in an environment such as  
3 this, where the national security mission driver is very  
4 high, but the nature of the work means we rely on our  
5 workers quite a bit in a practical sense, we have to  
6 keep them proficient and trained and we have every  
7 intention to not only do that but continuously improve  
8 on that.

9 So we are aligned with the Board on the need to  
10 focus on the safety of tritium, because it is such a  
11 unique and complicated environment. As your Technical  
12 Director said, we believe that we have demonstrated  
13 adequate protection, which is a relative decision in the  
14 worker safety space that takes into account mission  
15 essentiality, but we are consistent with the Board in  
16 pushing on ways to continuously improve and make that  
17 risk lower and provide better safety.

18 BOARD MEMBER ROBERSON: Thank you, Mr. McConnell.

19 So my next question is for you, Mr. Armstrong.

20 In July of -- can you hear me?

21 MR. ARMSTRONG: Yes.

22 BOARD MEMBER ROBERSON: Okay, great. In July of  
23 2018, your contractor, or your -- you know, your  
24 predecessor was there, proposed 19 actions to NNSA that  
25 could potentially reduce the consequences of several

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1 events to the collocated worker. First, I guess I'd  
2 like to ask, you referred to 14, because I'm assuming  
3 those are 14 actions from the new DSA. That's not this  
4 19, is it?

5 MR. ARMSTRONG: No, I'm sorry, it's 14 of the 19  
6 complete.

7 BOARD MEMBER ROBERSON: Fourteen of these 19  
8 actions that are complete?

9 MR. ARMSTRONG: Yes.

10 BOARD MEMBER ROBERSON: And when we had our  
11 public meeting in December of 2019, we were told,  
12 because we asked at that time, what -- I'm sorry?

13 MR. ARMSTRONG: No, I just unmuted you. I'm  
14 sorry.

15 BOARD MEMBER ROBERSON: Okay. We were told that  
16 NNSA was still in the process of evaluating which of  
17 those it would accept for action and which ones it would  
18 not. And so we actually haven't seen that decision, per  
19 se, and so I would ask you, so 14 of the 19 are  
20 complete. Is NNSA committed to working through -- have  
21 you accepted the 19 as proposed by the contractor, or  
22 are some of those eliminated?

23 MR. ARMSTRONG: We have accepted all 19, and we  
24 actually -- and just recently, I formally approved  
25 those.

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1 BOARD MEMBER ROBERSON: Okay, excellent. Is that  
2 a public approval? Is that something we could get?

3 MR. ARMSTRONG: I transmitted a letter to the --  
4 to the M&O, so I'm guessing they would get that to you.

5 BOARD MEMBER ROBERSON: Excellent. That's  
6 another for the record question. So thank you.

7 So two of those I want to focus in on, and you've  
8 mentioned them in your earlier comments. One -- okay.  
9 One of them is the structural analysis of building 233-H  
10 in the tritium extraction facility, and other selective  
11 structure, systems and components, and the second one is  
12 the seismic tritium confinement system upgrade. And so  
13 I want to focus on the status of the design and  
14 procurement of necessary components.

15 So you mentioned -- you spoke earlier about the  
16 structural analysis, which we applaud you guys for doing  
17 that. I guess the question I have as it relates to the  
18 structural analysis, I think we get nervous when we see  
19 the evaluation of the evaluation taking longer than the  
20 baseline evaluation. And so I guess the question we  
21 want to ask is, are you guys committed to completing  
22 that evaluation, and you have some sense from the  
23 engineering evaluation what are some of the likely  
24 outcomes, and so are you committed to making facility  
25 modifications if that's the result?

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1           MR. ARMSTRONG: Yes. So the seismic tritium  
2 confinement system is being evaluated for upgrade to a  
3 safety class system. The conceptual design package and  
4 Level 3 cost estimate has been completed. The work  
5 schedule to have that completed is fiscal year '24, and  
6 we'll also be doing some fire system upgrades. That  
7 should be done by the end of fiscal year '23.

8           BOARD MEMBER ROBERSON: Wonderful. So you are  
9 committed to execute whatever physical requirements come  
10 out of the evaluation? That's perfect.

11           My next question is for you, Mr. Armstrong, as  
12 well, too. There's an entire series of evaluations that  
13 are planned over the next few years, and the next one I  
14 want to focus in on is the fire suppression system in  
15 Buildings 233-H, 234-7H, and the tritium extraction  
16 facility. You've cited this in your opening comments,  
17 that you're committed to a natural phenomenon hazardous  
18 design Category 3. Is that right?

19           MR. ARMSTRONG: That's correct.

20           BOARD MEMBER ROBERSON: And again, I'm just going  
21 to ask you a straightforward question, if you -- you  
22 know, to meet that standard, it requires modifications,  
23 facility modifications. Do you consider those to be --  
24 that to be a feasible direction?

25           MR. ARMSTRONG: Yes, I do. So, so far, to date,

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1 with the combustible material load mapping in progress  
2 right now it's the structural analysis of the building  
3 where we have our independent and licensed professional  
4 engineer evaluating, and then we have the evaluation to  
5 be complete by fiscal year '23, and that should also be  
6 laid forward in the other things that we have  
7 accomplished.

8 BOARD MEMBER ROBERSON: In your review so far,  
9 which of those do you think is the most challenging?  
10 233-H, 234-7H, or tritium extraction facility?

11 MR. ARMSTRONG: So, you know -- so --

12 BOARD MEMBER ROBERSON: You can take it for the  
13 record. That's okay.

14 MR. ARMSTRONG: Well, I think we'll take it for  
15 the record, because it's my inclination to say all of  
16 them. So --

17 BOARD MEMBER ROBERSON: Okay. Thank you, sir. I  
18 think they're all challenging, but probably one is more  
19 challenging than others, so I appreciate you taking that  
20 for the record.

21 MR. ARMSTRONG: You know, I take safety basis  
22 very seriously. As you know, that's my background. And  
23 I'll make sure we're doing the right things. And that's  
24 why I formally approved our action plan, bringing rigor  
25 to that. So I invited your team. I want my team there,

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1 I want SRFO, my M&O partner in the room, because I value  
2 nuclear safety, I know its importance, and public safety  
3 is very important to me. The collocated worker is very  
4 important to me.

5 And so it's -- that's why I hesitated when you  
6 asked which one is important. I think of everybody at  
7 the facility, I think everybody around the facility, and  
8 I think of our environment. And I want to ensure and I  
9 believe, I truly believe that we do have adequate  
10 protection. And so that's why I won't falter on that.  
11 I am very committed to it.

12 BOARD MEMBER ROBERSON: I appreciate that,  
13 Mr. Armstrong, very much.

14 Mr. Summers?

15 VICE CHAIR SUMMERS: Thanks a lot, Ms. Roberson.  
16 The next series of questions are primarily for  
17 Dr. Verdon and for Mr. Armstrong, and they center around  
18 the tritium finishing facility, otherwise known as TFF.  
19 So the first question is for Dr. Verdon, and,  
20 Dr. Verdon, first I'll preface it from a quote from the  
21 September 10th letter, 19 -- or 2019. In the September  
22 10th, 2019 letter from the administrator to the Board  
23 states that, and I quote, "The planned tritium finishing  
24 facility, or TFF, will fundamentally improve safety at  
25 SRS, as DOE and NNSA moves from the aging H area old

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1 manufacturing facility to this new seismically qualified  
2 facility."

3 So, Dr. Verdon, the question is, sir, can you  
4 please explain how in your view the tritium finishing  
5 facility will fundamentally improve safety at the  
6 Savannah River site and address the primary safety  
7 concern of high collocated worker doses given that the  
8 tritium finishing facility will only replace H area old  
9 manufacturing, while most of the tritium work will  
10 continue and the largest amount of the tritium available  
11 for release is actually in Building 233-H. Thank you,  
12 sir.

13 MR. VERDON: Yeah, well, your point taken, but I  
14 think it goes without question that being able to design  
15 the building to modern, you know, safety standards gives  
16 us a tremendous boost on improving the safety of that  
17 facility and what's done within that facility.

18 You know, I agree that, you know, the other  
19 facilities will still be there, but for that facility  
20 and the work done within that facility, there will be no  
21 question that the new building will offer us improved  
22 safety of the activities that goes on in that area, as  
23 well as, again, the seismic safety of the building.

24 VICE CHAIR SUMMERS: Thanks, Dr. Verdon.

25 Ms. Roberson, over to you for the next question.

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1 BOARD MEMBER ROBERSON: Thank you, Mr. Summers.  
2 Mr. Armstrong, given, as we've talked about  
3 already, that there clearly is some safety improvement  
4 from building a new modern facility, it may not displace  
5 the other facilities that create risk, but there  
6 certainly is improvement to be gained. But given that  
7 the tritium finishing facility is not expected to be up  
8 and operational until the 2030s, what is the field  
9 office's plan to improve safety at the operating tritium  
10 facilities in the interim period?

11 MR. ARMSTRONG: All right. Yeah, so thank you  
12 for the question. So there are several upgrades that  
13 are planned or in progress right now for H area  
14 manufacturing. That does include updating the  
15 electrical system, the standby diesel generator  
16 replacement and doing some physical modifications to our  
17 vault fire barrier.

18 BOARD MEMBER ROBERSON: Okay. Thank you.  
19 Back to you, Mr. Summers.

20 VICE CHAIR SUMMERS: Thanks, Ms. Roberson.

21 Mr. Armstrong, the next question is for you as  
22 well, sir. The conceptual safety design report for the  
23 tritium finishing facility identifies that approximately  
24 20 percent of the Material-at-Risk, or MAR, could be  
25 impacted and released prior to the activation of the

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1 fire suppression system for common cause events, such as  
2 a seismic event.

