

1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON POWER REACTOR DECOMMISSIONING

5 RULEMAKING

6 + + + + +

7 TUESDAY,

8 MARCH 15, 2016

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10 ROCKVILLE, MARYLAND

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12 The Commission met in the Commissioners' Hearing  
13 Room at the Nuclear Regulatory Commission, One White Flint North,  
14 11555 Rockville Pike, at 9:00 a.m., Stephen G. Burns, Chairman,  
15 presiding.

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18 COMMISSION MEMBERS:

19 STEPHEN G. BURNS, Chairman

20 KRISTINE L. SVINICKI, Commissioner

21 WILLIAM C. OSTENDORFF, Commissioner

22 JEFF BARAN, Commissioner

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1 ALSO PRESENT:

2 ANETTE VIETTI-COOK, Secretary of the Commission

3 MARGARET DOANE, General Counsel

4 NRC STAFF:

5 JASON CARNEAL, Project Manager, Rulemaking Branch,

6 Division of Policy and Rulemaking, NRR

7 MICHAEL JOHNSON, Deputy Executive Director for

8 Reactor and Preparedness Programs

9 MEENA KHANNA, Branch Chief, Plant Licensing Branch

10 IV-2, Division of Operating Reactor Licensing,

11 NRR

12 BRUCE WATSON, Chief, Reactor Decommissioning Branch,

13 Division of Decommissioning, Uranium Recovery,

14 and Waste Programs, NMSS

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16 EXTERNAL PANELISTS:

17

18 PANEL 1:

19 PAUL BALDAUF, Director, Division of Energy Security

20 and Sustainability, New Jersey Department of

21 Environmental Protection

22 DWIGHT DUDLEY, Florida State Representative

23 TERESA ENGELHART, Radiological Emergency Preparedness

24 Supervisor, Wisconsin Emergency Management

25 ROBERT B. WEISENMILLER, Chair, California Energy

1 Commission and California State Liaison  
2 Officer  
3 DAN WOLF, State Senator, Commonwealth of Massachusetts  
4 PANEL 2:  
5 PAMELA COWAN, Senior Director of Decommissioning,  
6 Exelon Generation  
7 GEOFFREY FETTUS, Senior Project Attorney, Nuclear  
8 Program, Natural Resources Defense Council  
9 ROD MCCULLUM, Senior Director, Used Fuel and  
10 Decommissioning Programs, Nuclear Energy  
11 Institute  
12 WAYNE A. NORTON, Chair of the Decommissioning Plant  
13 Coalition, President/CEO of Yankee Atomic and  
14 Connecticut Yankee, and Chief Nuclear Officer  
15 of Maine Yankee  
16 KATE O'CONNOR, Chairperson, Vermont Nuclear  
17 Decommissioning Citizens Advisory Panel  
18 GERRY VAN NOORDENNEN, Vice President, Regulatory  
19 Affairs at Zion, Energy Solutions  
20  
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23  
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## 1 P R O C E E D I N G S

2 9:03 a.m.

3 CHAIRMAN BURNS: Well, good morning. I want to  
4 welcome the NRC staff, our external panelists who will speak to us  
5 today and members of the public who may be attending today's  
6 meeting or viewing it remotely.

7 The purpose of today's meeting is to discuss the  
8 NRC's rulemaking effort on power reactor decommissioning and to  
9 obtain perspectives from a variety of our external stakeholders.

10 We'll begin with presentations from the NRC staff who  
11 will discuss the current decommissioning framework and experience to  
12 date as well as provide an overview of the Advance Notice of Proposed  
13 Rulemaking which was issued for public comment this past November.  
14 I believe the comment period ends within about the next week.

15 Following the NRC staff panel, we will hear from the  
16 first of two external panels which consists of representatives of states  
17 with decommissioning plants or plants that have announced planned  
18 closures.

19 And, following the first external panel, we'll have a brief  
20 break and then we'll hear from the second panel which includes a  
21 variety of other external stakeholders with interests in the  
22 decommissioning process for nuclear power plants.

23 Look forward to the presentations and ensuing  
24 discussion with members of the Commission.

25 Would any of my fellow colleagues like to make any

1 opening remarks?

2 I think, Commissioner Baran?

3 COMMISSIONER BARAN: Well, I want to start by  
4 thanking the presenters for making the trip to be here today. I know  
5 folks came in from all over the country and we really appreciate it.

6 I proposed having this meeting because  
7 decommissioning is a significant issue. When a nuclear plant shuts  
8 down, it's a big deal for the company, for the employees and for the  
9 community.

10 It also triggers a major change in NRC's regulatory  
11 oversight. That's why I wanted to invite participants who could talk  
12 about each plant that has recently shut down or will do so in the near  
13 future.

14 And, it's also why this decommissioning rulemaking is  
15 so important. When the Commission decided at the end of 2014 to  
16 initiate this rulemaking, I saw two main purposes for doing so.

17 First, we wanted to have requirements tailored for shut  
18 down reactors so we could get away from regulating by exemption.  
19 The exemption approach isn't efficient for anyone and it provides no  
20 opportunity for public comment.

21 And, second, a rulemaking provides a chance for NRC  
22 and all of our stakeholders to take a fresh look at our decommissioning  
23 process and requirements.

24 Stakeholders have strong views about important  
25 questions like the appropriate role of state and local governments,

1 | whether NRC should approve a post-shutdown decommissioning  
2 | activities report and the appropriateness of the three general  
3 | decommissioning options and the time frames associated with those  
4 | options.

5 |                   The rulemaking gives us a chance to benefit from  
6 | stakeholder views and to thoughtfully consider them with an open mind.

7 |                   So, in that spirit, I look forward to hearing the  
8 | perspectives and ideas of the wide range of stakeholders we have here  
9 | today. Thanks again for joining us.

10 |                   CHAIRMAN BURNS: Thank you, Commissioner.

11 |                   Any others?

12 |                   With that, Mike, if you start the staff presentation,  
13 | please?

14 |                   MR. JOHNSON: Thank you.

15 |                   Good morning, Chairman and Commissioners. We're  
16 | pleased to brief you this morning on the status of decommissioning  
17 | activities and the decommissioning rulemaking that is currently  
18 | underway.

19 |                   Recent experience with premature shutdown of  
20 | several reactors and the planned shutdown of others has focused our  
21 | attention on the decommissioning process.

22 |                   Of course, we have a long history of regulating plants  
23 | in the transition from operations through decommissioning. And,  
24 | licensees have demonstrated the ability to safely decommission their  
25 | facilities and we've gained experience and insights along the way.

1                   Bruce Watson, who is the Chief of the Reactor  
2 Decommissioning Branch in NMSS, the Office of Nuclear Materials  
3 Safety and Safeguards will provide an overview of the Agency's  
4 experience in reactor decommissioning from a historical perspective.

5                   With five power reactors that have permanently  
6 shutdown since 2013, the NRC received a number of requests for  
7 license amendments and regulatory exemptions.

8                   While processing the multiple licensing actions,  
9 actually, over 70 exemptions and amendments and other order  
10 recisions in a three-year period has been something of a challenge for  
11 the NRC staff.

12                   We have been able to complete those actions in a  
13 timely manner.

14                   We've learned lessons from the recent  
15 decommissionings and, in fact, we've grown more efficient with each  
16 subsequent review.

17                   Meena Khanna who is the Operating Reactor Branch  
18 Chief -- is a Branch Chief in the Office of Nuclear Reactor Regulation  
19 will provide an overview of the current process using license  
20 amendments and exemptions to establish a regulatory framework that  
21 is appropriate for a decommissioning facility and some lessons learned  
22 to date.

23                   And, finally, the Commission has directed that the staff  
24 proceed with the decommissioning rulemaking and that we deliver that  
25 rulemaking by 2019.

1                   One of the objectives is to address lessons learned to  
2 date from plants that have already gone through the process or that are  
3 currently going through the process of decommissioning.

4                   The Commission also directed that we look more  
5 broadly at the decommissioning process, including the current  
6 regulation and the advisability of changes to that regulation.

7                   The staff issued an Advance Notice of Proposed  
8 Rulemaking, or ANPR, for the power reactor decommissioning  
9 rulemaking in November of 2015.

10                  Jason Carneal, our Rulemaking Project Manager in the  
11 Office of Nuclear Reactor Regulation is here today to provide an  
12 overview of the ANPR and the status of the rulemaking activity.

13                  So, with that, I will turn to Bruce Watson to begin our  
14 presentation.

15                  MR. WATSON: Good morning and thank you for the  
16 opportunity to speak to you today.

17                  I am Bruce Watson. I am Chief of the Reactor  
18 Decommissioning Branch in the Office of Nuclear Materials Safety and  
19 Safeguards.

20                  Meena Khanna and I also chair the Interoffice  
21 Decommissioning Transition Working Group which has been in effect  
22 for a number of years now to efficiently and hopefully efficiently move  
23 along the transitioning of the five shutdown plants.

24                  Next slide, please?

25                  The NRC's decommissioning program has proven to

1 be successful. Lessons learned from the decommissioning of the first  
2 three power reactors were incorporated in the 1997 regulations,  
3 License Termination Rule, or commonly known as the LTR.

4 Since 1997, over 90 complex facility licenses have  
5 been termination and this includes the seven power reactors that  
6 prematurely shutdown in the 1990s.

7 The present decommissioning rules are  
8 performance-based and risk-informed and have provisions for the state  
9 and public involvement in the process.

10 Next slide, please?

11 Based on the experience from the 1990s, power  
12 reactor premature shutdowns, in 2000, the staff proposed integrated  
13 rulemaking to make the transition from operations to decommissioning  
14 more efficient. This rulemaking was deferred in light of the higher  
15 priorities of the 9/11 event and the anticipated license renewal  
16 requests.

17 Over the years, the events such as the decisions  
18 regarding the processing of EP exemptions and the issuance of orders  
19 in response to the Fukushima accidents have complicated and  
20 increased the number of actions required for the recently premature  
21 shutdown plants.

22 To facilitate security and emergency response actions,  
23 NSIR issued their Interim Staff Guidance.

24 These are part of the examples where the rulemaking  
25 will improve the efficiencies.

1 Next slide, please?

2 In accordance with the Atomic Energy Act of 1954 as  
3 amended, the NRC is an independent safety regulator ensuring safe  
4 uses of radioactive materials and, therefore, safe radiological  
5 decommissioning.

6 The NRC safety mission remains the same, whether a  
7 plant is in -- or a facility is in operations or in decommissioning.

8 NRC requires that radiological decommissioning is  
9 reasonably funded to ensure safety of the public and protection of the  
10 environment.

11 Through our licensing inspection programs, the safety  
12 oversight of decommissioning activities remains in effect until the  
13 license is terminated.

14 The states regulate utility commerce through their  
15 public service or utility commissions. States can also place additional  
16 requirements on the licensees or owners.

17 For example, Maine and Massachusetts required a  
18 lower dose criteria of 10 millirem per year for Maine Yankee and  
19 Yankee Rowe.

20 States decide their site restoration requirements and it  
21 can influence the future uses of the land and property.

22 Many states have deregulated their energy markets to  
23 allow for merchant plants. This may have added unanticipated and  
24 unintentional impacts from some of the prematurely shutdown power  
25 reactors.

1 Licensees are responsible for the safe  
2 decommissioning and industry good practices for the licensee to  
3 sponsor citizen's engagement panels or advisory boards.

4 While not an NRC requirement, I believe this has been  
5 the most citizen advisory groups, have a diverse membership from the  
6 local community and local government that encourages two-way  
7 communications.

8 Next slide, please?

9 For the Decommissioning ANPR out for public  
10 comment, I thought it would be appropriate to share some of the staff's  
11 experience at public meetings.

12 Participation of state and local governments and the  
13 public has been site-specific and varied.

14 Major issues at Kewaunee were the loss of jobs, local  
15 economic issues and the future property real estate value impacts from  
16 leaving the spent fuel on site.

17 In California, the level of involvement has been mixed.  
18 For San Onofre, there has been significant congressional state and  
19 local government interests covering a broad spectrum of issues  
20 including the loss of jobs, the decommissioning schedule, the long-term  
21 storage of spent fuel and offsite emergency response reductions.

22 San Onofre has a very active citizen's engagement  
23 panel that has a diverse membership and has been successful at  
24 interacting with the public.

25 The rest of California is significantly different. There

1 was little interest in the decommissioning of Rancho Seco.

2                   The license was terminated in 2009 with the reactor  
3 building and all the support structures still standing.

4                   At GE Vallecitos, there has been very little interest in  
5 the two power reactors that have been in safe store for decades.

6                   Humboldt Bay has a very active community advisory  
7 board and has endorsed the license termination plan currently under  
8 review by the staff.

9                   At Crystal River, concerns were voiced about the cost  
10 of the containment repairs, the replacement of steam generators and  
11 that the rate-payers will not recover the expenses due to the end of the  
12 plant operations.

13                   For Vermont, there are many issues that are subject to  
14 litigation, so we will not be discussing them today.

15                   Next slide, please?

16                   Ten power reactors have safely completed  
17 decommissioning seven using the current regulations. The plants  
18 presently in decommissioning, whether in active decommissioning or in  
19 safe store, are safe and secure and protective of the public health and  
20 environment.

21                   The current Part 50 regulations for reactor  
22 decommissioning were designed for plants expecting to be  
23 permanently shut down at the end of license. And, the  
24 decommissioning process would have started five years before that  
25 end date.

1 To date, all 29 power reactors ceasing operations have  
2 not operated to end of license. The transitioning of power reactors  
3 from operation to decommissioning continues to be performed safely.

4 Our regulations and oversight processes have proven  
5 sufficiently flexible and robust.

6 In closing, here are four pictures of sites after NRC  
7 license termination. Maine and Massachusetts required greenfielding  
8 at Maine Yankee and Yankee Rowe respectively.

9 At Rancho Seco and Trojan, the reactor buildings and  
10 support structures were still standing at license termination.

11 All four sites have onsite dry fuel storage installations.

12 And, I thank you and I would like to turn it over to  
13 Meena Khanna for her presentation.

14 MS. KHANNA: Thank you, Bruce.

15 Good morning. My name is Meena Khanna and I'm a  
16 Branch Chief in the Division of Operating Reactor Licensing.

17 Today, I'll be providing you with an overview of the  
18 regulatory framework for plants that are transitioning from operating to  
19 decommissioning.

20 My presentation will include a discussion of some  
21 challenges that the staff faced with the recent plants that underwent the  
22 decommissioning transition process as well as some lessons learned  
23 that we plan to apply to the next set of plants that transition to  
24 decommissioning.

25 Next slide, please?

1                   Between February 2013 and December 2014, five  
2 reactor units permanently ceased operations. As Bruce stated, these  
3 include Kewaunee, San Onofre Units 2 and 3, Crystal River Unit 3 and  
4 Vermont Yankee.

5                   Additional licensees have communicated intentions to  
6 permanently shutdown the reactors, specifically, FitzPatrick has  
7 announced its intention to shutdown on January 27, 2017, Pilgrim has  
8 announced its intention to shutdown no later than June 2019 and  
9 possibly as early as mid-2017 and Oyster Creek has announced its  
10 intention to shutdown in late 2019. And, the potential exists that  
11 additional plants could shutdown.

12                   Next slide, please?

13                   The staff's current regulatory framework for plants  
14 transitioning from operating to decommissioning ensures adequate  
15 protection of public health and safety and of the environment.

16                   Some regulations that apply to operating reactors  
17 continue to apply to the decommissioning reactors.

18                   Since the reactors shutdown, the number of potential  
19 accident scenarios and risks of radiological releases are reduced.

20                   Based on this, licensees request certain license  
21 amendments, regulatory exemptions and relaxation of orders that  
22 reflect this reduction in risk.

23                   Typical amendments include changes to the  
24 emergency plan, technical specifications and use of the certified fuel  
25 handlers in lieu of licensed operators.

1           Typical exemption requests involve emergency  
2 preparedness, security and the use of the decommissioning trust fund  
3 for spent fuel management.

4           The staff conducts comprehensive reviews of these  
5 licensing actions. Other actions include the post-shutdown  
6 decommissioning activities report meeting and review.

7           As a result, a long-term regulatory framework for the  
8 facilities established during the transition process based on the reduced  
9 risk posed by the facility.

10           I'd like to note that the Agency's transition process and  
11 for the transfer of regulatory responsibility from the Operating Reactor  
12 Program Oversight and the Office of Nuclear Reactor Regulation to the  
13 Nuclear Materials Oversight Organization and the Office of Nuclear  
14 Material Safety and Safeguards.

15           This usually occurs once the staff completes the defuel  
16 technical specifications amendment.

17           We have completed all of the major decommissioning  
18 licensing actions for the five units and successfully transferred all five  
19 units to NMSS.

20           Next slide, please?

21           As a result of the unplanned reactor shutdowns, the  
22 staff and industry faced several challenges.

23           First of all, both the NRC staff and the licensees  
24 experienced a learning curve in addressing the decommissioning  
25 transition process. Because the last set of plants, decommissioned in

1 the 1990s, the current NRC staff had limited experience in processing  
2 the decommissioning transition licensing actions.

3 The staff made significant strides in completing over 70  
4 decommissioning licensing actions despite the fact that the staff was  
5 not afforded much time to plan and schedule the licensing reviews for  
6 the five premature reactor unit shutdowns.

7 Further, it was a challenge to conduct timely reviews,  
8 especially when we're using, in many cases, the same resources for the  
9 operating reactor licensing reviews.

10 Next slide, please?

11 Several actions were taken by the staff to address the  
12 challenges that I mentioned on the previous slide.

13 We consolidated the decommissioning transition  
14 project management into a single branch in NRR which allowed for  
15 efficiencies within the Agency in conducting the reviews as well as in  
16 providing for consistent communications.

17 As Bruce mentioned, we formed an Interoffice  
18 Decommissioning Transition Working Group that represents almost  
19 every office across the Agency including NRR, NMSS, the Office of  
20 Nuclear Security and Incident Response, Office of General Counsel,  
21 Office of Public Affairs as well as the regions.

22 The purpose of the working group included addressing  
23 challenging regulatory and technical issues and communicating best  
24 practices and lessons learned.

25 We also developed Interim Staff Guidance, as Bruce

1 mentioned, for complex reviews such as the decommissioning security  
2 plan as well as the emergency preparedness reviews.

3 We refined our technical safety evaluations with each  
4 licensing action review, which can now be used as a template for future  
5 reviews and will be documented in a formal lessons learned report that  
6 we are in the process of finalizing.

7 Lastly, we ramped up our communications with the  
8 licensees by conducting public meetings to discuss regulatory and  
9 technical issues as well as schedules associated with the various  
10 licensing actions.

11 Based on those discussions, the NRC staff prioritized  
12 the decommissioning licensing actions. We also held public meetings  
13 with NEI and industry to discuss decommissioning topics of interest  
14 such as emergency planning.

15 In assessing our current regulatory framework and  
16 decommissioning transition process, we have concluded, as Mike  
17 mentioned earlier, the regulatory framework that we have in place is  
18 effective and we have a proven track record that it does ensure that  
19 plans are decommissioning safely.

20 The staff is addressing potential safe efficiency gains  
21 through its rulemaking efforts which will be discussed by Jason later in  
22 the presentation.

23 Next slide, please?

24 The staff identified several lessons learned and best  
25 practices as a result of completing the recent round of

1 decommissioning transition activities.

2           These include early and frequent communications  
3 between the licensee and NRC staff is key in coordinating licensing  
4 actions and schedules. This includes conducting pre-submittal  
5 meetings and submitting decommissioning licensing actions well ahead  
6 of permanent cessation of operations.

7           Licensees should use established precedent when  
8 available and specifically address anything that is unique or  
9 substantially deviates from established precedent.

10           Based on the recent plants that decommissioned, the  
11 staff saw substantial benefits with regard to completing the reviews and  
12 transitioning the plant to NMSS in a timely manner as a result of the  
13 licensees pre-planning efforts.

14           As an example, Kewaunee and Vermont Yankee both  
15 engaged with the NRC in significant pre-planning. In addition,  
16 Vermont Yankee submitted a number of licensing actions well before  
17 permanent cessation of operations.

18           Routine engagement with our federal, state and local  
19 government officials to keep them informed throughout the plants  
20 decommissioning licensing process is also essential.

21           And, lastly, licensees are strongly encouraged to  
22 establish a local community advisory panel and communicate with  
23 public, state and local community stakeholders on issues important to  
24 the community.

25           We have and continue to address the importance of

1 | these aspects to licensees, NEI and the public through various venues  
2 | such as public meetings and conferences.

3 |           As I mentioned earlier, we are in the process of  
4 | finalizing a lessons learned report and these lessons and best practices  
5 | represent a few of the topics that will be addressed in that report.

6 |           Next slide, please?

7 |           Okay, so, I'd like to point to this graphic. So, this slide  
8 | provides a graphic that represents the efficiencies gained from  
9 | implementing lessons learned from prior staff decommissioning  
10 | licensing reviews.

11 |           As shown on this graphic, in comparing the hours  
12 | expended by the staff for the first five decommissioning plants for which  
13 | the staff recently completed, we noted a declining trend of hours  
14 | expended by the staff for each of the reviews completed based on the  
15 | experiences gained from the prior reviews.

16 |           And, this was done while still ensuring safety of the  
17 | plants that were transitioning to decommissioning.

18 |           We chose emergency preparedness reviews for the  
19 | five recent shutdown reviews in this graphic and found similar trends  
20 | with respect to the other licensing reviews.

21 |           We are pleased with the efficiencies gained, however,  
22 | it should be noted that there may be variations in the reviews that could  
23 | impact the staff's level of effort required for future reviews.

24 |           Next slide, please?

25 |           With regards to path forward, the staff will continue to

1 use the current decommissioning transition process with  
2 implementation of lessons learned until the decommissioning  
3 rulemaking is implemented.

4 As I mentioned, earlier, we are in the process of  
5 finalizing a report that reflects best practices, lessons learned and  
6 efficiencies that we have identified and implemented as a result of the  
7 recent decommissioning licensing reviews.

8 Thank you. I will now turn the presentation over to  
9 Jason Carneal who will address the decommissioning rulemaking  
10 efforts.

11 MR. CARNEAL: Thank you, Meena.

12 Good morning. My name is Jason Carneal and I'm a  
13 Project Manager in the Division of Policy and Rulemaking in the Office  
14 of Nuclear Reactor Regulation.

15 Today, I'll be providing you with an overview of the  
16 rulemaking effort with a focus on the Advance Notice of Proposed  
17 Rulemaking.

18 Next slide, please?

19 In the Staff Requirements Memorandum for  
20 SECY-14-0066 dated August 7, 2014, the Commission directed the  
21 staff to report its views on the need for an integrated rulemaking for  
22 decommissioning.

23 Subsequently, in the Staff Requirements  
24 Memorandum for SECY-14-0118 issued on December 30, 2014, the  
25 Commission directed the staff to proceed with the rulemaking on

1 decommissioning and to set an objective of completing the rule in 2019.

2           The Commission also directed the staff to continue  
3 processing current and pending applications for decommissioning  
4 amendments and exemptions until that regulatory work is complete.

5           In addition, the Commission provided the staff with an  
6 initial scope for the power reactor decommissioning rulemaking. This  
7 scope included the issues discussed in SECY-14-0145 such as the  
8 graded approach to emergency preparedness, lessons learned from  
9 the plants that have already or are currently going through the  
10 decommissioning process, the advisability of requiring NRC approval of  
11 a licensee's post-shutdown decommissioning activity report, the  
12 appropriateness of maintaining the three existing options for  
13 decommissioning and the time frames associated with those options,  
14 the appropriate role of state and local governments and  
15 nongovernmental stakeholders and the decommissioning process and  
16 any other issues deemed relevant by NRC staff.

17           In fiscal year 2015, the staff began work on the power  
18 reactor decommissioning rulemaking in parallel with the remaining  
19 license amendment and exemption requests.

20           Next slide, please?

21           In many of the areas including in the power reactor  
22 decommissioning rule scope, the staff identified a clear need to obtain  
23 stakeholder input.

24           For example, input from state and local governments is  
25 critical to the evaluation of their appropriate roles in the

1 decommissioning process.

2           In order to gain formal feedback from stakeholders, the  
3 staff issued an Advance Notice of Proposed Rulemaking or ANPR for  
4 the power reactor decommissioning rule on November 19, 2015.

5           The ANPR seeks stakeholder feedback on issues  
6 being considered as part of the rulemaking effort.

7           The staff held a public meeting on December 9, 2015  
8 to clarify the questions contained in the ANPR.

9           The comment period for the ANPR was extended to  
10 March 18, 2016 based on feedback from multiple stakeholders that  
11 additional time was necessary in order to provide a comprehensive  
12 response to the questions posed in the ANPR.

13           Extension of the comment period to 120 days allows  
14 additional time for all stakeholders to provide feedback.

15           Next slide, please?

16           The overall goals of the decommissioning rulemaking  
17 are to promote a more efficient decommissioning process, reduce the  
18 need for exemptions from regulations and support the principles of  
19 good regulation including openness, clarity and reliability.