3 Given that the tritium finishing facility is a  
4 new facility, is it true that the strategy includes or  
5 does not include a strategy for tritium confinement?

6 Thanks.

7 MR. ARMSTRONG: Thank you, Mr. Summers, for that.

8 I hear your question. I would like to take that  
9 for the record.

10 VICE CHAIR SUMMERS: Sounds good. Thank you very  
11 much. Appreciate it, Mr. Armstrong.

12 Ms. Roberson, back to you, ma'am.

13 BOARD MEMBER ROBERSON: Thank you, sir.

14 Another question for Mr. Armstrong, and you've  
15 seen some of these questions, because we've communicated  
16 to the Department our view of the new facility. So the  
17 preliminary fire hazards analysis is what I want to  
18 target in on for the tritium finishing facility,  
19 proposed two fire suppression water supplies. One would  
20 be safety class, and the other being the current general  
21 service H area water loop. And so I guess what we're  
22 trying to understand is the thinking, if the new, you  
23 know, qualified or classified safety class water -- fire  
24 suppression supply becomes unavailable, what impact  
25 would that have on the safety of the tritium finishing

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1 facility operations? I.e., would you put the facility  
2 in standby, would you just use the unclassified water  
3 supply for some period of time? What is the thinking in  
4 that this is what is in the preliminary analysis?

5 MR. ARMSTRONG: Ms. Roberson, I'll have to take  
6 that question for the record.

7 BOARD MEMBER ROBERSON: Okay. All right, thank  
8 you, sir.

9 Okay. And back to you, Mr. Summers.

10 VICE CHAIR SUMMERS: Thanks, Ms. Roberson.

11 Mr. Armstrong, another question for you, sir.  
12 The tritium finishing facility preliminary hazard and  
13 accident analysis relies on existing engineering  
14 evaluations that the Board previously raised concerns  
15 about; for example, the Savannah River site aircraft  
16 crash analysis. Given that you are in the early design  
17 process and that this is a new facility, do you plan to  
18 revisit the analysis? Thank you.

19 MR. ARMSTRONG: So as we review the M&O's  
20 submitted documented safety analysis and we develop our  
21 subsequent safety evaluation report, we followed the  
22 requirements in DOE Standard 3014. So we will use that  
23 as the basis for our approval. That's where we would  
24 go. If there's criteria to follow, we'll follow it. In  
25 cases where we need to elevate and get help and talk

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1 things through, we do that, but we follow what's  
2 required by our DOE standards. They ensure adequate  
3 protection.

4 VICE CHAIR SUMMERS: Very good. Thank you very  
5 much, Mr. Armstrong.

6 That ends the line of questioning about the  
7 tritium finishing facility. Ms. Connery, over to you,  
8 ma'am.

9 CHAIR CONNERY: Thanks. So I just want to take a  
10 moment to recap, because we do have new information from  
11 the last conversation we had with you, and don't forget,  
12 COVID was a little bit of an intermission for us. We  
13 were supposed to actually have this hearing about a year  
14 ago, and I know Mr. Armstrong is new, so please do not  
15 be shy about taking questions for the record, because we  
16 know that you haven't been here for all the turns of the  
17 wheel, the same with Dr. Verdon, you weren't in the same  
18 position at that point in time. So we are very  
19 sensitive to that and we don't have complete  
20 information.

21 I believe, actually, that to the acceptance of  
22 those 19 contractor-proposed actions, I believe we  
23 received that 20 minutes ago, according to our Technical  
24 Director. So we're getting new information even as we  
25 conduct this hearing. So I appreciate -- I appreciate

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1 that, but I just want to recap some things that I heard  
2 to make sure that I have them correct. So we have a new  
3 safety basis, which is already steps in the right  
4 direction; however, it's not going to be implemented  
5 until 2025. That does include some SACs, some specific  
6 administrative controls, but those controls also --  
7 which are your near-term compensatory measures from our  
8 point of view, those controls aren't going to be  
9 implemented until 2025 when the actual safety basis is  
10 implemented. So personally, I would say that remains an  
11 area of concern for me, because that -- that is  
12 something that's implementable right away.

13 Of the 19 proposed Savannah River activities, a  
14 lot of those are analyses, and I think if I heard you  
15 correctly, Mr. Armstrong, you said that 14 of those are  
16 completed, and I know that, again, some of those are  
17 simply analyses to see if work is feasible to be done in  
18 the future, but that you are committed at least on the  
19 fire protection side once you have done those  
20 evaluations to proceed along the lines of upgrading  
21 those actual physical upgrades to make sure that there  
22 are engineering controls. And I appreciate the  
23 hierarchy of controls, you want engineering controls  
24 before, you know, in the first instance and then the  
25 specific administrative controls after the fact;

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1    however, in the event that you can't implement those  
2    engineering controls right away, the specific  
3    administrative controls actually do become very  
4    important at the time.

5            So I'm going to pause here just to make sure I've  
6    got the story straight as you understand it, based on  
7    what I think I heard you say over the course of the  
8    hearing so far.

9            MR. ARMSTRONG: Thank you, Ms. Connery, and you  
10   captured them very well. I understand, though, that  
11   some things have been completed in the interim. So I  
12   can take that for the record and get back with you. So  
13   I don't want to leave this hearing with the impression  
14   that we are not pursuing results and moving forward,  
15   because we are. We take it very seriously here at  
16   Savannah River, and I know at headquarters they do,  
17   also. And I work very diligently towards that.

18           That's part of the reason why you saw recently  
19   that we formally approved the plan, because it was  
20   something that I saw when I came here early on that it  
21   was not approved and that we needed to go ahead and  
22   approve it and increase the structure around there to be  
23   sure that we're holding each other accountable. In  
24   fact, that we will be a demanding customer, and we will  
25   hold people accountable also, and that's part of the

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1 reason for that. We are -- as a partner, we are working  
2 towards completing all these actions, and getting the  
3 safety basis implemented in 2025.

4 CHAIR CONNERY: I understand that. I also know  
5 that accidents don't necessarily wait for when we're  
6 done with our evaluations and our implementation, so  
7 that's the space that we're actually worried about. I  
8 do want to appreciate the fact that you mentioned  
9 Standard 3009-2014. I know that the contractor doesn't  
10 always adhere to that because it's not in the original  
11 contract, and that is actually where it states that we  
12 want to make sure that our collocated workers are  
13 protected to a certain standard, and it's not just a  
14 simple measurement for controls, it's actually something  
15 that's necessary to determine whether or not we are  
16 being safe with our workers, or as you pointed out,  
17 Dr. Verdon, you have the authority to accept the risk,  
18 and we just haven't seen any formality in the risk  
19 exception to date. So that would be another piece that  
20 we would be interested in.

21 That being said, the third prong of our  
22 recommendation, as you well know, had to do with -- had  
23 to do with emergency preparedness and response. Because  
24 in the event that you can't prevent or mitigate the  
25 accident scenario and, heaven forbid, the worst thing

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1 happens, you have to be able to respond to it. And this  
2 is where we want to have that conversation about  
3 emergency preparedness and response.

4 So I'm going to ask Mr. Roscetti to talk about  
5 that part of our recommendation, because it's very  
6 specific, and the recommendations related to emergency  
7 preparedness and response programs at Savannah River so  
8 that can be the backdrop of the discussion that we're  
9 going to have on emergency preparedness and response.

10 So, Mr. Roscetti, can I ask you to make that  
11 presentation, and I don't know if you have slides or if  
12 slides are available right now, but you let us know.

13 MR. ROSCETTI: Thank you, Ms. Connery.

14 In Recommendation 2019-2, the Board found that  
15 the tritium facility's emergency preparedness program  
16 had not prepared responses to the full range of credible  
17 accidents in the safety basis and the emergency planning  
18 hazard assessments. The Board and its staff noted that  
19 the chosen drill and exercise scenarios resulted in dose  
20 consequences to victims that were consistently less than  
21 5 rem total effective dose.

22 We also found that the Savannah River site  
23 contractors had not conducted exercises involving  
24 evacuation of a large number of workers due to a  
25 radiological release, nor for related logistical issues,

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1 such as screening for and treating tritium uptake.  
2 Accordingly, the Board recommended that the Department  
3 evaluate the adequacy of the Savannah River site safety  
4 management programs, including the emergency  
5 preparedness and response, and upgrade them as necessary  
6 to ensure that the site can effectively respond to  
7 energetic accidents at the tritium facilities, and that  
8 it can quickly identify and properly treat potential  
9 victims.

10 Following the issuance of Recommendation 2019-2,  
11 the Department's Savannah River operations office issued  
12 a letter of direction to its contractor, SRNS, to  
13 evaluate the emergency preparedness recommendations and  
14 to provide a response on the potential impacts  
15 concerning the site evacuation plan. We heard at the  
16 Board's October 2019 public meeting that the NNSA and EM  
17 field offices would jointly conduct verification and  
18 validation reviews of those actions.

19 SRNS has completed these actions and DOE SR has  
20 verified and approved their closure; however, a number  
21 of followup actions resulting from the SRNS evaluation  
22 still remain. Most notably, the draft site evacuation  
23 and relocation plan has yet to be implemented and  
24 tested.

25 Thank you for the opportunity to address this

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1 important topic.