20           The ANPR contains a detailed background and history  
21 of the regulation of decommissioning power reactors and then seeks  
22 stakeholder feedback on specific regulatory topics.

23           The ANPR is arranged into sections that contain  
24 questions in each technical area. The topics covered in the ANPR  
25 include emergency preparedness, physical security, fitness for duty,

1 training requirements for certified fuel handlers, the current regulatory  
2 approach to decommissioning, application of backfitting protection,  
3 Decommissioning Trust Funds, offsite and onsite liability protection and  
4 general questions regarding the regulation of decommissioning power  
5 reactors.

6 I would like to note that the staff is receiving public  
7 comments in almost all of these areas. To date, the staff has received  
8 59 public comment submission on the ANPR from members of the  
9 public, state and local governments, nongovernmental organizations  
10 and professional societies.

11 Next slide, please?

12 As I mentioned, the ANPR was published in November  
13 and the public comment period ends this Friday, March 18. The staff is  
14 currently developing a regulatory basis for the rule and will use  
15 stakeholder input received on the ANPR to inform the development of  
16 its regulatory basis.

17 Looking forward, the staff intends to publish the draft  
18 regulatory basis for public comment. The staff estimates that their  
19 draft regulatory basis will be completed in late calendar year 2016.

20 After completion of the final regulatory basis, the staff  
21 will develop and publish the proposed rule and draft regulatory  
22 guidance for the rule and will issue these documents for public  
23 comment.

24 The staff also intends to hold a public meeting after  
25 each of the listed rulemaking milestones.

1 In SECY-15-0014, the staff provided a list of  
2 assumptions that were key to the staff's ability to complete this  
3 rulemaking by calendar year 2019.

4 The list included an assumption that no additional  
5 reactors other than Oyster Creek Nuclear Generating Station would  
6 permanently shutdown during the rulemaking period.

7 Since that time, Entergy announced that two additional  
8 sites, James A. FitzPatrick Nuclear Power Plant and Pilgrim Nuclear  
9 Power Station would permanently cease operations within the  
10 rulemaking period.

11 The staff will continue to monitor this situation and will  
12 communicate any impacts on the rulemaking schedule to the  
13 Commission.

14 The staff continues to pursue the objective of providing  
15 the final rule and final regulatory guidance to the Commission in  
16 calendar year 2019.

17 At this time, I'll turn back over to Mike Johnson for  
18 closing remarks.

19 Thank you.

20 MR. JOHNSON: Thanks, Jason.

21 So, in conclusion and as we've discussed, the staff has  
22 gained significant experience in decommissioning nuclear power  
23 reactors.

24 All the reactors that have permanently shutdown are  
25 completing that transition in a safe and a secure manner. And, we are

1 taking action to incorporate the lessons that we've learned into our  
2 existing process and we'll certainly do that into the rulemaking that we  
3 have ongoing.

4 We look forward, with that, to the Commission's  
5 questions.

6 Thank you.

7 CHAIRMAN BURNS: Thank you and I thank the staff  
8 for the presentations.

9 We have a brief period for some clarifying questions  
10 from the Commission. And, Commissioner Svinicki will go first today.

11 COMMISSIONER SVINICKI: Yes, I -- if we need to  
12 take time off my subsequent rounds, that's fine.

13 I did think it was important that we began this meeting  
14 with a contextual overview by the NRC staff.

15 I know and I'm grateful for all those who have traveled  
16 to be here. They're probably ready to get this preliminary out of the  
17 way. But, I did think it was important for you to give a status of where  
18 we are, both with ongoing work and the Advance Notice of Proposed  
19 Rulemaking.

20 You know, we regulate really complex topics and, as a  
21 result, as Commissioner Baran noted, there's a lot of diverse views on  
22 what we're doing well, what we could do better.

23 I think that, in light of that, what we need to do is speak  
24 with clarity about things. And, I want to compliment all the NRC staff  
25 who worked on the ANPR in terms of looking at notices of this type.

1 I felt that we drafted it with a lot of particularity and  
2 clarity. And, I appreciated that. It was very well done, in my view.

3 Meena, you mentioned in your presentation, but also in  
4 the ANPR, is this statement, the need for a power reactor  
5 decommissioning rulemaking is not based on any identified  
6 safety-driven or security-driven concerns.

7 Therefore, the primary objective of the  
8 decommissioning rulemaking is to implement appropriate regulatory  
9 changes that reduce the number of licensing actions needed during  
10 decommissioning.

11 So, although I know we're going to hear on the other  
12 two panels a lot of suggestions for changes that we could make, and, as  
13 Commissioner Baran indicated, and the public comment period is still  
14 open, we're very early in that process of evaluating it.

15 But, can you just confirm that, you know, some may  
16 say that we need to make changes for safety or security reasons, but  
17 the staff does not share that determination, you believe that safety and  
18 security is ensured through the process we have?

19 MS. KHANNA: That's correct.

20 COMMISSIONER SVINICKI: Okay, thank you.

21 The other thing that the ANPR goes on to say is that, if  
22 we look at the late 1990s, 2000 and some of the work that the staff did  
23 at that time, the Agency was on a path to do, I will say a broader  
24 scoped, perhaps, rulemaking on these issues.

25 And, you mentioned in the ANPR that, incorporating

1 | too broad of a regulatory scope into a single rule was one of the  
2 | challenges encountered during that prior effort.

3 |                   I know we're very early in this process, but as Jason  
4 | mentioned, you made an assumption that no additional reactors would  
5 | permanently shutdown. Your resourcing and scheduling is predicated  
6 | on that.

7 |                   And, since you made that assumption, we've had  
8 | some premature shutdowns and we're not a financial or market  
9 | regulator and I have no crystal ball, but I think that we all have to admit  
10 | that, unless changes happen with the markets as they function right  
11 | now, it is, at least, a medium level of probability that we would, in the  
12 | next 18 to 24 months, perhaps, have additional reactors notifying us of  
13 | a change in their operating plans.

14 |                   So, is the staff, at least, do you feel your process would  
15 | allow you, given the diversity of comment that you're getting and will get  
16 | until the close of the period on Friday, do you feel that your process  
17 | allows you to kind of reflect on that lesson learned about a broad scope  
18 | rulemaking could potentially put us exactly where we were in 2000.

19 |                   It's almost eerie to read those papers from 2000 that  
20 | say, you know, nobody's going to shutdown and we're not going to have  
21 | another wave of shutdowns so no one would benefit from this rule.

22 |                   For people in decommissioning now, those who might  
23 | announce in the next little bit, the likelihood that they would benefit from  
24 | the process established in a new rule, given how long that takes, is  
25 | unlikely.

1                   So, we might have to process this through the  
2 regulating by exemption that's been referred to for these and some that  
3 come in the next little bit.

4                   And, then we'll be, maybe I'm worried, right where we  
5 were, where we said, it's not valuable to do a rulemaking now because  
6 we've processed these all with the current process.

7                   So, do you think that you would at least be opening to  
8 evaluating any opportunity to bifurcate some of the near-term things in  
9 a more expedited rulemaking and then take the broader issues in a kind  
10 of parallel but maybe segregated rulemaking?

11                   Is it too early for you to say -- all I'm asking you to say  
12 is, is that something that you think you're going to struggle with is the  
13 sequencing of this?

14                   MR. JOHNSON: So, maybe I'll start and Meena can  
15 weigh in.

16                   So, we would certainly, as a priority matter, deal with  
17 the decommissionings that are in front of us. And, we think we're  
18 resourced to do that.

19                   If there was to come a time when the Commission  
20 would say, let's bifurcate, if you will, let's go with a narrower scope rule  
21 to enable the staff to move forward in a way that doesn't impact and  
22 then come back at a later time, we could accommodate that.

23                   If the Commission would elect to go with the rule as  
24 broadly scoped as you could imagine, we would prioritize our resources  
25 to deal with those that are working through and then we would come

1 back to the Commission if we needed additional resources.

2 So, I think we could be flexible, Commissioner, in either  
3 approach, depending on how the Commission would determine we  
4 should proceed.

5 COMMISSIONER SVINICKI: Well, and I appreciate  
6 your acknowledgment, Mike. The work that will go on for the  
7 decommissionings under way, that will have to continue. It simply has  
8 to continue in parallel with the scope of any rulemaking we do.

9 I'm just a little worried that in our Project Aim  
10 environment and having to really look at activities, that we would end  
11 up, once again, putting off capturing in a rule improvements to this  
12 process because we're going to get so busy with the work that has to be  
13 done because that's simply part of our mission and we have to continue  
14 processing exemptions and license amendments.

15 So, I think, you know, I'm a pragmatist about some of  
16 this stuff and, if we end up there, I don't want the replay of 2000 all over  
17 again.

18 So, I would urge you to look at flexibilities in how we  
19 can proceed and maybe be a little creative in your recommendations.

20 Thank you.

21 CHAIRMAN BURNS: Commissioner Ostendorff?

22 COMMISSIONER OSTENDORFF: Thank you,  
23 Chairman.

24 Thank you all for your presentations.

25 I thank Commissioner Baran for proposing the

1 meeting.

2 I kind made a similar philosophical comment, as  
3 Commissioner Svinicki, looking, Meena, at your slides 12 and 14, I  
4 appreciated that your comment on slide 12 was that the regulatory  
5 framework we have in place is effective.

6 And then on slide 14, I see that the significant  
7 efficiencies gained from experience.

8 I recognize in the next two panels, we'll have significant  
9 external stakeholder input, which is a good thing.

10 I'm also struck by the, you know, the notion that we  
11 need to make sure we understand what problem -- what is the problem  
12 we're trying to fix here?

13 And, if I understand correctly from yours and Jason's  
14 testimony, that there's no safety concern you currently have with the  
15 existing security exemption and emergency preparedness exemption  
16 piece. Is that correct?

17 MS. KHANNA: That's correct.

18 COMMISSIONER OSTENDORFF: And, I understand  
19 the objects of, you know, the objects of exemptions. I don't -- that  
20 doesn't really bother me that much as a realist of how things work.

21 So, I guess the one question I'll ask, with that predicate  
22 laid down to Jason is, if there's no safety issues with the current security  
23 exemptions in the EP exemption process, how will you look at other  
24 changes to the decommissioning framework that might come up in this  
25 process?

1 MR. CARNEAL: Sure.

2 For changes that were outside of the exemption and  
3 license amendment procedures that we've been going through, and  
4 even considering those, we would be analyzing those under 50.109 for  
5 a backfit. And, we would also be completing a comprehensive  
6 regulatory analysis for any changes that we're considering as part of  
7 this rule.

8 And, as part of the update to the regulatory analysis,  
9 we are doing a preliminary regulatory analysis at the regulatory basis  
10 stage, so we're trying to get that information as early in the process as  
11 we can.

12 So, that's how we'd be looking and evaluating changes  
13 outside what we've already seen.

14 COMMISSIONER OSTENDORFF: Meena, did you  
15 want to say --

16 MS. KHANNA: I just do want to add, when we talk  
17 about the security and safety issues, because of the level of effort and  
18 work that we've done with the five recent decommissioning plans, we  
19 believe that, you know, the bulk of the security issues, I would say all of  
20 the security issues and the safety issues, we feel like we've addressed  
21 them pretty comprehensively.

22 We've gained a lot of experience from doing the first  
23 one, Kewaunee. And I think we've addressed lessons learned.  
24 We've made our exemptions more robust as we've done each of the  
25 reviews for the EP exemptions as well.

1                   So, I would just say that I just wanted to indicate that,  
2 from a security and safety perspective, we feel like we've really  
3 addressed those issues quite well through the reviews that we've done.

4                   COMMISSIONER OSTENDORFF: Well, I was  
5 pleased to see in slide 14 the lessons learned and the efficiencies being  
6 achieved from one to the next to the next. So, well done to you and  
7 your staff.

8                   Thank you.

9                   CHAIRMAN BURNS: Thank you, Commissioner.  
10 Commissioner Baran?

11                  COMMISSIONER BARAN: Thanks.

12                  Mike, I just have a couple of quick questions.

13                  NRC issued an Advance Notice of Proposed  
14 Rulemaking seeking public comment on a wide range of issues related  
15 to decommissioning.

16                  And, we know stakeholders have strong views on a lot  
17 of these issues and they want to know that their views will be seriously  
18 considered.

19                  So, my question is really pretty simple. Is the staff  
20 committed to looking at the ideas and suggestions submitted by  
21 stakeholders with an open mind?

22                  MR. JOHNSON: Commissioner, absolutely.

23                  In fact, I think we'll find the situation in which a number  
24 of the comments could provide opportunity or things that we would  
25 consider where we might be able to identify additional efficiencies or

1 effectiveness regardless of whether the Commission would move  
2 forward with a broad rulemaking or a rulemaking at all.

3 So, we look very much forward to the comments that  
4 we will be provided and consider those in the regulatory process.

5 COMMISSIONER BARAN: I appreciate that.

6 Let me just ask a question related to timing. The  
7 staff's Aiming to complete the decommissioning rulemaking by the end  
8 of 2019, as we've noted.

9 My understand is that emergency preparedness is  
10 probably the aspect of this rulemaking that will take the longest time to  
11 complete. It's the long pole in the tent, is that right?

12 MR. JOHNSON: Yes.

13 COMMISSIONER BARAN: Okay, thank you.

14 CHAIRMAN BURNS: Okay, thank you,  
15 Commissioner.

16 And, I want to thank the staff panel and we'll transition  
17 to our first external panel now.

18 Thank you.

19 Well, thanks, everyone. I want to welcome our  
20 external panel, first external panel that includes representatives of  
21 various states that are either have plants undergoing decommissioning  
22 or have undergone decommissioning or will undergo decommissioning.

23 And, the first panel includes Paul Baldauf, Director of  
24 Division on Energy Security and Sustainability in the New Jersey  
25 Department of Environmental Protection.

1 Dr. Robert Weisenmiller, Chair of the California Energy  
2 Commission and California State Liaison Officer. Welcome.

3 Teresa Engelhart, Radiological Emergency  
4 Preparedness Supervisor for Wisconsin Emergency Management.

5 Senator Dan Wolf of the Commonwealth of  
6 Massachusetts.

7 And, Dwight Dudley, Florida State Representative.

8 Welcome all and I think we'll start with Mr. Baldauf with  
9 your presentations. And, we'll have the presentations and then open a  
10 period for questioning.

11 Thanks.

12 Mr. Baldauf?

13 MR. BALDAUF: Thank you, Chairman Burns.

14 My name's Paul Baldauf, I work for New Jersey  
15 Department of Environmental Protection. I'm the Director of the  
16 Division of Energy Security and Sustainability. I have oversight of New  
17 Jersey's Radiation Protection Programs and have also been the State  
18 Liaison Officer to the NRC for the past ten years.

19 I'd like to thank the Commission for inviting New Jersey  
20 to share our perspective on the ANPR for decommissioning power  
21 reactors.

22 We fully support NRC pursuing rulemaking in this area  
23 because it will provide predictable and consistent actions by licensees  
24 and transparency to all stakeholders.

25 Our primary concern about decommissioning of

1 nuclear power reactors is to ensure the emergency regulatory structure  
2 provides a robust emergency planning and physical security program  
3 after a reactor ceases operation.

4 New Jersey's technical comments on the ANPR are  
5 quite detailed. So, I'd like to focus this morning on four general areas,  
6 offsite emergency planning, physical security, backfit analysis, and  
7 state stakeholder participation.

8 Next slide, please?

9 Offsite emergency planning, EPA Evacuation  
10 Protective Actions Guide Levels were established as a guideline for  
11 emergency planning and were never intended to be enforced as a  
12 regulatory threshold for licensees to establish offsite emergency  
13 response plans.

14 In addition, regardless of the regulatory threshold, we  
15 do not believe beyond design basis accident scenarios have been fully  
16 vetted by the NRC when considering whether a licensee must continue  
17 to conduct offsite emergency planning.

18 A tiered approach to offsite emergency planning is  
19 most prudent. There would be no change in EP requirements from  
20 cessation of operations until, say, 15 months after that point.

21 And then, a reduced program would apply from 15  
22 months until all fuel is in dry cask storage.

23 And, for instance, instead of having, say, a ten mile  
24 EPZ, maybe that EPZ in that interim period would be five miles or two  
25 miles and only portions of the operating EP requirements would remain.

1 Remember, risk is both calculated and perceived. As  
2 long as an offsite release is possible, regardless of magnitude,  
3 appropriate pre-planned capabilities must exist.

4 Once all fuel is in dry cask storage, only a very limited  
5 EP program would be warranted at that point.

6 Next slide, please?

7 Physical security, physical security can be reduced in a  
8 very similar tiered manner I just presented for emergency planning.  
9 Robust security must remain until all spent fuel is removed from the fuel  
10 pool and stored in dry casks.

11 With few exceptions, spent fuel pools represent the  
12 largest single inventory of radioactive materials in any state. At that  
13 point, the size of the security footprint and other security measures  
14 could be modified as appropriate for the storage of high level  
15 radioactive waste.

16 Next slide, please?

17 Backfit analysis, it should be expected that  
18 inconsistencies will arise between the final rule and the exemptions that  
19 have been approved and implemented at sites under the interim  
20 process.

21 This is positive news and demonstrates that the rule  
22 process encourages the reevaluation and the reassessment of past  
23 practices. The end result is enhanced protection of public health and  
24 safety.

25 NRC will be challenged to address these deviations for

1 sites that are in decommissioning at the time of the final rule adoption.  
2 However, all regulatory programs address and resolve similar  
3 challenges with new rules every day.

4 Backfit analysis should never be the basis for an  
5 organization to remain static, especially in the world of nuclear power.

6 Next slide, please?

7 State and stakeholder participation, the relationship  
8 between the licensee, the community leaders and state and local  
9 agencies that were formed during operations should continue through  
10 decommissioning.

11 Decommissioning activities impact all aspects of the  
12 local community. A transparent process and informed stakeholders is  
13 key.

14 We believe a community advisory panel should be  
15 strongly encouraged by the NRC. However, the structure of that panel  
16 should be left to the state, local government officials, the licensee and  
17 the interested stakeholders to jointly determine the best methods to  
18 ensure effective community engagement.

19 We do not believe a one-size-fits-all community  
20 advisory panel would work.

21 New Jersey looks forward to continuing the productive  
22 working relationship that we've had with the NRC during operations as  
23 the units move toward the process of decommissioning.

24 Some state organizations like the New Jersey  
25 Department of Environmental Protection have agreements with NRC to

1 participate in site inspections. These agreements must continue to  
2 allow site access and participation in the inspections as we move  
3 through decommissioning.

4 To ensure public safety during decommissioning, New  
5 Jersey will continue operation of our 24/7 radiological surveillance and  
6 telemetry system. We'll continue routine environmental monitoring  
7 and sample collection and analysis and the operation of our  
8 independent dosimetry program.

9 Last slide, please?

10 My contact information is above and I'd just like to  
11 thank you one more time for the opportunity for us to share our  
12 perspectives and when our comments are submitted in the next couple  
13 of days, you'll see the full detail to them.

14 Thank you.

15 CHAIRMAN BURNS: Thank you, Mr. Baldauf.

16 Dr. Weisenmiller?

17 DR. WEISENMILLER: Good morning.

18 I'm Bob Weisenmiller. I am the Chair of the California  
19 Energy Commission and also the State's Safety Liaison.

20 California Energy Commission is about 40 years old.  
21 It was -- the original legislation was signed by then-Governor Reagan.  
22 And, implemented by then-Governor Brown when he was voted in as  
23 Governor.

24 Our responsibilities are varied, but in terms of the three  
25 things of relevance to you, one is, we were responsible for thermal

1 power plant setting in California over 50 megawatts including  
2 decommissioning, planning and forecasting and also contingency  
3 planning.

4 I appreciate the opportunity to be here today and  
5 discuss these issues.

6 If you'd go to the next slide?

7 Basically, our position is very similar to I think what  
8 you're going to hear from most states that we really appreciate the NRC  
9 taking a further examination of this issues and, essentially, trying to  
10 figure out alternatives to the current exemption process.

11 And, essentially, looking at the issues on  
12 decommissioning once more in a more systematic fashion.

13 Obviously, some sort of tiered approach makes sense  
14 as you look at the initial shutdown. If you look at once everything  
15 moves out of spent fuel and then eventually, hopefully, when all the  
16 spent fuel is moved offsite.

17 So, again, there's a spectrum there, the risks are much  
18 different as you go through that. And, it seems like there's a chance to  
19 think about the variation there.

20 Also, in terms of one of the things which we're certainly  
21 looking forward to is more of a role of state and local governments.

22 We have found the citizens engagement panel for San  
23 Onofre to be pretty helpful. Obviously, it's a difficult issue. Many  
24 citizens in that area would like the spent fuel to be moved some place  
25 else, if not any place else.

1                   And, basically that is a -- it complicates things going  
2 forward. But, again, it's useful to have that dialogue with the public.

3                   I think in terms of one of the reasons for really  
4 emphasizing this more is that, indeed, you're going to see more and  
5 more plants coming in for decommissioning, at least some time sooner  
6 or later, they all will be here. So, it's good to think about that end state.

7                   California, I know, is unusual in many respects. But,  
8 as you know, we have two operating reactors at Diablo Canyon. We  
9 have a number of plants that have gone through decommissioning of  
10 once various levels. Certainly Humboldt, Rancho Seco, GE, San  
11 Onofre 1 and now we're proceeding on 2 and 3.

12                   So, again, it's something which, certainly, we all face.  
13 And, as you go forward, it's really important to really establish public  
14 confidence in where we're heading.

15                   It is, again, this perception of not only what the risk is,  
16 but trying to really get to the perceptions. And, I think basically  
17 communication is part of that.

18                   If you go to the next slide, it emphasizes a couple of  
19 things about California, which I would say is more or less the geology of  
20 California.

21                   As you can tell, most of our reactors have been along  
22 the coast. The coast is a pretty seismically active area. So, the  
23 Rancho Seco is a little bit inland.

24                   Certainly, by coastal, in California, we have legislation  
25 sort of trying to preserve the coast for higher value uses. But, at the

1 same, certainly, we're not contemplating sort of interim waste storage  
2 facilities. But, at the same time, you know, there's the reality of the  
3 seismic issues.

4 And, if you go to the next slide, that's sort of gives you a  
5 sense of what that means in terms of reactors in California, again, that  
6 they can be somewhat unusual.

7 I would note that, in California, we have a Seismic  
8 Safety Commission and it estimates that within the next 30 years,  
9 there's a 99.7 percent chance of a 6.7 or greater earthquake. And,  
10 within the next -- and a 46 percent chance of an earthquake 7.5 or  
11 greater.

12 So, certainly, you know, we are in seismic country and  
13 that has implications as people go -- it's certainly had implications on  
14 the permitting and operation of the plant and certainly will have  
15 implications as we go into decommissioning.

16 Again, I'm certainly looking forward to continuing the  
17 partnership we've had, certainly on the operating plants as we go into  
18 decommissioning and encourage you to look at this as an opportunity  
19 for a broader partnership with the local communities and to really  
20 engage them meaningfully in these decisions.

21 So, thank you, again, for the chance to be here.

22 CHAIRMAN BURNS: Thank you, Dr. Weisenmiller.

23 Ms. Engelhart?

24 MS. ENGELHART: Thank you for inviting us to  
25 present at this meeting.

1 I am filling the shoes of our State Liaison Officer, so I'll  
2 do my best to answer any questions.

3 I guess the first thing I'd like to say is that I'll start out by  
4 saying that we got a phone call announcing that Kewaunee Power  
5 Station would be shutting down the day before I think it was publically  
6 announced. And, that was the very first inkling that we had that  
7 anything was going on. So, it was rather abrupt.

8 And, then the last day of production at the plant was  
9 May 7, 2013. So, there was only a couple of months between the time  
10 they announced it and the time that they did shutdown.

11 The fuel was removed from the reactor vessel just a  
12 week later. So, it was all done very quickly.

13 Wisconsin compiled a list of questions and issues that  
14 we thought we needed to deal with immediately after they announced  
15 their shutdown in late October. And, those questions including will EP  
16 staff remain on site?

17 I mean, we just had no basis for knowing any of these  
18 things.

19 What about budget? How long would the budget be in  
20 place? And, what would we do with our hostile action planning?

21 We were currently working with the plant to put a  
22 hostile action plan in place and prepare for an exercise.

23 Next slide?

24 We did have a rather unique situation with Kewaunee  
25 Power Station. The Point Beach Nuclear Plant is only four and a half

1 miles away. The two plants shared EPZs. They had overlapping  
2 EPZs. They shared sirens. They shared facilities and they shared  
3 responsibilities for training, printing, public outreach.

4 So, there were a lot of questions that were kind of  
5 unique to just those two plants.

6 At the -- FEMA also conducted a meeting in early  
7 February at Region V in Chicago and that meeting did include state and  
8 local, NRC was there, FEMA was there and a plant transition team was  
9 there.

10 And, at that meeting in February, everyone wanted to  
11 know, including FEMA, what were the plans for the shared facilities?  
12 How was Point Beach going to take over a facility that was currently  
13 owned by Dominion or Kewaunee Power Station? How were they  
14 going to continue to maintain the training plan that they had?