2 CHAIR CONNERY: Thank you, Mr. Roscetti.

3 And I just want to harken back to a conversation  
4 that we were having earlier this morning about emergency  
5 preparedness response, and I wanted to recognize the  
6 fact that I know that since we issued this  
7 recommendation to today, we've had a minor pandemic that  
8 has affected our ability to do drills and exercises, but  
9 as we discussed earlier, we understand that the training  
10 facility has tried to go forward and conduct a number of  
11 their drills creatively with taking COVID precautions.

12 That being said, there's a lot of complications  
13 to how one would deal with an energetic event at the  
14 tritium facility in terms of emergency preparedness and  
15 response, as we discussed earlier. And that was part of  
16 my question, Mr. Armstrong, with regard to  
17 accountability, was how do you account for all the  
18 people, particularly because you don't necessarily know  
19 where the plume is going to go, where the people are  
20 standing, and whether or not they're sheltering in place  
21 or whether the Pepsi truck driver is traversing the site  
22 at that particular time. So accountability becomes a  
23 challenge when you're looking at emergency preparedness  
24 and response.

25 So my first question is actually to Mr. Budney,

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1 because he looks very lonely over there, because he  
2 hasn't said a lot lately, so we're going to make sure  
3 that we engage you and keep you entertained. So we are  
4 aware that the contractor recently prepared a draft  
5 evacuation plan and relocation plan. Implementation and  
6 testing of this plan are expected to be accomplished  
7 through a number of stages. Obviously, we can't do it  
8 all at once, including a series of drills and exercises.

9 Can you just kind of fill us in on what the time  
10 frame for the stages and when they'll be completed?  
11 Again, I know you might not be able to commit too much  
12 given COVID, and I don't know if that's actually going  
13 to impact your schedule, but could you give us an idea  
14 about that?

15 MR. BUDNEY: Yeah, certainly. I would like to  
16 mention one other thing while I'm thinking of it. We  
17 were talking about accountability and making sure we  
18 knew where everybody is. We do have what we call a  
19 "PAS" system, and I apologize I don't know the acronym,  
20 I can't respond to the acronym, but it's an electronic  
21 system, an app on your cell phone, where we register,  
22 hey, are we teleworking, are we onsite, are we traveling  
23 remotely for something. So we have a pretty good system  
24 by which we have accountability for all the workers  
25 onsite.

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1           And so I just wanted to make sure that you are  
2 aware of that in case of an incident such as this. And  
3 we do exercise that routinely to make sure that we have  
4 the accountability for the workers.

5           The site draft relocation evacuation plan, as you  
6 said, it was completed in June by the contractor. I  
7 have read it. I have some issues that I need to work  
8 out with the team on it, so it's under review within our  
9 staff. We expect, though, to run a first table talk in  
10 August, and then we'll run a series of table talks after  
11 that. This whole back end, all the comments we have  
12 from people, but full table talks and training so  
13 everybody can get familiar with the procedure, and  
14 hopefully, I would say by around the March time frame  
15 next year, we think we'll have that plan approved and  
16 finalized and it will fold into a site drill. And so  
17 that's the schedule right now. That's what we're  
18 looking at for the direction of that.

19           CHAIR CONNERY: That sounds ambitious, and we  
20 look forward to seeing the fruits of that. So just a  
21 couple of followup questions. So part of this process,  
22 we understand the site will need to address logistical  
23 challenges for a hypothetical scenario involving, you  
24 know, potentially a thousand or more individuals that  
25 were exposed. The ability to provide transportation

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1 using site assets to perform mass decontamination on the  
2 site, and to identify some reunification sites if  
3 necessary. So some of these I understand may have  
4 monetary impacts. You know, you're going to have to  
5 spend money to do it, and you might have to establish  
6 new memorandums of understanding with state and local  
7 authorities.

8 So I'm not going to ask you to answer those  
9 questions or solve them right now, but what I want to  
10 understand is have both EM and NNSA field offices  
11 committed to the plan to address these logistical  
12 challenges? And again, I know you haven't formalized it  
13 yet, but what is your sense of that at the moment?

14 MR. BUDNEY: I think we need to test the plan  
15 first to determine what the size of those logistical  
16 challenges will really be, because as you know, we do  
17 have a good meteorological system that runs all the time  
18 down here that's run by the lab and it's folded right  
19 into the EOC. So we can quickly discern in an event  
20 where the plume is and who needs to get evacuated and  
21 what the magnitude of potential contamination might be  
22 based on how you evacuate people and then determine what  
23 the occurrence is and how we get those people out,  
24 whether we can have them, you know, evacuate in their  
25 own vehicles or if we've got to muster some particular

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1 location and evacuate them in mass in some other matter.  
2 So we still have a number of issues that we've got, but  
3 we'll work jointly with the NNSA field office here to  
4 determine what that -- what those things all look like  
5 going forward.

6 CHAIR CONNERY: So that dovetails into my next  
7 question, which is that since a lot of the accidents and  
8 errors aren't limited to NNSA or EM, you're kind of  
9 married at the site together, has the NNSA field office  
10 or will they review the plans and the -- and if so, does  
11 NNSA accept the conclusions of the EM field office?

12 MR. BUDNEY: I would say somewhat differently.  
13 It would be a joint conclusion by the NNSA field office  
14 and our office and what that evacuation plan will look  
15 like. We're generally responsible for, you know, if  
16 it's a hurricane, we have an evacuation plan for a  
17 hurricane, and we're adopting portions of that, because  
18 we -- the security forces already have a good traffic  
19 management scheme.

20 A little different during a casualty of this  
21 sort, than you would use during a hurricane. A  
22 hurricane, you know ahead of time, days ahead of time,  
23 when you've got to get out and you can have a set  
24 schedule for who leaves when. Here, it's a little more  
25 dynamic, whoever is in charge of the emergency

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1 management at the point of the casualty will have to  
2 determine what's the route and which offices or which  
3 buildings, facilities are to evacuated first.

4 And so we'll get together with, as we do  
5 regularly, with the field office here and we'll sit down  
6 jointly and determine, assuming for the tritium sort of  
7 events, how that plan will work for their particular  
8 events, and we'll take care of figuring out how the plan  
9 works for all of our facilities, our own facilities,  
10 too.

11 And that will have to continually evolve as we go  
12 on. You know, it's a -- there are other facilities that  
13 the NNSA may build there and we'll have to incorporate  
14 those scenarios in there, too. So it will be a living  
15 document as we go on and figure out how to adopt it to  
16 each situation.

17 MS. CONNERY: So when you do your table talks and  
18 any drills or exercises, will you do them jointly?

19 MR. BUDNEY: We always do them jointly. There's  
20 always representatives. When we staff up at the site  
21 emergency drill, both us and NNSA are in the EOC  
22 together to make sure all the facilities are  
23 incorporated.

24 CHAIR CONNERY: Thank you.

25 Ms. Roberson?

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1           BOARD MEMBER ROBERSON: Thank you, Ms. Connery.  
2 I really just have one final question in this area, and  
3 I think it's to you, Mr. Armstrong, but I invite anybody  
4 else to chime in. And we asked this question in the  
5 public meeting in December of 2019, and there was a  
6 little bit of confusion, but we understand, and it was  
7 taken for the record, and I understand the net result  
8 was no, this hadn't happened.

9           And so given that we don't disagree that there  
10 needs to be improvement to the risk to the worker and  
11 the collocated worker, and the tritium enterprise, and  
12 that whether formally or informally, the plan is that  
13 NNSA has and will continue to accept some degree of risk  
14 above what it would normally accept for operations, have  
15 you -- has the contractor or is there a plan for the  
16 contractor to conduct any field drills or exercises  
17 involving scenarios in which one or more victims receive  
18 greater than 5 rem total equivalent dose from tritium?

19           And I ask that in light of actually I think it  
20 was what Mr. McConnell said. You guys are accepting  
21 this risk based upon the experience and training of the  
22 workers, and so, obviously, you have to ensure that the  
23 workers are prepared to respond to what could be an  
24 event of that magnitude.

25           So is there a plan? We're not aware that it's

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1 been conducted, but is there a plan to conduct such a  
2 drill?

3 MR. ARMSTRONG: Ms. Connery, I have not seen the  
4 titles of all the drills that we've conducted in FY '20  
5 and to date in FY '21. I do not know if there is one  
6 specifically for an individual who received greater than  
7 5 rem for a dose equivalent; however, I can get that for  
8 the record and follow up.

9 MR. BUDNEY: If I can add in, we are drafting  
10 that plan right now. That is one in the works to cover  
11 this.

12 MR. ARMSTRONG: Thank you.

13 MR. BUDNEY: We don't have it yet, but it is  
14 moving forward.

15 BOARD MEMBER ROBERSON: Thank you both. I just  
16 wanted to make sure you understand the context in which  
17 we're asking it. Okay. Thank you. And thank you,  
18 Mr. Budney, I appreciate that. We look forward to  
19 seeing it when you guys get that. Thank you.

20 CHAIR CONNERY: I'm sorry, I was going to say, I  
21 was going to add that along with the greater than 5 rem,  
22 also mass casualty incidents are also going to be a  
23 challenge for the site, and so the more you drill and  
24 exercise those, I think the more comfortable we all  
25 would be.

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1 BOARD MEMBER ROBERSON: Thank you, Ms. Connery.  
2 I think I'm done.

3 CHAIR CONNERY: So I want to go back to  
4 Mr. Summers to see if he has any additional questions  
5 for the panel or any commentary that he would like to  
6 make at this time.

7 VICE CHAIR SUMMERS: Thanks, Chair Connery.  
8 Ma'am, I do not have any further questions, other than  
9 those already asked. I appreciate the responses, and I  
10 don't have any comments at this time. Thank you very  
11 much.

12 CHAIR CONNERY: Thank you.

13 Ms. Roberson, do you have any additional  
14 questions?

15 BOARD MEMBER ROBERSON: No. I just can't wait to  
16 get to Savannah River. Thank you all for your insight  
17 and your response to the questions, and I'm sure because  
18 this is an area you're interested in and we're very  
19 concerned about, the dialogue will continue. Thank you.

20 CHAIR CONNERY: Thanks, Ms. Roberson. So we  
21 normally don't do this, and I'm going off script again,  
22 which is going to cause apoplexy in my building, but I  
23 do want to give an opportunity for Dr. Verdon to make  
24 any closing remarks that you want to make because, first  
25 of all, I appreciate the fact that you were willing to

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1     come to the hearing today, and I understand that we're  
2     in this very odd time frame where you're in an acting  
3     position, but you are responsible for the health and  
4     safety of the workers and the public around Savannah  
5     River site, so it was really fortunate for us for you to  
6     not only be here to answer questions, but to hear the  
7     questions that we're asking and the answers that are  
8     being provided.

9             So I just wanted to tip it over to you for a  
10     moment to see if you would be willing to or wanted to  
11     add any additional comments at this point in time.

12            MR. VERDON: No. Again, I think it would just be  
13     reiterating what you heard, that our current efforts for  
14     continuous improvement align with addressing a number of  
15     your concerns, and I think we're committed, as is  
16     evident from the responses, to that going forward. You  
17     know, and then I believe we have both near-term and  
18     long-term solutions that we're trying to work into the  
19     system while still continuing to deliver on the mission.  
20     And we'll continue to do that as transparently and  
21     openly as possible.

22            CHAIR CONNERY: Thank you, sir. So at this point  
23     in time, I would like to turn to my Board members for  
24     closing remarks for this session, because I've lost my  
25     place. Oh, sorry, Mr. Summers?

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1           VICE CHAIR SUMMERS: Thanks, Ms. Connery. I have  
2 enjoyed the opportunity to hear the responses and  
3 certainly I better understand the perspectives and the  
4 views that have been expressed, and I appreciate the  
5 work that you and your teams and all of the leaders in  
6 the field do every day. So thank you very much.  
7 Nothing further, Ms. Connery.

8           CHAIR CONNERY: Thank you, Mr. Summers.  
9 Ms. Roberson?

10          BOARD MEMBER ROBERSON: Thank you, Ms. Connery,  
11 and thank you to our participants. We definitely did  
12 learn some things today from you as to where you are  
13 progressing. We appreciate it. Obviously, as I said,  
14 the dialogue will continue. We understand the  
15 importance of the mission you're executing and we want  
16 to be there to make sure we can provide you any advising  
17 counsel that will improve your ability to execute that  
18 mission and protect your workers along the way. So we  
19 look forward to continued dialogue as you make progress  
20 both on the new facility, and implementing the DSA and  
21 completing the other actions. Thank you for  
22 participating, and until we see you the next time.  
23 Thank you.

24          CHAIR CONNERY: So I just want to close. I know  
25 we have another section after this, but I just, I did

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1 want to close on this section because it is directly  
2 related to a recommendation that the Board issued, and I  
3 just reiterate the fact that our statute gives us the  
4 opportunity to make the determination as to whether or  
5 not we think that the public health and safety is at  
6 risk, and the Board believes that public health and  
7 safety is at risk. The Department has -- you know,  
8 that's your responsibility to protect public health and  
9 safety and you can choose to accept or reject our  
10 recommendations, but I do feel a lot more comfortable  
11 now that the folks at the site are very mindful of the  
12 safety of the collocated worker and are working toward  
13 addressing the issues that we've raised.

14           Again, we have new information that we will be  
15 processing ourselves to evaluate how we feel about the  
16 situation at the moment. I would still say we have  
17 concerns about compensatory measures that perhaps need  
18 to be formalized now before 2025 in order to assure the  
19 public health and safety in the near term. I do  
20 recognize the challenges that COVID has caused with  
21 regards to the emergency preparedness and response  
22 situation. We've got a new set of people looking at  
23 these issues right now and always fresh eyes bring fresh  
24 perspectives, so I hope that the folks that are new to  
25 the administration and the folks that are new to the

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1 Savannah River site review what our staff has worked on  
2 and what the Board has said, and take that to heart, as  
3 you move forward, but we do appreciate the dialogue, and  
4 I think as Ms. Roberson alluded to, we are very eager to  
5 come down to Savannah River, and you might have some  
6 observers to some of your drills and exercises in the  
7 months to come.

8 So with that, I do want to break for now, because  
9 we have one more session to go in the hearing. So we  
10 are going to take a 15 -- it would be a 20-minute recess  
11 and come back at 2:45 for the conclusion of the hearing.  
12 So we will see you back here at 2:45. Thank you for  
13 your participation.

14 (Whereupon, there was a recess in the  
15 proceedings.)

16 CHAIR CONNERY: Welcome back, everybody. At this  
17 time I would like to reconvene our hearing for session  
18 2. Our goal for this panel is to discuss the adequacy  
19 of current EM and NNSA staffing to conduct oversight  
20 missions. This will include discussion of shortages in  
21 both facility representation -- representative positions  
22 for existing facilities and engineering positions  
23 responsible for reviewing safety bases and performing  
24 safety system oversight, and the approach of delegating  
25 inherently federal functions to the contractor as a

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1 substitute for federal oversight.

2 This will also include a discussion of future  
3 technical staffing needs as new site missions ramp up.  
4 For example, the Savannah River plutonium processing  
5 facility operations and the surplus plutonium  
6 disposition.

7 Dr. Verdon, Mr. Armstrong and Mr. Budney, with  
8 the support of Mr. McConnell, are all on our panel once  
9 again for this session. Joining them will be our EM  
10 representatives from this morning, Mr. William White as  
11 the Acting Assistant Secretary of the Office of  
12 Environmental Management, and finally, in the supportive  
13 role, we also have Mr. Greg Sosson, the Deputy Assistant  
14 Secretary for Safety, Security and Quality Assurance.

15 At this time, I would like to turn the lines of  
16 questioning over to Mr. Summers to begin.

17 VICE CHAIR SUMMERS: Thank you very much, Chair  
18 Connery.

19 To begin today's session, we'll start with a  
20 discussion of current staffing levels for key federal  
21 oversight positions at the field offices, specifically  
22 facility representatives and safety system oversight  
23 engineers, who are also, of course, known as SSOs.  
24 Facility representatives serve as the primary DOE point  
25 of contact for each facility and are responsible for

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1 monitoring the safe and efficient performance of all  
2 work. SSOs are responsible for monitoring, accessing  
3 and overseeing the system health of vital safety  
4 systems. In addition, SSOs generally participate on  
5 safety basis review teams, providing necessary reviews  
6 of the safety basis documentation.

7 Mr. Armstrong, sir, we have received data on the  
8 current staffing levels for the facility representatives  
9 and SSOs at the NNSA field office and I now request that  
10 Exhibit 3 displaying that information be put on the  
11 screen. And I see it's displaying. Thank you.

12 Mr. Armstrong, sir, as you can see from the  
13 table, it appears as though the field office is fully  
14 staffed and qualified; however, based on the data from  
15 March of 2020, the field office had five facility  
16 representative positions filled and three fully  
17 qualified. Given the increased operational tempo at  
18 your facilities, can you discuss the justification for  
19 removing a facility representative position? Thank you.

20 MR. ARMSTRONG: Good afternoon, Mr. Summers.  
21 Thank you for the question.

22 I saw on your chart that you had listed as of  
23 March 2020 that we had, indeed, listed five facility  
24 representatives. Just given this information and  
25 looking at the staffing analysis that was conducted

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1 during that period, it was actually identified needing  
2 four facility representatives, not five. I'm not sure  
3 if perhaps there was overcounting as five. Our staffing  
4 analysis shows that we need four qualified facility  
5 representatives and that's what we have onsite right  
6 now, four qualified.

7 We continue to evaluate need. As you're familiar  
8 with, DOE standard does require us to perform facility  
9 representative staffing analysis. We recently conducted  
10 a -- or Jim McConnell's group at NA50 recently conducted  
11 a -- their assessment of our office and that was one  
12 issue that we need to get back up to date, conducting  
13 our staffing analysis. However, I did spearhead with my  
14 operations manager to determine whether this is an  
15 appropriate amount of facility representatives that we  
16 need to have onsite, and so right now, the number is  
17 four, and we do have four fully qualified.

18 I can carry the four, too. I want to know that  
19 the staff analysis also looked at our SSOs, our safety  
20 system oversight engineers, to be sure that we have the  
21 right number there in addition. So that analysis showed  
22 that we also needed two, and so we do have that. I  
23 carry forward to the safety analysts, our nuclear safety  
24 specialists, I also carry it over to health physicists,  
25 industrial hygienists, it was all part of our oversight,

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1 and I determined that we have adequate staffing right  
2 now for operations that we're doing at our tritium  
3 facilities.

4 VICE CHAIR SUMMERS: I understand. And given  
5 that the operations tempo is expected, I think, I  
6 believe, to increase, do you continue to review and  
7 update that assessment on the personnel needs and do you  
8 expect that you may need some additional personnel in  
9 the future with the additional workload?