15 And, it wasn't until much later that any of those issues  
16 were worked out. February was just very soon, way too early to have  
17 any answers to those questions. There was a very, very large learning  
18 curve.

19 Kewaunee also had an exercise scheduled for June of  
20 2013 and one of the questions was, what do we do about that exercise?

21 Well, our solution at the time was just to request that  
22 FEMA let us reschedule it to October of that year. That bought us a  
23 little time to get that question answered and actually to allow for the  
24 actual shutdown to occur since that didn't happen until May.

25 And, that way, NRC and FEMA could get together and

1 get some of those questions answered and make some decisions.

2 FEMA Headquarters eventually determined that after  
3 the shutdown that an exercise was not required. So, we were able to  
4 cancel that one in 2013.

5 FEMA and the utility also debated about scenario  
6 during that time. Once the fuel had been removed from the reactor,  
7 the plant maintained that there was no possibility of a regular plume  
8 release. But, FEMA was indicating that, well, you're still under your  
9 current emergency plan and still under the exercise requirement, so  
10 you will have to, I guess, pretend to have a scenario that will meet the  
11 offsite requirements for exercising.

12 So, that was one of the things that the cancellation of  
13 that 2013 exercise resolved.

14 Next slide?

15 As far as the Advance Notice of Proposed Rulemaking,  
16 licensees no longer need an offsite emergency plan. But, we feel that  
17 the relationship still exists for drills, emergency action levels and  
18 training.

19 We still have, you know, some relationships going.  
20 We still talk to Kewaunee Power Station all the time and they still attend  
21 all of our meetings.

22 We still have Memorandums of Understanding in place  
23 for local law enforcement, emergency medical services, county  
24 emergency management, fire, hospitals, townships and, in this case,  
25 they still have an MOU with Point Beach Nuclear Plant.

1                   Offsite involvement is now to be covered under our  
2 comprehensive emergency plans. We do have similar relationships  
3 with other private sector entities, but there is still a regulatory flavor to  
4 the activities that we're involved in with Kewaunee.

5                   We implemented a revised NARS form. We take part  
6 in quarterly communication drills. We participate in an annual drill.  
7 They provide us with an EAL review. We participate in training and et  
8 cetera.

9                   These are things the utility needs to do, but they can't  
10 be done without our involvement.

11                   There are still planning issues such as site access for  
12 first responders and the public inquiry hotline that we maintain should  
13 be there in case any events would happen at the plant because an  
14 event at this point would be media event or a public event.

15                   Next slide?

16                   While fuel rods are stored in the spent fuel pool, there  
17 is a slight chance of an accident, possibly resulting in an Alert  
18 Emergency Classification Level.

19                   Once the fuel is removed from the reactor vessel,  
20 some requirements could be automatically exempted such as  
21 plume-based exercises.

22                   And Alert in our state is a trigger for the state and the  
23 counties to activate their emergency operations centers and potentially  
24 activate a joint information center, a public inquiry hotline, and to put  
25 field teams on standby.

1                   If there can't be a release, there may not be a need for  
2 a full scale exercise. And, that was one of the exemptions that took  
3 kind of a long time to get to.

4                   So, I think there's a possibility that maybe there could  
5 be an expedited process put in place for that.

6                   Once the fuel is moved to dry cask storage, it becomes  
7 more of a security matter. Until the fuel is removed from the site,  
8 security forces will be required and, again, offsite collaboration will still  
9 be necessary.

10                  The offsite collaboration includes rapid site access for  
11 local law enforcement and pre-planning for a response to that.

12                  All cybersecurity efforts should continue for any plant  
13 systems remaining in place.

14                  And, the last slide?

15                  Until exemptions are granted, clear guidance  
16 regarding conducting exercises and open exercise issues should exist.  
17 We did have an open exercise issue at the time that Kewaunee  
18 announced their shutdown and it took a little bit of time for FEMA to  
19 determine what needed to happen with that.

20                  Eventually, it was just dropped because there was no  
21 way for us to re-demonstrate that without the proper participants in  
22 place.

23                  The 50.54(t) review of emergency planning program  
24 elements should continue. We do receive information from our plant  
25 liaison but it's not in an official capacity.

1                   We receive inquiries regarding Kewaunee Power  
2 Station and we should be one of the organizations that can address  
3 those inquiries.

4                   The state's role should be enhanced in the  
5 decommissioning process as long as -- as well as the local units of  
6 government. And, we recommend that a community engagement  
7 panel should be mandatory and should have state and local  
8 representation on it.

9                   And, that's all I have.

10                  Thank you.

11                  CHAIRMAN BURNS: Thank you very much.  
12 Senator Wolf?

13                  MR. WOLF: Thank you very much. And I just want  
14 to say that in addition to being the state senator, I've been flying  
15 airplanes in this area for 40 years around where this nuclear power  
16 plant is, and started an airline that now operates 93 airplanes. I've also  
17 been a licensed mechanic for the last 35 years.

18                  So I just want to put that as a perspective overlay  
19 because when we have the Q&A, I think that offers an interesting  
20 perspective as well. So I'm going to race through these because a lot  
21 of what I have is going to be supporting and in addition to what you've  
22 heard from my colleagues here.

23                  The decommissioning goals from a state perspective  
24 from the Commonwealth of Massachusetts: first and foremost,  
25 obviously, safe removal of fuel from the reactor vessel, the transfer of

1 fuel from the spent fuel to dry cask - I cannot emphasize that enough.  
2 From a pilot perspective, from a mechanic perspective, I think that the  
3 Nuclear Regulatory Commission way underestimates the difference  
4 between wet storage and dry storage. And if I emphasize anything  
5 here today, I think it is regulations that expedite the transition of fuel  
6 storage from wet to dry - cleaning up the site, obviously, and making it  
7 productively used consistent with community goals, local community  
8 goals. Give the public, state, and local authorities a real voice in the  
9 public process.

10 Continue appropriate monitoring, emergency  
11 preparedness, and evacuation planning during the process.  
12 Obviously, that will be stepped up and stepped down as the process  
13 occurs and as the safety and the security issues change.

14 Ensure that the economics of decommissioning reflect  
15 best public policy. And economics, you're going to see I'm going to  
16 return to that as a very important part of this. Suggested regulatory  
17 approach, two slides forward, please. Thanks. One more, next slide,  
18 okay, thanks.

19 Suggested regulatory approach for decommissioning:  
20 we would like to see that the licensee be required to prepare a more  
21 detailed site specific Post-Shutdown Decommissioning Activities  
22 Report that includes site characterization, plans for site remediation,  
23 and a description of the end use of the site, plans for spent fuel  
24 management, proposed timeline for the decommissioning activities,  
25 safety and emergency preparedness plans that reflect the site specific

1 risks at various stages of decommissioning --

2                   The reason I keep going back to site specific is if you  
3 look at the Pilgrim Nuclear Plant and you look at the district that I  
4 represent, it's very unique in the geography there, so all of our citizens  
5 have very different challenges getting away from that plant in the event  
6 of an event and cost estimates for decommissioning and spent fuel  
7 management. Next slide, please.

8                   Suggested regulatory approach for decommissioning:  
9 require the formation of a community engagement and advisory panel.  
10 I think you're hearing that consistently that it's very important that state  
11 and local communities have a real voice and real input.

12                   Require public hearings, opportunities to comment,  
13 etcetera. Require the NRC to analyze long-term environmental  
14 impacts of the shutdown plan prior to approval. I think there's a lot of  
15 focus on the short-term, but I think there also needs to be  
16 understanding, and included in the approval of the process, what the  
17 long-term impacts are.

18                   Require local and state approval and NRC approval of  
19 the final PSDAR, and any requests to change or update it going  
20 forward. So there's the approval initially, but then any changes also  
21 need local input, and we think there should be a process to facilitate  
22 that. Next slide, please.

23                   Suggested changes to the Decommissioning Trust  
24 Funds: we think that there should be a real look at what the monies that  
25 have been put into trust ultimately can be used for, so we think there

1 should be a broadening of the definition of legitimate decommissioning  
2 activities to include site restoration and spent fuel management.

3 We think that they should be used, these funds should  
4 be used to expeditiously and quickly move the fuel from wet storage to  
5 dry storage, and we should make sure that the funds are prioritized in  
6 that way, and we should not allow the funds to be used for corporate  
7 interests, and I think that would be a very dangerous precedent if we  
8 allowed that to happen. Next slide, please.

9 Suggested changes to the Decommissioning Trust  
10 Funds: to the extent possible, ensure that the parent company of the  
11 LLC that manages a singular station be held accountable for the  
12 clean-up costs. We are very concerned the corporate structure here is  
13 creating a veil, or isolating, or insulating the corporate interests at the  
14 top from site-specific liability, and we think that really needs to be  
15 looked at to the extent that it can.

16 Clarity that non-radiological issues and issues  
17 unrelated to operational safety, such as site restoration,  
18 non-radiological cleanup, redevelopment planning, etcetera, are  
19 subject to state and local oversight, and are not preempted.

20 We certainly understand and honor the preemption  
21 that we have on nuclear issues here, and on radioactive issues, but we  
22 really think that as much local oversight relative to site restoration and  
23 other non-nuclear issues should be there.

24 So just to look at the Pilgrim Plant, roughly there are  
25 \$900 million in the current trust fund. We think right now that the

1 | estimated costs are about \$1.4 billion. We have actually - I have  
2 | actually filed legislation, a piece of legislation in Massachusetts that  
3 | would require the operator put another \$25 million a year into that fund  
4 | to bridge that gap because right now it looks like we're going to be about  
5 | \$500 million short. Next slide, please. Next slide.

6 |                   Okay, there you see based on certain assumptions  
7 | made relative to the growth of the fund certain return rates, and you see  
8 | there anywhere from 3.5 to 5 percent along the bottom axis, and the  
9 | increase or escalation of the decommissioning costs along the other  
10 | axis that we could be - have a shortfall of anywhere on the low end of  
11 | \$4.4 billion, anywhere on the high end of \$58.2 billion, and that  
12 | concerns us greatly relative to the payment of this. Next slide, please.

13 |                   And the final slide just shows the widening gap over  
14 | time, should we go out to the 60 years with the safe store option, of  
15 | what the shortfall could be if we don't really manage the trust fund  
16 | adequately and make sure that the reserves continue to be built up.

17 |                   Thank you, Mr. Chairman. Thank you to the  
18 | Commissioners.

19 |                   CHAIRMAN BURNS: Thank you. Representative  
20 | Dudley, welcome.

21 |                   MR. DUDLEY: Good morning, Dwight Dudley here,  
22 | state representative from Florida. Just to clarify, I am not representing  
23 | any official position of our state other than speaking on behalf of  
24 | consumers that have been hurt deeply by the process that is occurring  
25 | in Florida with regard to Crystal River III. I liked very much Senator

1 Wolf's presentation. I think he covered all of my points, but I'll go  
2 forward. The first slide?

3 We'll whip past the history of Crystal River III because  
4 you all know so much more about that than anyone. But in 2009 - let's  
5 see, go to the shutdown slide, please.

6 In 2009, Crystal River III was taken offline so that two  
7 steam generators could be upgraded. In an attempt to save \$15  
8 million, the utility decided to perform the upgrades themselves. They  
9 botched it. Three basketball court sized delaminations of the  
10 containment building occurred.

11 You know, 34 other plants that successfully replaced  
12 steam generators, they had used, I guess, Sargent & Lundy, Bechtel,  
13 but you know, I guess a case of beer and a wild weekend, upgrading is  
14 not a good idea.

15 So cost to ratepayers, \$1.3 billion for repairs.  
16 Operations, maintenance, and construction were going to cost  
17 ratepayers - slide - \$450 million for upgrades under Florida's Nuclear  
18 Cost Recovery Statute, as much as \$300 million per year for  
19 replacement fuel, \$1.5 billion for natural gas plant replacement  
20 generation lost by the closure of Crystal River III.

21 The community affected: the metro area surrounding  
22 Crystal River topped the nation in GDP lost in 2014. 400 plant workers  
23 lost their jobs. Duke Energy's tax bill dropped from \$35 million to \$13  
24 million. A quarter of the county's general revenue fund disappeared.

25 Dire consequences for the schools, safety, and public

1 services, and now there is in this beautiful area of Florida what they call  
2 the nuclear stigma, is affecting the economy and having a real impact.

3 Duke collected \$100 million from the original to the  
4 plant's steam generators. In addition, they were able to keep 7 percent  
5 from a subsequent \$100 million project to stabilize the broken  
6 containment wall. All of these were granted by the PSC. They have a  
7 very close relationship with the industry.