10 MR. ARMSTRONG: The answer to that question is  
11 yes, especially as we grow our mission to include SRPPF,  
12 the plutonium production activities, we will indeed have  
13 to increase the number of facility representatives and  
14 the safety specialists and so on. I think the staffing  
15 analysis is something that we'll do on a frequent  
16 schedule and we will pay very close attention to that.  
17 It's very important to me that we have the right number  
18 of staff doing our oversight, especially our technical  
19 oversight out there in the field.

20 VICE CHAIR SUMMERS: This is a follow-on, and it  
21 touches on your answer, so thank you. The Board knows  
22 that the site is currently preparing for the proposed  
23 Savannah River plutonium processing facility mission as  
24 well as the planned tritium finishing facility we talked  
25 about in the last session. The mission work at Savannah

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1 River plutonium processing facility is expected to take  
2 a significant number of contractor employees to support,  
3 no doubt.

4 Can you discuss your future anticipated federal  
5 staffing needs and what steps you're currently taking to  
6 ensure that you do have the appropriate staffing levels  
7 for these missions and for these facilities in the  
8 future? Thank you.

9 MR. ARMSTRONG: Yes, Mr. Summers. I'm actually  
10 engaged with headquarters, Dr. Verdon and his team, at  
11 how we can best staff strategically up as our mission  
12 increases. We need to do it in a fashion that does not  
13 create chaos, but instead to bring people in at the  
14 appropriate level and amount of time. It does take time  
15 to train and qualify folks. We're adding a plutonium  
16 mission, the plutonium mission is a different hazard,  
17 different than tritium, and so it takes time to train  
18 and qualify and get that experience necessary.

19 Those are all things I consider as I look forward  
20 to increasing our organization and its technical  
21 capabilities, but it's not something that I do in a  
22 silo. I engage with headquarters, my human resources  
23 organization, our staffing planning and resources as we  
24 plan for future fiscal years to be sure that we are all  
25 in alignment and we're putting the best resources where

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1 we need them. I do see us increasing in our technical  
2 staff, also our contracting staff, my emergency  
3 preparedness staff, my security staff, all such.

4 So there's a bright future for here at Savannah  
5 River, you know, and I'm really excited about it. And  
6 we're going to bring the people in with the right  
7 momentum. I'm not going to go from 38 people one day to  
8 125 the next day. We'll do it right, and as we  
9 increase, we'll start bringing more people in and get  
10 some training and qualified.

11 VICE CHAIR SUMMERS: Thanks a lot, Mr. Armstrong.  
12 I appreciate your answer.

13 Ms. Connery, ma'am, over to you, ma'am.

14 CHAIR CONNERY: Thank you. I have a similar line  
15 of questioning for Mr. Budney, and then I'm going to ask  
16 my staff to put up Exhibit 4, which will look somewhat  
17 familiar to you. So we got data on the current staffing  
18 levels for fac reps -- I'm sorry, facility  
19 representatives and SSOs at the EM field office as well,  
20 and that's the data that I'm displaying on the screen  
21 right now. So based on this data, the field office only  
22 has a few vacancies, and you talked about that earlier,  
23 and how that you've been able to qualify some of your  
24 newly hired personnel.

25 And we understand that there have been challenges

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1 in the past in both hiring and retaining key oversight  
2 personnel for a number of reasons. I think you  
3 mentioned this morning that you have direct hiring  
4 authority, which I personally wasn't aware of, but I  
5 also know that you have colleagues over at NNSA  
6 sometimes poach some of your staff members. So could  
7 you just give us an idea of your plans going forward to  
8 address the retention challenges that you may face and  
9 to make sure that you are fully staffed and remain fully  
10 staffed with experienced personnel to perform safety  
11 oversight missions.

12 MR. BUDNEY: Sure. We use all the incentives  
13 that we can to get new people hired to fill these  
14 positions and try to stay aware of when people are going  
15 to retire. So, you know, we have session -- recruitment  
16 bonuses; we can provide moving incentives when people  
17 come in. There's a possibility to repay student loans,  
18 all those sort of things we've used, especially for the  
19 facility representatives. They normally come in as  
20 GS-13s and can get promoted to GS-14 upon qualification.  
21 So we use all those sort of mechanisms to get those  
22 folks on board.

23 And then we do -- you know, some focused  
24 recruiting, too. Clearly we rely on the Navy folks to  
25 come on board, which is great, because they come well

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1 qualified, experienced, and we get them trained up  
2 pretty rapidly. So we concentrate on that.

3 And we keep those folks at the top of our  
4 priority list, too, where we have vacancies, because as  
5 I think was mentioned earlier by headquarters, you know,  
6 the HR system can only handle so many requests at one  
7 time, so we carefully prioritize which positions we're  
8 going after so we can get those positions filled as soon  
9 as we can.

10 And to be clear, personnel move back and forth in  
11 both directions between NNSA field office and our field  
12 office, including mine, a chief engineer I recently  
13 re-acquired from NNSA.

14 CHAIR CONNERY: Yes. Reacquired, I like that  
15 terminology. So I just want to, on the staffing  
16 decisions, are those things that you can make at your  
17 level, do they have to go up to headquarters? Is your  
18 staffing process in state or do you have to go back and  
19 do a mother-may-I to Mr. White's organization?

20 MR. BUDNEY: Yeah, so a recent change there, and  
21 Mr. White may be able to give more details on this, if  
22 needed, but we went through a process of getting  
23 staffing plans approved throughout the department. EMS  
24 were recently approved, so I now have a staffing plan  
25 which I believe is going to make the process a little

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1 easier in that I don't have to go back as long as I'm  
2 working within the approved built structure that's in  
3 that staffing plan, that I can get right to HC to get  
4 those positions refilled.

5 And as another benefit of that staffing plan  
6 being approved, we got an increase of about 11 positions  
7 over what we were -- or four available positions that we  
8 could fill, so we will be working to fill out that  
9 structure.

10 CHAIR CONNERY: So I'm sorry, you trailed off.  
11 You said 11 new?

12 MR. BUDNEY: Eleven new positions that we didn't  
13 have previously, right?

14 CHAIR CONNERY: All right. So, Mr. White, do you  
15 want to comment on the staffing plans and that new  
16 process and how it's all working?

17 MR. WHITE: Well, I mean, it -- we sort of just  
18 finished the effort, so I'll defer on how it's working  
19 until we get a little bit of runtime with that, but over  
20 the past few months, we have looked across the entire EM  
21 organization and built a bottoms-up staffing plan  
22 looking at position-by-position needs for the entire EM  
23 enterprise across, you know, the sites and headquarters,  
24 and I just recently signed off on a finalist of billets  
25 that cover the entire enterprise, and the hope is that

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1 we can use that list of preapproved billets to  
2 streamline the hiring process going forward because a  
3 lot of the back and forth and paperwork in terms of  
4 getting billets established and JDs established and that  
5 sort of thing, and so having that all laid out up front  
6 and authorized up front should help our different  
7 offices engage the hiring process more efficiently going  
8 forward.

9 CHAIR CONNERY: Do you have a Navy quota? Just  
10 asking.

11 MR. WHITE: I do not have a Navy quota, but the  
12 Navy is, as always, a great source of personnel for the  
13 Department, including you.

14 CHAIR CONNERY: I was just making that reference  
15 to something Mr. Budney said earlier, so as an Army  
16 wife, I'm a little prejudiced against the Navy folk.

17 So, Mr. Armstrong, the Board -- wait, I'm on the  
18 wrong question. Sorry about that. So, Mr. Budney, the  
19 Board is aware of site preps for construction activities  
20 for the surplus plutonium disposition product that has  
21 already started. Can you talk about how you've  
22 allocated oversight resources to ensure construction  
23 workers perform safely and any plan changes to future  
24 staffing levels needed to provide oversight for the  
25 increased mission work?

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1           MR. BUDNEY: Yeah, so we share that  
2 responsibility for construction of the capability with  
3 NNSA. NNSA runs the project, and so they're responsible  
4 for execution of that project actually in accordance  
5 with the requirements. We own the facility in which  
6 it's being built, so I own the documented safety  
7 analysis that goes along with that facility. We don't  
8 have an increase in the facility representatives planned  
9 for that because it's all still within the same  
10 facility, it's not a significantly extra burden on the  
11 facility -- personnel doing that kind of work in there  
12 because it's right there inside the facility. So that's  
13 basically the division of responsibility.

14           We're responsible for the building and all the  
15 safety stuff, the safety of the contractors who are  
16 working in there and the construction personnel; and  
17 NNSA is responsible to ensure that the facility gets  
18 constructed in accordance with the requirements they  
19 have for it.

20           CHAIR CONNERY: Understood. Thank you.

21           I'm going to turn the questioning over to  
22 Ms. Roberson for the next set of questions.

23           BOARD MEMBER ROBERSON: Thank you, Ms. Connery.

24           Dr. Verdon and Mr. White, the Board staff is  
25 currently reviewing DOE oversight complex-wide. I hope

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1 you knew that. That has been going on for a while, so I  
2 am going to assume you are already aware of that. One  
3 of the particular areas that the staff is analyzing is  
4 the practice of utilizing DOE headquarters or resources  
5 from other field offices to supplement field office  
6 personnel. Every year we understand each field office  
7 develops a plan for their oversight activities, and this  
8 includes identifying which oversight activities may  
9 require additional resources either from DOE program  
10 offices or other field offices.