8 And costs: \$1.18 billion in 2013 dollars, \$100 million for  
9 a dry cask fuel storage site. The decommissioning fund had \$780  
10 million in it. The Crystal River III decommissioning fund held at one  
11 point \$400 million in 2000. It rose to \$580 million in 2007, and dropped  
12 sharply to \$417 million in 2008 during the financial crisis. The fund will  
13 grow to an estimated \$5.9 billion by 2076. You know, we won't get to  
14 see that personally, but.

15 So with regard to decommissioning funds, we think  
16 more needs to be done to secure the public. Require licensees to  
17 have adequate decommissioning funds upon closure. Prohibit funds  
18 from being used for purposes other than cleanup of radiological  
19 contamination as Senator Wolf referred to, like lobbying activities or,  
20 you know, any number of different other ways to spend money.

21 We need to proactive - suggest that you proactively  
22 monitor the expenditures. Ensure that the unexpended funds to be  
23 released to ratepayers. We know that due to a GOA report, 27 out of  
24 the 104 decommissioning funds had a combined shortfall of \$2.4 billion.

25 The NRC's decommissioning funding formula may be

1 | outdated since it was last revised in 1988 and is based on two studies  
2 | published in 1978 and '80 that used technology costs and other  
3 | information available at that time.

4 |           The exemption process has been used to undermine  
5 | the financial viability of decommissioning funds. Entergy Vermont  
6 | Yankee Plant intends to use funds to pay \$600,000 in local taxes, legal  
7 | and lobbying expenses, costs for fuel transfer, and guarding of  
8 | high-level waste.

9 |           Reports are only required once every two years, and  
10 | the NRC seems to be concerned only with whether or not licensees are  
11 | on track financially, or so it seems. There is no guarantee that  
12 | ratepayers will be paid back unused monies, \$5.9 billion versus \$1.8  
13 | billion.

14 |           So the big elephant in the room really is from most  
15 | Floridians, and particularly those who live in or around the Crystal River  
16 | III Plant, that this huge property and this area is stigmatized and can be  
17 | held as it is for the next 60 years, is not a good thing, and so I, as  
18 | evident by my presentation, am not an expert in these matters.

19 |           I'm just carrying forth the complaints of the people by  
20 | and large that feel powerless in this matter, and that we go forward with  
21 | greater consideration for the economies of these communities, and the  
22 | regulations that are applied to do better by the people, to ensure that  
23 | the monies are adequate to maybe decommission more quickly and the  
24 | like.

25 |           So we have our host of issues with some of the plants

1 in the state. And I know that this isn't the time for that, but I'll just touch  
2 on the issues down in the Miami area, Turkey Point recent findings of  
3 tritium in the Biscayne Bay.

4                   These are huge issues, and we believe the NRC needs  
5 to have a greater role, not a smaller role, that deregulation is a horrible  
6 idea if that's a - you know, a main impetus, that that should be greatly  
7 reconsidered, and that we can do much better than we're doing today.  
8 Thank you.

9                   CHAIRMAN BURNS: Okay, thank you all for your  
10 presentations and we'll start the questioning with Commissioner  
11 Svinicki.

12                   COMMISSIONER SVINICKI: Thank you all again for  
13 being here. I realize that you have a lot of other responsibilities, so I  
14 appreciate your time and your perspectives that you've shared here  
15 today.

16                   I think that I heard an explicit acknowledgment from  
17 some of you that either the states you represent or the constituents that  
18 you represent will be submitting comments, or some of you will be  
19 submitting comments. The public comment period does not close until  
20 Friday.

21                   I look forward to spending some time in detail with that.  
22 I know that we posed a lot of questions in the federal register notice, so  
23 I acknowledge that what we're discussing here today is really just some  
24 high-level perspectives.

25                   But also as I reflect on your presentations, the first

1 thing I'm reminded of, having been to nearly every facility that was  
2 mentioned here today by any of you, including Humboldt Bay, Rancho  
3 Seco, and GE Vallecitos, so I've been to a number of the  
4 decommissioning sites, I'm just reminded by listening to your  
5 presentations of really how intensively site-specific a lot of these issues  
6 are.

7           The second thing I'm reminded of, or maybe have a  
8 greater appreciation for based on your presentations, is how your  
9 connection with these facilities, which we think of as just regulated  
10 entities, are both broad and deep. It's the people who work there. It's  
11 the communities around the plants. It is of course enduring legacy  
12 issues that, you know, either representing the constituents nearby, or  
13 state agencies.

14           What we're talking about today in this proposed scope  
15 of this rulemaking is really just one narrow aspect. These are entities  
16 that operate or have operated in your communities and in your states,  
17 and you have other economic relationships with them, perhaps state  
18 permitting and other things that goes on, so that's the other thing that  
19 I'm reminded afresh of how broad and deep all of your roles are when it  
20 regards these facilities.

21           I was concerned that mentioning preemption today  
22 would be discourteous, and Senator Wolf helped me so much by just  
23 explicitly taking it head on. Having two lawmakers at the table, and on  
24 this side of the table, three people who spent some aspects of their  
25 career working for lawmakers, I hope it's not remiss for me to mention

1 that as a federal agency, we must, and therefore will comply with state  
2 law. And under existing federal law, we do not have an unlimited  
3 ability to relinquish our regulatory authority over certain things.

4 And I'm not suggesting that any of you were  
5 advocating for that. You certainly in your other capacities can  
6 advocate for federal law changes, but we have to operate within that,  
7 and I just don't want to set an expectation that there is an unlimited  
8 ability to modify this process.

9 That being said, I think that there are a lot of areas,  
10 you've touched on many of them today, that do provide us opportunities  
11 to examine maybe issues of established commission policy. We can't  
12 change the law. You've heard our NRC staff talk about encouraging  
13 good practices, the other aspect of our complying with laws, that we  
14 don't have an unfettered ability to mandate everything we think is a  
15 good management practice.

16 We have to have a sufficient justification for making  
17 things compulsory. But I think within that, as certainly as was  
18 responded to Commissioner Baran's question, our staff will engage in a  
19 very genuine look at this area. It hasn't been examined.

20 And I made reference to our work in 2000, and as I was  
21 reading some of that stuff last night, I think of that as being so current.  
22 Well, that was 16 years ago. As the years go by, it's amazing how  
23 you're humbled by how fast it's going by. So I do look forward to  
24 continuing this engagement.

25 Ms. Engelhart, you mentioned your specific Wisconsin

1 | experiences where you had to handle a lot of the emergency  
2 | preparedness issues on kind of an ad hoc basis, but I would  
3 | compliment you, and I think the licensee to the extent NRC contributed  
4 | to that. I guess I'll give us a pat on the back as well.

5 |                 Because I think although that's not maybe the optimal  
6 | way to address those, you seem to have been able to handle each of  
7 | those reasonably. That being said, we don't want to continue to have  
8 | to use ad hoc processes. As you heard from my comments with the  
9 | NRC staff if you were here, I don't want us to be in a place where we  
10 | once again handled decommissionings through an imperfect process  
11 | and we forgo the benefits of things.

12 |                 I'm encouraging the staff to look creatively at scope,  
13 | and timing, and pacing, what I'll call maybe sequencing of consideration  
14 | of issues that I, as I listen to you, would just very much like some of the  
15 | decommissionings you're talking about now to benefit from some of  
16 | this.

17 |                 But, you know, I'll just admit candidly to you, federal  
18 | rulemaking is not a quick activity, and I think that would be a missed  
19 | opportunity for all of us if we couldn't capture anything in the near term.  
20 | I do also think that the staff in examining the public comment record will  
21 | probably find things that don't require rulemaking.

22 |                 So I do encourage you to have your shared  
23 | experiences and lessons learned because there may be some of that  
24 | that we wouldn't have to - wouldn't require a change in regulation.  
25 | They may be simply practices that we could improve our own

1 processes, and so I know our staff will give a very sincere consideration  
2 of that.

3 So with all of that, I would just say that you all have  
4 your own relationships with these entities. Is there anything you would  
5 say for what you're going through right now is a really key and principle  
6 lessons learned, not about the NRC process, but about your own or  
7 your state-level processes? Is there anyone who just at a high level  
8 would reflect on, "We wish we had this in place or we had done that  
9 better?"

10 And I think the other curious thing is we've all talked  
11 about having little notice of premature cessation of operation. You  
12 know, it occurs to me other than Oyster Creek, that may be more the  
13 norm than the exception. And so, you know, I'm having - just open to  
14 thoughts on is that - should we adjust our thinking on that? Maybe  
15 they'll all be kind of short notice. Anyone who would like to respond?

16 MR. BALDAUF: Just for New Jersey, you know, you  
17 spoke a little bit about preemption before, and we all fully understand  
18 that, but I think, at least on the operating side, we've done a very good  
19 job working with the utility, and that relationship is key to be able to  
20 handle all of the offsite issues that aren't actually preemption issues, but  
21 they're issues that the utility might not be required to do, but you need  
22 that conversation. You need that two-way street to be able to satisfy  
23 the community, but also stay back on the preemption side.

24 The agreements that agencies have in place to assist  
25 with, to participate in inspections, to be at the table all of the time, that's

1 | huge, the SLO program that allows us to have, the states to have  
2 | information before the public does, to be able to sound off and say,  
3 | "Yes, we're fully aware. We're on board with this." So those types of  
4 | things are all very important.

5 |                   COMMISSIONER SVINICKI: And those are perfect  
6 | examples when I referred to it as your own relationships with these, the  
7 | employees with the sites, being both broad and deep. Those are all  
8 | good examples of that.

9 |                   MR. BALDAUF: Absolutely.

10 |                  MR. WOLF: If I could, and again, no one understands  
11 | than an airline person federal preemption, so I really, I get it, and  
12 | actually I -

13 |                  COMMISSIONER SVINICKI: So I should have  
14 | counted on you to take that on.

15 |                  MR. WOLF: And I appreciate it.

16 |                  COMMISSIONER SVINICKI: Thank you for opening  
17 | the door.

18 |                  MR. WOLF: I mean, really it's needed in a lot of  
19 | issues like this. What I would say the NRC might consider doing a  
20 | better job of, or a more proactive job of, is playing the facilitator because  
21 | even though you may not have regulatory or legal authority in certain  
22 | areas, the fact is you are the regulating agency. So when you bring  
23 | the stakeholders to the table, you do it in a different way.

24 |                  Whether you have the ability to actually influence the  
25 | outcome on a certain issue, the mere fact that you're bringing us

1 together is a lever point for the utilities. And they are not all willing to  
2 play ball like maybe the New Jersey experience. I can tell you that.  
3 It's different in Massachusetts.

4 So I would ask that whether it's formal in the rules, or  
5 whether you just do it informally, we're dealing with EPA, we're dealing  
6 with the Massachusetts Environmental Protection Agency, as well as  
7 other state agencies, and very often NRC isn't at the table, so if you  
8 were willing to do that, I think it would actually make a difference.

9 COMMISSIONER SVINICKI: Thank you. Would  
10 anyone else like to comment?

11 MS. ENGELHART: I will just comment that I believe  
12 Kewaunee was the first of this new batch of shutdowns, and so  
13 everything was done at first on an ad hoc basis, but I'd really like to  
14 complement our Region III NRC liaisons. They did their best to  
15 answer our questions, and the NRC Headquarters.

16 But I did feel that there was a need for maybe a  
17 decommissioning team that included the state and locals, NRC, FEMA,  
18 and plant representation to even, you know, explain to us what the  
19 exemption process was. How did it work?

20 At one point, FEMA made a phone call to me and said,  
21 "The plant got their exemption." And I said, "They did? That's  
22 strange. I guess I would have thought they would have called," and it  
23 was just one exemption out of many so we didn't understand the  
24 process at all.

25 So I guess I - what Senator Wolf was saying is what I'm

1 getting at too, is that there needs to be more of a formalized process, a  
2 team that sits down together and maintains, you know, situational  
3 awareness and monitors the activities that are going on during the  
4 decommissioning process.

5 COMMISSIONER SVINICKI: Thank you. Anyone  
6 else?

7 DR. WEISENMILLER: Yes, I was going to say I think  
8 the importance of communication both ways is one of the key  
9 messages that should come out, and also that it's really important that  
10 the plant operator has that sense of community.

11 You know, in looking at San Onofre, Edison has done a  
12 number of things voluntarily which has certainly helped, but - you know,  
13 in terms of the engagement panel, in terms of continuing to do the  
14 monitoring and emergency planning.

15 Again, you've got each, in my state, each area has  
16 been different, but I think the - you know, all of us need to adapt to that  
17 - the specific circumstances, and try to communicate well in terms of  
18 understanding peoples' concerns, and move forward.

19 COMMISSIONER SVINICKI: Okay, thank you.  
20 Thank you, Mr. Chairman.

21 CHAIRMAN BURNS: Thank you. Commissioner  
22 Ostendorff?

23 COMMISSIONER OSTENDORFF: Thank you,  
24 Chairman, and thank you all for being here. I also benefit  
25 tremendously, as do my colleagues, from hearing your perspectives.

1 And I know that some of these things are things we have some control  
2 over. Some of these are outside of our control, but it's good to air  
3 those.

4 It's important for us as Commissioners to have  
5 situational awareness of what things are on your plate, and of your  
6 concerns, even if they may sometimes fall outside of our regulatory  
7 responsibilities.

8 Like Commissioner Svinicki, I've been to many of your  
9 sites. I've been to Humboldt Bay, been to SONGS twice since shut  
10 down. I've been to Kewaunee there in September of 2013 and had a  
11 long discussion with Kewaunee, and then also Point Beach about the  
12 relationship. I've been to Crystal River, Pilgrim, Turkey Point, St.  
13 Lucie, and Salem, Hope Creek.

14 And so I think the Commission benefits by getting out  
15 and seeing these sites, talking to the community individuals, but also  
16 hearing more formally in this setting your concerns. I guess I'm going  
17 to start out with Senator Wolf's comment on the coordination, and I'm  
18 going to kind of look at California here, just I think we want to help be  
19 part of the solution on coordination and facilitation.

20 But I look at just in the San Onofre community, the  
21 number of different local governmental entities involved in that is  
22 overwhelming to a certain extent. And so just - I can't remember the  
23 number. I met with several of them in my two visits out there, and we  
24 need to be careful that we're not trying to pick winners or losers as far  
25 as who gets a seat at the table and who does not because that

1 sometimes surfaces in these discussions with the NRC placed in the  
2 somewhat awkward position as to who is going to speak at a particular  
3 event. You know what I'm talking about Dr. Weisenmueller.

4 DR. WEISENMILLER: Right.

5 COMMISSIONER OSTENDORFF: Miller, excuse  
6 me.

7 DR. WEISENMILLER: Exactly, I was going to say the  
8 reality is for California, all of our citizens really want to be engaged, and  
9 it's important to have an open process and encourage them.

10 COMMISSIONER OSTENDORFF: Absolutely, and it  
11 is for us to pragmatically try to actualize that. Sometimes there's hurt  
12 feelings and groups left out because it's difficult to allow 50 different  
13 groups to be at the table for a particular meeting, and in particular in  
14 southern California, sometimes there's a large number of different  
15 entities, so I think your comment was helpful.

16 I know that our staff is very committed to the open  
17 meeting, open forum process to allow everybody's voices to be heard.  
18 And while from your perspectives we may sometimes fall short of the  
19 mark, it's not for lack of effort I think is my observation as a  
20 Commissioner here.

21 MR. WOLF: Yes, and I hope I didn't send the wrong  
22 message. The NRC staff in our region has been really responsive and  
23 has been at the table. I think what I'm saying is, and to echo the point,  
24 if there was a formal sort of mandate or structure that allowed that to  
25 happen in a more predictable and open way, I think our constituents

1 | would appreciate that.

2 |                   Because the staff is doing a great job there, but it's just  
3 | they're not - I don't think they're really clear the degree to which they  
4 | should be engaging at all these levels.

5 |                   COMMISSIONER OSTENDORFF:       Okay, I  
6 | appreciate the spirit of your comment, and I agree that we need to be  
7 | very sensitive to ensuring that the voices are heard. I'll just comment  
8 | even in preparation for this meeting and the attendees for this meeting,  
9 | there are some challenges at different state levels as to, well, who's  
10 | going to represent an individual state?

11 |                   MR. WOLF: Right.

12 |                   COMMISSIONER OSTENDORFF: That's just the  
13 | reality of the world we're in. So thank you for that comment. I think  
14 | that was very helpful. Mr. Baldauf, let me talk to you about - I have a  
15 | question I wanted to ask you about your slide four, please.

16 |                   MR. BALDAUF: Sure.

17 |                   COMMISSIONER OSTENDORFF: And you made  
18 | the comment, if I understood it correctly, that previously approved  
19 | exemptions are likely to deviate from the final rule. And do you have  
20 | anything in particular, any particular safety aspect in mind in that  
21 | comment?

22 |                   MR. BALDAUF: Oh, I think the focus on that is  
23 | probably emergency planning meaning that, you know, our belief is that  
24 | emergency planning shouldn't cease outside offsite, shouldn't cease at  
25 | the, say, 15 months, whatever that, roughly that time is from cessation

1 of operations.

2                   So let's say for instance that the new rule, the final rule  
3 has some other requirement from the time period of that 15 months until  
4 all of the fuel is in dry casks. That would be a deviation. That would  
5 be the type of change. So you'd be in a situation where you have  
6 exemptions out there that were treated differently than going forward  
7 with the final rule, so those are the types of things.

8                   It could be really any change. I mean, the whole point  
9 of the slide was to try to say that it's a - the rule process to engage all of  
10 the stakeholders. If the only - at the end game, the only thing that's  
11 done is codify exemptions that have been in the past, I'm not sure what  
12 you gained other than -

13                   COMMISSIONER OSTENDORFF: Well -

14                   MR. BALDAUF: You know.

15                   COMMISSIONER OSTENDORFF: So do you have a  
16 safety issue with the exemptions that NRC has granted for the  
17 decommissioned sites so far? Maybe that's the better way of me  
18 asking the question.

19                   MR. BALDAUF: Yes, our -

20                   COMMISSIONER OSTENDORFF: What's your  
21 safety concern?

22                   MR. BALDAUF: Our belief is that regardless of the  
23 magnitude, if you can have an offsite release, whether it's below or  
24 above the EPA PAG level, we believe that's a safety concern. Now,  
25 let's take the assumption it's below the PAG level.

1                   We still think there should be some offsite capabilities  
2 in place because - and a dedicated offsite plan is much more effective  
3 than an all-hazards plan to protect those people, and we think that  
4 something needs to be in place at least until everything is in dry cask  
5 storage.

6                   COMMISSIONER OSTENDORFF: Is there a specific  
7 exemption that we have granted for the Kewaunee, SONGS, Crystal  
8 River, Vermont Yankee that you're alluding to, or is it more of a general  
9 concern you have?

10                  MR. BALDAUF: It's our general understanding the  
11 exemptions issued that they are no longer required to do offsite  
12 emergency planning, so it's not one specific piece of it. The whole  
13 program ceases to exist at a certain point and we believe it's premature.

14                  COMMISSIONER OSTENDORFF: Okay.

15                  MR. BALDAUF: We believe it should go offsite.  
16 There should be something in place. We're not saying it has to remain  
17 unchanged. We realize that, but something should be changed.

18                  COMMISSIONER OSTENDORFF: Okay, I  
19 appreciate that specificity. Dr. Weisenmiller, you made a comment if I  
20 heard you correctly that the NRC should look at exemptions, and I  
21 believe you used the phrase, "in a more systematic fashion."

22                  DR. WEISENMILLER: Yes.

23                  COMMISSIONER OSTENDORFF: Could you  
24 elaborate on that perhaps?

25                  DR. WEISENMILLER: Well, again, I think the basic

1 message is all of these sites are different, and looking at what you're  
2 going through - and again, I was thinking particularly similar to some  
3 sort of tiered approach, that, you know, once everything is off the site  
4 obviously it's pretty straightforward. When things are moved into the  
5 casks, again, I think our level of concern goes down significantly.

6 But in that period of time when stuff is still in the spent  
7 fuel pools going into the casks is where we still have some concerns,  
8 and we appreciate Edison's efforts to expedite the movement there.  
9 But I think in terms of, again, looking at cut and dry just when you stop  
10 operating, obviously it's a lot safer, but it will not be as safe as it will  
11 when it's all in the casks.

12 COMMISSIONER OSTENDORFF: Okay, thank you.  
13 Thank you all. Thank you, Chairman.

14 CHAIRMAN BURNS: Okay, thank you.  
15 Commissioner Baran?

16 COMMISSIONER BARAN: Well, thank you again to  
17 all of you for being here. It's really not that often we have a  
18 commission meeting where we have stakeholders representing folks  
19 from coast to coast. It's a little bit like our Super Tuesday of  
20 commission meetings, so thanks.

21 I want to start with what's really probably a pretty  
22 obvious question for a panel of state officials, which is what's the right  
23 role for state and local governments in the decommissioning process?

24 As has been mentioned, there are a few days left in the  
25 comment period, but I've been looking through the comments we've

1 received so far, and I saw that many of them suggest that NRC require  
2 the establishment of a community advisory panel with state and local  
3 representation for each plant entering decommissioning.

4 Ms. Engelhart and Senator Wolf made that suggestion  
5 today. Is that something you think we should consider requiring, and  
6 should a licensee be required to provide its post-shutdown  
7 decommissioning activities report to the community advisory panel for  
8 feedback prior to its submission to - at the NRC?

9 MR. DUDLEY: I think it's crucial. I appreciate the,  
10 you know, raising the issue. It's so industry driven in Florida at least.  
11 I don't know what the experiences of all of the other states would be.  
12 But you know, community involvement, input, and so on is critical, and I  
13 think that should be greatly considered.

14 MR. WOLF: Please, and absolutely.

15 MS. ENGELHART: Yes, everything that we do with  
16 the utility now is in tandem, and so it's just a matter of why stop at the  
17 announcement of their shutdown? There's still a lot of offsite  
18 concerns, a lot of community concerns. So I feel that they should  
19 continue that working relationship to get through that process as well.

20 DR. WEISENMILLER: Yes, now I think what I've  
21 found is frankly my citizens look to us for some degree of independent  
22 assessment and information in this area, and so one way or another,  
23 we're part of the process. And so having a more formal role makes  
24 sense, and at the same time, you know, talking about how each site has  
25 its own wrinkles.

1                    Obviously one of the complications for San Onofre is  
2                    it's in the middle of a military base. And certainly under the lease  
3                    agreement with the Marines there, it's supposed to be brought back to  
4                    the condition it was beforehand, and so that's sort of another really  
5                    significant player that somehow needs to be folded into this process is,  
6                    you know, what exactly does that lease mean in terms of what the  
7                    Navy/Marines are going to require?

8                    MR. BALDAUF: For New Jersey, I think that, you  
9                    know, regardless of how the rule comes out, we would have a  
10                    community advisory panel, you know, just because of our active  
11                    engagement and how our agencies operate.

12                    But our concern, and you'll see in our comments, is we  
13                    asked for it to just be strongly encouraged because our concern is one  
14                    size doesn't fit all. And so if you put a mandatory piece in there, it  
15                    might work perfect for Florida, but not for New Jersey, and not for New  
16                    York, or whatever it may be.

17                    Because as I think was spoken by some of the NRC  
18                    staff earlier, each site is unique. You know, the stakeholders are  
19                    unique everywhere from very strong, strongly organized, to not that  
20                    much involvement, so you want to be able to craft it so it can work for  
21                    every jurisdiction.

22                    COMMISSIONER BARAN: What's your vision about  
23                    - so there's the question of whether NRC should mandate the existence  
24                    at all of such a community advisory panel. But putting that aside,  
25                    what's your vision for how the composition of that panel should be

1 determined? Who should determine the composition of that panel,  
2 and - because I take your point. It's going to be different in every case.

3 MR. BALDAUF: Right, I mean, in our state - in most  
4 states it's unique because you have different agencies. So in our  
5 state, it would be the Department of Environmental Protection, State  
6 Police, and Office of Emergency Management, and then we'd pull  
7 together all of the affected groups so it would be the county, the local  
8 responders, things like that. And also we obviously have a long track  
9 record with all of the concerned stakeholder groups, and they'd have a  
10 seat at the table also.

11 COMMISSIONER BARAN: Okay.

12 MR. WOLF: If I could, I mean, I would also, I would  
13 broaden that out a little bit because there are going to be land use  
14 issues, there are job issues, and there are economic issues. So I think  
15 it's a great conversation.

16 I'd like to think about it and maybe get back to you  
17 because I think there's a process you could work through the state to  
18 get recommendations for appointees or positions that are appointed  
19 that would really facilitate a great outcome.

20 We're all acknowledging that they all are individual and  
21 unique, but all individual and unique have a lot of themes that are in  
22 common that would suggest certain people would really fulfill that  
23 mission on the panel in a really meaningful way.

24 COMMISSIONER BARAN: We'll get into this a little  
25 bit more in the next panel, but the nuclear industry has recommended

1 that NRC proceed with a rulemaking focus just on the exemption piece.  
2 Under this approach, as I understand the proposal, NRC would not take  
3 a fresh look at all of the other issues including the appropriate role of  
4 state and local governments.