11 In some instances, using outside resources  
12 obviously provides a beneficial use in that it provides  
13 specialized expertise in a particular area, or it  
14 provides an objective outside perspective; however, in  
15 some cases, the request for outside resources is made  
16 due to staffing shortages in the field office or a lack  
17 of necessary expertise, for instance, something we've  
18 seen is a field office has no fire protection expertise.

19 These shortages could impact DOE's ability to  
20 routinely identify and address safety issues when  
21 outside resources are not present or handily available.  
22 So I'll go to you first, Mr. White. Can you just  
23 discuss or describe for us how you evaluate whether to  
24 permanently augment field office staffing with  
25 additional resources when headquarters assistance is

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1 requested.

2 MR. WHITE: So just a couple of points. One, I  
3 would agree with the point you made that there are  
4 benefits to doing this, right? They're certainly  
5 sharing lessons learned. Sharing best practices across  
6 the enterprise is a great thing to do. There are also  
7 skill sets and specialties where perhaps we don't need a  
8 full FTE equivalent at a given site and you can  
9 essentially share and pull a resource and do this more  
10 effectively.

11 But there are cases where what you have is  
12 essentially a staffing shortage at a given site, and  
13 what we're doing is compensating for it, and in that  
14 situation, you don't want to have linger long term; you  
15 want that to be a short-term thing where you pull in  
16 those resources that you need to compensate because  
17 that's what you need to do. But long term, the real  
18 plan should be to address the staffing shortage, and  
19 we've certainly seen that enough at a couple of  
20 different sites.

21 So it really depends on whether we expect it to  
22 be long term or expect it to be short term. Some amount  
23 of shared resource utilization I think is in the best  
24 interest of the Department, both from the perspective of  
25 sharing information and lessons learned, as well as more

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1 utilization of the resources, but you're right, we do  
2 occasionally have situations where a particular type of  
3 expertise is deficient at a given site and that we want  
4 to make as short term as possible.

5 BOARD MEMBER ROBERSON: Thank you, sir.

6 Same question to you, Dr. Verdon.

7 MR. VERDON: So I would just echo what Mr. White  
8 said. I think it's just a similar approach that we take  
9 within NNSA and for the same reasons that he  
10 articulated.

11 BOARD MEMBER ROBERSON: Can I just ask one  
12 followup question, and I'll go to you, Mr. White. Is  
13 there specific what I call technical expertise that's  
14 needed that you're having trouble actually securing that  
15 you know you need in the field offices?

16 MR. WHITE: So, I mean, I'll defer to Mike to  
17 correct me or Greg to correct me if I point this out,  
18 but the -- or screw this up, but there are some areas of  
19 expertise where the demand nationally is pretty high.  
20 Things like fire protection engineers have historically  
21 been difficult to attract and obtain, and I think we  
22 continue to see that, but that's always been a bit of a  
23 challenge.

24 The same thing with there are specialties where  
25 the training within the Department takes an extended

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1 period of time, and so building up the cadre of people  
2 that you need in that area can be challenging. I think  
3 nuclear criticality safety is a good example of that.  
4 Another good example of that is our safety specialists,  
5 our nuclear safety specialists, the folks who evaluate  
6 and review our document and safety analyses across the  
7 complex. That's another specialty that requires a bit  
8 of time to really train and develop. And so, you know,  
9 we have to monitor that. It's not a thing that you can  
10 go out and easily find.

11 Greg, any other comments?

12 MR. SOSSON: Yeah, I agree, and I think, you  
13 know, when it comes to, you know, FRs, the folks that  
14 come straight from the Navy, and I'm an Army guy, too,  
15 but the folks that come straight from the Navy usually  
16 can come up to speed in that role pretty quickly, but,  
17 you know, my specific watch area is safety basis  
18 engineers right now because that's, you know, a little  
19 bit of an art form and you can't pull somebody right out  
20 of school and get them up to speed real quickly. It  
21 takes a fair amount of experience. And I think our  
22 contractors are seeing that, also.

23 But back on the, you know, use of support  
24 services contractors, you know, we've had numerous  
25 examples where we've brought in, you know, retired

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1 folks, be it headquarters or field, retired FRs that  
2 help mentor and bring the next generation up to speed.  
3 So we are trying to, you know, use that angle for  
4 developing our in-house workforce. Thanks.

5 BOARD MEMBER ROBERSON: Thank you both. I'll ask  
6 you, Dr. Verdon, if you wanted to add anything, although  
7 you seem to have little trouble securing resources, but  
8 is there any specific area of expertise that your  
9 enterprise struggles to secure and retain?

10 MR. VERDON: They're similar to actually what  
11 Mr. White said in terms of fire. You know, there's  
12 those key competencies that sometimes we have difficulty  
13 in. So we continue to strive to bring them on, but  
14 there are those few and that's kind of where the sharing  
15 comes to be the benefit.

16 BOARD MEMBER ROBERSON: Thank you. Thank you  
17 both.

18 Back to you, Ms. Connery.

19 CHAIR CONNERY: Thanks. So this is for  
20 Mr. Armstrong, Mr. Budney, and this is about the SSO  
21 program. As you know, the program relates to a Board  
22 recommendation recognizing the need for dedicated field  
23 office personnel to perform oversight of vital safety  
24 systems. Originally, SSO personnel were assigned  
25 specific systems, but over time, we've noticed that

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1 there's increasing variability across the sites as to  
2 how they use SSO personnel.

3           Additionally, the SSO personnel are also used on  
4 the safety basis review teams, and this kind of harkens  
5 back to a question that Ms. Roberson asked in an earlier  
6 panel. So, Mr. Armstrong, can you talk about  
7 specifically how your SSO personnel that you know of --  
8 again, I recognize you're relatively new to the site --  
9 how they provide regular oversight of the reliability of  
10 the safety systems apart from their engagement of  
11 reviewing any safety basis documents, especially given  
12 that your field office has only two SSO specialists.

13           MR. ARMSTRONG: Right. Thank you, Ms. Connery.

14           So my SSOs will go out in the field and do  
15 walkdowns of the systems, and not just solely looking at  
16 it from a nuclear safety perspective or TSR review or  
17 part of a safety basis review team. They perform their  
18 duties as an SSO looking at systems, doing independent  
19 verifications, looking at system performance. That's  
20 what my SSOs do.

21           CHAIR CONNERY: I think the nature of my question  
22 was -- and I'm having a hard time hearing your answer,  
23 just because I think there is some static on the line,  
24 but the nature was given the fact that they spend a lot  
25 of their time on the safety basis reviews, and they are

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1 not necessarily dedicated to certain systems, from your  
2 viewpoint, do they have adequate time to actually have  
3 operational knowledge and thorough interaction with the  
4 specific systems that they're supposed to be overseeing?

5 MR. ARMSTRONG: Yes, they do. My SSOs are not  
6 just dedicated to the safety basis review team, they're  
7 actually evaluating their systems, looking at system  
8 performance, ensuring that the required maintenance is  
9 being done, they're looking at the -- at the health in  
10 the system, ensuring its reliability. So my SSOs are  
11 not just looked at for safety basis reports; they're a  
12 much more important role than just that. That's why we  
13 have them.

14 CHAIR CONNERY: I concur with the original intent  
15 of that position. We just wanted to make sure that that  
16 is still the case operationally, as we've seen kind of  
17 diverse approaches across the fields as the staff has  
18 been conducting their oversight reviews.

19 So, Mr. Budney, the same question for you,  
20 recognizing that your field office has only 12 SSO  
21 specialists on board against potentially 18 positions,  
22 can you talk about your SSO specialists and how they  
23 provide regular oversight of the reliability of the  
24 safety systems, particularly given the number of  
25 vacancies?

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1           MR. BUDNEY: Sure. It is a challenge right now  
2 because we do have a shortage, and as I said before, we  
3 have about 44 percent are qualified. So we'll be in a  
4 lot better shape once we get those folks to complete  
5 their qualifications, but they do also perform the vital  
6 safety system reviews for us and they walk down the  
7 systems, as Mr. Armstrong said his folks do.

8           So the folks who are qualified are very  
9 knowledgeable of their systems and very good at doing  
10 those reviews, but it is a challenge right now to get  
11 the reviews done on the schedule we would like to get  
12 them all done on, because of that shortage of personnel.  
13 But again, those kind of folks are at the top of our  
14 list for acquiring more replacements and we're working  
15 hard on getting them all qualified so -- to get back up  
16 to where we should.

17           CHAIR CONNERY: Thank you.

18           So our next question is back over to you,  
19 Ms. Roberson.

20           BOARD MEMBER ROBERSON: Thank you, Ms. Connery.

21           And the next set of questions are for you,  
22 Mr. Armstrong. Obviously anybody else is invited to  
23 chime in if they have contributions to make. Your  
24 office recently transmitted a letter of concern to  
25 Savannah River Nuclear Solutions, I think it was on

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1 April 4th of this year, noting concerns of recent  
2 conduct of operations events at the tritium facilities  
3 dating back to January of this year. Some of these  
4 events included procedural compliance issues, breach of  
5 radiological barriers, and technical safety requirements  
6 among them.

7 These events followed a period of relatively  
8 strong operational performance. The contractor, in  
9 response, and by the way, we applaud the action your  
10 office took, even though you had just started. So I  
11 don't know if we give you credit or your predecessor  
12 credit, but it was the appropriate action to take.

13 The contractor recently revised their performance  
14 improvement sustainability plan, which had been around  
15 for a while anyway, with lots of corrective actions to  
16 address these issues. Now, I guess I would like for you  
17 to discuss, if you can, what you believe led to this  
18 negative trend and your evaluation of the corrective  
19 action plan they've provided to you.

20 MR. ARMSTRONG: Thank you, Ms. Roberson.

21 So you're correct, we did transmit a letter over  
22 to Savannah River Nuclear Solutions about the trend that  
23 we saw in operational performance. It did concern us.  
24 That letter did not go over as an action or third order  
25 defense, but I had a serious conversation with the vice

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1 president of tritium operations there about we need to  
2 get better in conduct of operations. You do a lot of  
3 great work with extractions, but we can't let poor  
4 con-ops overshadow the great work that you're doing.

5 When they submitted their initial corrective  
6 action plan, we did not accept it immediately, because  
7 it wasn't specific. It didn't have some things that  
8 were actionable. And so we had another conversation  
9 with SRNS to get back on track. I think they sent us a  
10 plan that would get approved -- it's referred to as --  
11 titled the performance improvement sustainability plan.  
12 So this is something that we've been working with SRNS  
13 quite a bit. We are giving them the elbow room to do  
14 what's needed to be done, but we're watching them very  
15 closely. As a good M&O partner, that's also demanding  
16 and we want results.

17 As I talked to the organization at all levels,  
18 I'm a manager that walks around quite a bit. I want to  
19 know the organization both on the federal side and on  
20 the M&O side. I've seen investment by SRNS with their  
21 team. They're talking about the importance of procedure  
22 adherence; they're talking about if they have to raise  
23 an issue, they can escalate it. They talk about the  
24 importance of having the right mindset when you're doing  
25 the work. And so those are the things that SRNS is

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1 investing in, and it's beginning to produce some good  
2 results.

3 I like that they're not just checking the box  
4 saying, more training, or another flavor of the day, but  
5 instead they're investing in the workforce because they  
6 recognize that we have a workforce that's a mixture --  
7 young, middle and older -- and that we need to get  
8 everybody on the same page. We have a vitally important  
9 mission, and we need to execute it safely and in  
10 accordance with our very high con-ops standards that the  
11 NNSA has in this area.

12 We've also engaged with -- my organization has  
13 also engaged all new employees that come over to SRNS --  
14 come over to the tritium facilities, contractor and fed.  
15 They talk about the importance of our mission, the  
16 importance of conduct of operations, doing things right,  
17 procedure adherence. We talk about being very  
18 transparent, open and honest. If you come across a  
19 procedure that can't be executed, go ahead and pause  
20 work, let's get it fixed. If you did have a -- if you  
21 did not follow procedure, do not try to hide it, let's  
22 go ahead and work through it.

23 So while we did have a few upticks, it was the  
24 result of transparency and increased understanding of  
25 wanting to do the right thing. And so I like our

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1 trajectory, because I see -- I see ownership at all  
2 levels of the organization, so I am -- I'm confident  
3 right now we're doing the right things.

4           And so we do meet routinely with the -- with the  
5 M&O about performance. I take opportunities to write  
6 notes to the employees on the SRNS side or when they  
7 catch small oil leaking from a diesel generator, for  
8 example, I will send -- I will write a little note on  
9 the back of my business card, thank you for a great  
10 catch. So my organization is really engaged with SRNS  
11 to be successful in this.

12           We realize our mission is very important. We  
13 want to conduct it very safely, and we are a partner  
14 with SRNS in improving how work is being conducted. I  
15 can't stress it enough, Ms. Roberson, that we want them  
16 to be successful. We're also pretty demanding, and we  
17 want to see results, and when things happen, we do ask  
18 the whys, and we want to understand what was missed and  
19 what led them -- led to that event or condition.

20           So I'm starting to see them become more proactive  
21 versus reactive, and so that's a good indicator, also.

22           BOARD MEMBER ROBERSON: So one of the areas we  
23 were watching, we were watching all of them, but one in  
24 particular are the corrective actions related to  
25 workforce morale and leadership within the workforce.

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1 And how do you view their progress in that area as part  
2 of their corrective action plan?

3 MR. ARMSTRONG: Very good. I'm pleased with that  
4 investment at all levels. We talked to the vice  
5 president of tritium operations, or facilities, the  
6 senior vice president. He gets it. He is -- he  
7 recognizes that that is a necessary part of the  
8 corrective action is investing in the culture being  
9 executed. So as I mentioned earlier, they don't just  
10 say, let's go send somebody to training, let's really  
11 develop the person, our new nuclear worker, our future,  
12 so there's a large commitment by SRNS to improve conduct  
13 of operations.

14 BOARD MEMBER ROBERSON: So I understand you to  
15 say you're trying to give them elbow room and you're  
16 pleased with the actions they're taking and pace. Can  
17 you discuss whether you've thought about whether  
18 additional field oversight, federal field oversight,  
19 would help in implementing the corrective action plan  
20 going forward to ensure the appropriate level of  
21 performance over the next several months, given the  
22 increased pace of operations, especially regarding the  
23 planned tritium producing and burnable absorber  
24 extractions at the tritium extraction facility?

25 MR. ARMSTRONG: Yes. So when I say elbow room,

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1 I'm not there to tell them how to do their business. I  
2 tell them what needs to be done. I don't tell them how  
3 to do it. And they give me the roadmap of how they're  
4 going to do it. And I determine what's the appropriate  
5 level of oversight to do that.

6 A good example is with our blowers at the tritium  
7 facilities. We knew we had to operate a compromised  
8 blower system, so we developed an enhanced oversight  
9 plan with my facility representatives. I wanted more  
10 feet on the ground, more observation, and then I also  
11 asked our M&O partner to do the same, which they did.  
12 And so -- and then we've had very successful runs in the  
13 extractions, and we're slowly backing off a little bit.  
14 It doesn't mean we're shutting it off, it means go ahead  
15 and give them a little more room, go ahead and execute  
16 our M&Os doing exactly what we want them to do, and  
17 they're communicating with us continually.

18 As I mentioned earlier, we have daily meetings  
19 with our partner. Every morning, my entire  
20 organization, their entire organization, and we talk  
21 about the performance of the previous day, what our  
22 priorities are this morning, and then we revisit it  
23 again the next day and we talk about challenges that we  
24 have there. Some of those meetings are 5 minutes, some  
25 of those meetings are 15 minutes. It's a way for us to

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1 know exactly what each other is doing and we're able to  
2 communicate.

3 You know, during this period of operating with a  
4 compromised blower, we're going to have more oversight,  
5 and I want to know how you're going to respond to a  
6 condition of having one blower in this case, and they  
7 were able to give me the confidence, they were able to  
8 develop abnormal operating procedures to address that,  
9 and they have performed exceedingly well in that area.

10 So, you know, part of giving them elbow room is  
11 also extending trust, and they've done very well at  
12 demonstrating that trust and giving us that  
13 transparency. They're very quick to notify me  
14 personally, and my fac reps and my teams of things that  
15 happen, things that occurred, and we stand back and  
16 we're watching them to see exactly what they're going to  
17 do. If they misstep, we're going to let them know.

18 You know, we want them to be successful, we hold  
19 them accountable, we're a demanding customer, but at the  
20 end of the day, we have a very important mission to do,  
21 we can't compromise safety. We have to do both  
22 together. So I'm pleased with what they're doing in  
23 this area.

24 BOARD MEMBER ROBERSON: Thank you. Thank you, I  
25 appreciate your response, Mr. Armstrong.

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1 Over to you, Mr. Summers.

2 VICE CHAIR SUMMERS: Thanks, Ms. Roberson.

3 The next couple of questions are for Mr. Budney.  
4 Mr. Budney, the Board understands that a couple of years  
5 ago, the EM field office utilized contractors to  
6 supplement facility representatives. These contractors  
7 were from a support contractor and not from the managing  
8 and operating organization. The Federal Acquisition  
9 Regulation defines inherently governmental functions as  
10 "a function that is so intimately related to the public  
11 interest as to mandate performance by government  
12 employees. This definition is a policy determination  
13 and not a legal determination."

14 Subpart 7.5 of the Federal Acquisition Regulation  
15 states that agencies are responsible for determining  
16 which functions are inherently governmental, and "this  
17 assessment should take place and place emphasis on the  
18 degree to which the conditions and the facts restrict  
19 the discretionary authority, decision-making  
20 responsibility, or accountability of government  
21 officials using contractor services."

22 So two questions, Mr. Budney, sir. Sir, as you  
23 know, facility representatives exercise a great deal of  
24 independence in their oversight of managing and  
25 operating contractors. Can you discuss with respect to

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1 a contractor's supplementing facility representative  
2 positions how the field office ensure that they were not  
3 exercising inherently governmental functions? Thank  
4 you.

5 MR. BUDNEY: Sure. Those support service  
6 contractors only acted as eyes and ears to augment the  
7 qualified facility representatives in those facilities.  
8 They were not afforded any decision-making authority at  
9 all, nor any government -- inherently governmental  
10 responsibilities, but actually just gathering data for  
11 the facility rep so that we could make sure we were  
12 getting a broad look at the operations going on and then  
13 the facility rep would determine which items required  
14 further action or personal review, a personal  
15 observation.

16 It was a temporary measure when we were short on  
17 facility reps on board, and as soon as we got out of  
18 that situation, we have discontinued that. We also made  
19 sure that they were well seasoned, experienced folks  
20 that that support service contractor brought in with  
21 experience in this particular area so we could trust  
22 that they were looking in the right areas to help us.

23 VICE CHAIR SUMMERS: Thank you, Mr. Budney. I  
24 appreciate the answer. As a follow-on, then, do you  
25 foresee that there may be a need in the future in order

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1 to utilize contractors in this manner in the future?

2 MR. BUDNEY: That is not in our plan. As you've  
3 seen, we have 27 of our 33 field representatives --  
4 facility representatives on board. We continue to  
5 pursue the remainder on board, so we don't foresee that  
6 need in the future at the moment based on the way the  
7 hiring is going.

8 VICE CHAIR SUMMERS: Very good. Thanks,  
9 Mr. Budney.

10 Ms. Connery, that concludes my questions. Over  
11 to you, Ms. Connery.

12 CHAIR CONNERY: Thank you for that. So I just  
13 have a clarifying question. We've been kind of puzzling  
14 this over with the staff, and it goes to a question that  
15 I asked earlier about the SSOs. We're just trying to  
16 understand about the division of labor having to do with  
17 the surplus plutonium project, and I understand that the  
18 building is in K-Area, so therefore the land loan is EM,  
19 the material will come from NNSA, and I asked about, you  
20 know, fac reps because we expect that there's going to  
21 be an increase in throughput and gloveboxes, and I'm  
22 just trying to understand from both of you how that  
23 division of labor works, and again, the question has to  
24 do with that increased activity, why are you comfortable  
25 not having increased oversight of fac reps at that

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1 facility? That's to both Mr. Budney and Mr. Armstrong,  
2 I don't know how you all want to respond.

3 MR. BUDNEY: I've been in the facility and looked  
4 at the physical arrangement, and I don't think it's that  
5 complex for the fac reps we have right now to continue  
6 their oversight of that, based on the physical  
7 arrangement and what will be occurring in that.

8 It is increased operations and we'll evaluate  
9 that as we go and because we will be doing 24/7  
10 operations in there, which we have done in the past. So  
11 we'll have to take a look at that and see if we need  
12 more folks to cover that on the back shifts, but as far  
13 as, you know, the physical arrangement of the facility,  
14 you know, we don't believe it's that complex that it  
15 requires additional folks to fill the field.

16 CHAIR CONNERY: Right. So, you know, I've  
17 actually walked it down, so I understand what you're  
18 saying about the physical arrangement, but I was trying  
19 to get at the increased activity, the 24/7 operations,  
20 but it sounds like that will get evaluated once we --  
21 once we get to that point. Is that a fair statement?

22 MR. BUDNEY: Well, we could look at it now,  
23 because we actually have gone to 24/7 operations on the  
24 single glovebox that we have working there, right, but  
25 we're going to add three more, and so there would be

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1 even more activity going on. But that's a few years off  
2 before we get to those additional gloveboxes. So we'll  
3 take a look at how it's going right now and how -- the  
4 conduct of operations ability at present, which has been  
5 pretty good so far with the single glovebox we've got  
6 going.

7 CHAIR CONNERY: Right. Well, I appreciate you  
8 clarifying that for me anyway, because there was a  
9 little bit of a confusion.

10 So I'm going to see if my other Board members  
11 have any other questions for our panelists.

12 Mr. Summers, do you have any other additional  
13 questions that you would like to ask?

14 VICE CHAIR SUMMERS: No, Chair Connery, I do not  
15 have any further questions at this time. I have asked  
16 them all. I really appreciate the responses. Thank  
17 you.

18 CHAIR CONNERY: Thank you.

19 Ms. Roberson?

20 BOARD MEMBER ROBERSON: Thank you, Ms. Connery.  
21 I don't have any additional questions at this time.  
22 Thank you.

23 CHAIR CONNERY: So I don't have any questions  
24 either. I know that from earlier sessions, we had a  
25 number of questions that we submitted for the record, so

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1 we look forward to getting those answers. We'll catalog  
2 them and make sure that that gets over to the Department  
3 to answer them going forward.

4 As you know, we anticipated a Session 3 in which  
5 the public was going to be allowed to make comments, but  
6 we didn't have anybody sign up in time for us to allow  
7 them to make those comments during this time period, so  
8 I do want to let folks know who are watching that you  
9 can submit public comments to [hearing@dnfsb.gov](mailto:hearing@dnfsb.gov) at any  
10 time before August 13th, and your comments will be added  
11 to the public record for the hearing.

12 So if you are watching this, if anything piqued  
13 your interest and you have comments for us, please  
14 submit those and we will make sure that they become part  
15 of the record, and we will make sure that the Department  
16 has a copy of those as well as it will be of interest to  
17 them.

18 So at this time, I am going to turn to my fellow  
19 Board members for my closing remarks they will have for  
20 the hearing in its entirety. So, Mr. Summers, closing  
21 remarks from you?

22 VICE CHAIR SUMMERS: Thanks, Ms. Connery. First  
23 I'd like to thank each of the participants and those  
24 that helped to put this entire innovative virtual  
25 meeting and hearing on for the first time ever, and

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1 since this is my first meeting and hearing, quite an  
2 introduction. So I've learned a lot, and I really  
3 appreciate everybody's efforts to make it as seamless as  
4 possible using and leveraging the Internet and  
5 capabilities that we have.

6 I also appreciate all those in the audience that  
7 participated or at least observed today and look forward  
8 to any comments that you may have and look forward to  
9 potentially doing in this format in the future.

10 I thank each of the leaders and the panelists  
11 that participated and all those that spoke for their  
12 leadership and their commitment and investment in safety  
13 on behalf of the workers, the public and the  
14 environment. We are all together safety partners. I  
15 appreciate that. I look forward to us continuing to  
16 work together to make safety improvements on behalf of  
17 our nation and I'm glad to be a part of it, and we want  
18 to be value-added and we know that you're value-added to  
19 make sure that things are conducted safely as operators  
20 and regulators, and we will do our part as safety  
21 oversight and our statutory responsibilities to assist  
22 you and to assist the Secretary of Energy in that  
23 important mission.

24 So thanks, Ms. Connery, for a moment to say a few  
25 comments. No further questions, and that's all I have.

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1 Thank you, ma'am.

2 CHAIR CONNERY: Thank you, Mr. Summers.

3 Ms. Roberson?

4 BOARD MEMBER ROBERSON: Thank you, Ms. Connery.

5 I want to express my appreciation to Dr. Verdon,  
6 Mr. White, and their support staff, Mr. Armstrong and  
7 Mr. Budney, Mr. Roscetti and our support staff. I think  
8 we had a good dialogue. We learned some things, we  
9 exchanged some information, and as with these hearings  
10 as they go, they tend to be a point in time, but on most  
11 of these topics, the focus and dialogue will continue  
12 on. So I appreciate your attention, your time and your  
13 commitment and your contribution to the dialogue and I  
14 thank you all very much.

15 Thank you, Ms. Connery.

16 CHAIR CONNERY: Thank you, Ms. Roberson.

17 I echo the comments of my fellow Board members  
18 and thank the participants for being here today and for  
19 being so forthcoming with the information that we need  
20 in order to be able to perform our duties in advising  
21 the Secretary and performing our statutory duties, this  
22 hearing being one of those.

23 I look forward to seeing the responses to our  
24 questions for the record, and for getting more clarity,  
25 specifically on the tritium facility. The oversight

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1 questions are also really important to us as our staff,  
2 as we noted, have been doing a review of oversight in a  
3 number of facilities across the complex, we aren't  
4 picking on Savannah River, you were the site of  
5 opportunity and we had a long-standing commitment to  
6 perform a hearing back before COVID happened, and to our  
7 friends in the area of the Savannah River site, we wish  
8 we were down there and we hope to see you soon and  
9 interact with the public and the interest groups that  
10 are there as well as the dedicated staff at the  
11 facilities where we do our work. So we appreciate all  
12 of you and all of your time.

13 So thank you to our witnesses and for DOE for  
14 supporting the hearing, and thank you to our staff who  
15 spent many, many hours putting this together and in this  
16 unique format. It is both, I think, a curse and a  
17 blessing. It's a little difficult to have to pay  
18 attention to is my microphone on, is my camera is on, as  
19 well as engaging in a dialogue, but it does allow for a  
20 number of people who would not be able to be in the room  
21 to participate remotely, which I think is a net positive  
22 for us.

23 So those who attended via the Internet, as well  
24 as elected officials and other representatives of state  
25 and local organizations, thank you for coming and for

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1 watching, and please, once the link is up on our site,  
2 you'll be able to share this more broadly to some of  
3 your other friends, colleagues and interlocutors.

4 The Board will consider the information gathered  
5 this afternoon to inform any actions that we may take  
6 regarding any of the issues that we discussed today.  
7 The record of this proceeding, as I noted before, will  
8 remain open until August 13th, 2021, so anyone, to  
9 include the Department, if there's anything that you  
10 feel should be added to the record, please let us know  
11 and we will do so.

12 And I just would like to reiterate that the Board  
13 reserves the right to further schedule and regulate the  
14 course of the public hearing to recess, reconvene,  
15 postpone or adjourn the public meeting and to otherwise  
16 exercise its authority under the Atomic Energy Act of  
17 1954, as amended.

18 So this concludes our public hearing at the  
19 Defense Nuclear Facilities Safety Board. Thank you so  
20 much for your attendance and we are now adjourned.

21 (Whereupon, the hearing was adjourned.)

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CERTIFICATE OF REPORTER

I, Sally Jo Quade, do hereby certify that the foregoing proceedings were recorded by me via stenotype and reduced to typewriting under my supervision; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were transcribed; and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.



SALLY JO QUADE