5 I wanted to get your thoughts collectively, and I guess  
6 individually and then collectively. What do you think about that  
7 approach, the narrowly focused rulemaking just on exemptions?

8 MR. WOLF: I'll jump in. I think that's absurd. I  
9 mean, we have lessons learned from operating these plants and from  
10 decommissioning them, so I totally agree with the Commissioner -- I'm  
11 not going to try your last name because I'd insult you.

12 But I totally agree that there's opportunity to expedite  
13 some of the proposed rules to bifurcate and expedite, but that should  
14 not be instead of taking a much more broad and deliberate approach to  
15 the bigger issues. If we do what you're suggesting and just focus on  
16 exemption, we're eliminating a lot of the lessons learned that could be  
17 applied in some really meaningful ways.

18 COMMISSIONER BARAN: Other thoughts about that  
19 narrow versus broad?

20 DR. WEISENMILLER: No, I think historically we've  
21 failed in terms of not thinking a lot about the back end of the fuel/reactor  
22 cycle, and this is a good opportunity to do that. You know, I mean,  
23 certainly our plants were not sited with the perception that they would  
24 be waste storage facilities, spots, you know.

25 MR. BALDAUF: I think if you don't include the

1 stakeholder participation early on in the process and wait until later, it's  
2 a disservice because I think one of the biggest issues that the local  
3 communities have is that they don't have a role. They don't have a  
4 piece in the exemption process. They don't have a say in what's going  
5 on.

6 And whether it's simply just a community advisory  
7 panel type of situation that allows them to voice their concern, it goes a  
8 long way toward getting them supportive of whatever is moving forward,  
9 and at a minimum, at least they know that their voice has been heard.

10 MR. DUDLEY: To do otherwise would seem  
11 undemocratic.

12 COMMISSIONER BARAN: Thanks for your  
13 comments on that. So I take it we don't have any votes on this panel  
14 for the narrow rulemaking that just looks at exemptions? Okay, it's not  
15 democratic in quite that fashion where we vote by panel, but it's good to  
16 get a sense of where people are on things.

17 NRC is specifically seeking comment on the question  
18 of when it's appropriate for the licensee to deactivate the emergency  
19 response data system or ERDS. Ms. Engelhart, after Kewaunee shut  
20 down, I should say Kewaunee.

21 MS. ENGELHART: Either way is fine.

22 COMMISSIONER BARAN: Okay, I appreciate that.  
23 Dominion voluntarily kept ERDS operational for the data points that  
24 were still relevant to the spent fuel pool. Do you think that was a good  
25 outcome, and is that something that NRC should consider requiring?

1 MS. ENGELHART: I think for us it was - it gave us,  
2 you know, something to rely on, and we still felt like we had that  
3 capability. If something went wrong with the spent fuel pool, we still  
4 would have access to ERDS and could still perform a little bit of an  
5 independent assessment.

6 So we feel that if something went wrong, it would be  
7 useful. It would be beneficial. And as long as it's not cost prohibitive  
8 to the utility, we would like to maintain that capability, yeah.

9 COMMISSIONER BARAN: Do others have thoughts  
10 about ERDS and when the appropriate time to completely shut it down  
11 is?

12 MR. BALDAUF: Sure, I mean, for - our comments  
13 were specific to - I mean, it really is the key piece of information that  
14 offsite organizations use for response purposes. So obviously you're  
15 only looking at a few things, a few items there at that point, but we think  
16 it should exist to some degree until such a time as everything is in dry  
17 cask storage.

18 Because without that, even though we have other  
19 ways, without that, this one piece, you're kind of flying blind at that point.  
20 So even if you don't expect that release to go offsite necessarily, you  
21 still might have to make protective action recommendations and things  
22 like that, and you wouldn't - and that's a critical piece to have.

23 MR. WOLF: Could I respond to that? I'm wearing  
24 my pilot for a minute. At Pilgrim, there is a wet storage facility that is  
25 holding over 3,000 spent fuel rod assemblies that was designed to hold

1 880. It is at the top of the building that was designed to have strong  
2 walls and a weaker roof so that a rapid discharge would go up instead  
3 of out.

4 We should do nothing to diminish the emergency  
5 response until all of the fuel that can be safely moved from wet to dry  
6 storage - I can't emphasize that enough. I think the staff is  
7 understating the exposure of how this fuel is being stored, both the  
8 natural disaster, but also to some kind of other event, so I won't say it  
9 again if I said it emphatically enough that time.

10 DR. WEISENMILLER: Yeah, exactly. I think, just  
11 again, having the data is important so there are - if something happens,  
12 it's a way of either reassuring the public it's not significant or dealing  
13 with it.

14 COMMISSIONER BARAN: Thank you. Thank you  
15 again for your thoughts, and I look forward to reading the written  
16 comments for those of you who are submitting them. Thanks.

17 CHAIRMAN BURNS: Again, I want to thank the panel  
18 for your presentations. You have a few questions. Actually, I'll start  
19 with Mr. Baldauf with perhaps the more narrow question. I thought  
20 your comment with respect to the, sort of the memorandum of  
21 understanding on inspection was interesting.

22 I mean, it's been a while since I've looked at one of  
23 those. I'm presuming they may be more open-ended, but I don't know.  
24 You may have looked in terms of a particular type of termination, but it  
25 does seem to me that there is, you know, value in terms of the state -

1 | excuse me, at the, you know, continued cooperation of the state during  
2 | that phase, but I don't -

3 |                   MR. BALDAUF: Yeah, to be quite honest, we didn't  
4 | look at the language. I'm not saying it does -

5 |                   CHAIRMAN BURNS: Yeah.

6 |                   MR. BALDAUF: - look like it stops at that point. We  
7 | just wanted to reinforce -

8 |                   CHAIRMAN BURNS: Yeah.

9 |                   MR. BALDAUF: - that needs to go on. I mean, the  
10 | other piece that needs to be understood too, the resident inspector  
11 | leaves fairly early or fairly soon after the reactor ceases operation. So  
12 | it's just another comfort level to know that even though the resident  
13 | inspector isn't there, we do have staff that have the ability to be there  
14 | and are still continuing to participate in all activities.

15 |                   CHAIRMAN BURNS: Right, and obviously, you  
16 | know, when the residents go, we do continue to have inspection  
17 | oversight of activities, and then sort of ability to coordinate and all of  
18 | that. So I think that's a good - one of those little things. It's probably  
19 | worth looking at on both of our ends in terms of that, and I take the point  
20 | in your context, and I think Senator Wolf mentioned, and this comes  
21 | from my own experience visiting one of the plants currently under  
22 | decommissioning.

23 |                   Because I think the interesting thing when I visited  
24 | them last year is the Zion plant north of - which was north of Chicago, is  
25 | that as they are going through the process, they're coming to the point

1 | where the radiation basically, or decontamination for radiation, other  
2 | than they've got some of the large components which they're breaking  
3 | up for disposal, their issues are much - hazardous materials and some  
4 | other things, asphalt, and other things which yeah, if we sat here, you  
5 | know, we'd think about, but they need to deal with.

6 |           And obviously some of those things, I think as you  
7 | noted, are things subject to state regulation. It may be state regulation  
8 | delegated from the EPA, or the EPA directly, or there may be state  
9 | environmental issues. For example, at that site, some of the site is  
10 | being released to, I think, public park land alongside, so at one point,  
11 | those interests.

12 |           So I think you made a good point. A number of you  
13 | have made a good point on this, the question of our engagement with  
14 | state and local organizations as we can.

15 |           One of the things that, and I'd appreciate your  
16 | comments from anybody who would care to respond on this, is there's a  
17 | theme in some of your comments to us regarding decommissioning  
18 | regulations, maximizing safety, and minimizing economic impacts,  
19 | among other things. And also, this notion when we talked about the  
20 | state - or excuse me, the community engagement boards, about issues,  
21 | for example, the site usage and all of that.

22 |           And here is a place where, you know, if you draw the  
23 | Venn diagram, where we may have some of that, particularly noted in  
24 | the radiation area, the remediation area, but some of those things in  
25 | terms of economic usage, impacts on community, are frankly outside

1 the NRC wheelhouse. And I've gone to places and talked about this,  
2 and suddenly I'm the economic redeveloper, which I'm not qualified to  
3 do.

4 But could anybody - I'm not - there's a question in there  
5 somewhere, but my question is really how do we look at that role which  
6 is, is the NRC role, which is the safe decommissioning, safety and  
7 security while that process is going on, with these other things that sort  
8 of intersect about future community development, future uses, and all of  
9 that? If anybody would like to respond, I'd appreciate it.

10 MR. DUDLEY: Yes, thank you. You know, again,  
11 you could fill a thimble with what I know about this, but it seems that  
12 regulations to the extent that the NRC can assist in assuring that  
13 financially that there, you know, there's adequate funding to  
14 decommission, and to do it faster, is my main impetus in this, I think.

15 You know, I really don't know and haven't considered  
16 the other side of what the wonderful value of keeping a site open for 60  
17 years in mothballs or whatever before that is returned to usefulness.  
18 So, you know, that's my input.

19 MR. WOLF: If I could, the other federal agency that I  
20 deal with a lot in my life, while there's not necessarily regulatory  
21 oversight in certain areas, there certainly are best practices.

22 And a role that you could play which would really be a  
23 nice, again, facilitative role, is to look at land use relative to nuclear, you  
24 know, decommissioned nuclear sites, and say what is working in other  
25 areas so that other decommissioning plants and their communities

1 | could look at best practices, everything from retraining work force, to  
2 | land use, to other environmental issues, almost a play book if you will  
3 | that's not regulatory.

4 |                   And I understand resources are limited, but if you're  
5 | asking what could you do to help, there are consistent themes with all of  
6 | these plants, and yet very often the communities feel like they're in  
7 | isolation. So you could actually play a really interesting role relative to  
8 | best practices.

9 |                   DR. WEISENMILLER: Yeah, now, I was going to say  
10 | obviously you preempt the field in the area of radioactive issues. Now,  
11 | having said that, there's a whole complicated set of issues involved in  
12 | decommissioning, some of which obviously states have a lot of  
13 | experience with other pieces of it, and certainly the economic  
14 | redevelopment is a piece where, again, that's certainly very appropriate  
15 | to have state and local involvement.

16 |                   But again, I think we have to be looking at it as a  
17 | partnership, again, realizing you have parts which are really in your  
18 | wheelhouse, but other areas where you can facilitate the conversation.  
19 | I think a lot of the process I'm looking forward to is thinking of the blue  
20 | ribbon commission on how do we deal with long term waste issues?

21 |                   This is a good chance to put in place sort of a model  
22 | program here on decommissioning that will allow us that degree of  
23 | comfort to move forward on solutions for long-term waste.

24 |                   CHAIRMAN BURNS: Okay, anybody else?

25 |                   MR. BALDAUF: Yes, just a quick one. I think it's

1 difficult for the NRC in that space because no matter how well you send  
2 the message out, at the end of the day, you may be looked upon as the  
3 agency preventing that land to be developed for 60 years. So even  
4 though your piece is limited, as long as - I mean, people are asking,  
5 "What can we do there next? How can we redevelop this property?"  
6 But if the rule is to allow that long of a time period, you're still going to be  
7 there.

8           But the best advice we have is there isn't - there can be  
9 a lot more communication with the public so they explain exactly who  
10 does what, but you're very correct, and those circles are very  
11 intertwined and complicated, and you'd be surprised, at least we're  
12 surprised daily on what people think the expectations are from each of  
13 the agencies.

14           CHAIRMAN BURNS: Okay, all right, thank you very  
15 much, and I want to thank this panel again for your interesting  
16 comments and testimony this morning. And we're going to take, oh, I'll  
17 be generous and give us until 11:00, and we'll have our second panel.  
18 Thank you again.

19           (Whereupon, the above-entitled matter went off the  
20 record at 10:53 a.m. and came back on the record at 11:01 a.m.)

21           CHAIRMAN BURNS: Well, thanks, everyone, and  
22 we'll get started with our second external panel. And, again, we want to  
23 welcome those of you who are participating in this one: Rod McCullum,  
24 Senior Director, Used Fuel and Decommissioning Programs at the  
25 Nuclear Energy Institute; Pamela Cowan, Director, of Spent Fuel and

1 Decommissioning for Exelon Generation; Gerry van Noordennen, Vice  
2 President, Regulatory Affairs at Zion, Energy Solutions; Wayne Norton,  
3 Chair of the Decommissioning Plant Coalition and President/CEO of  
4 Yankee Atomic and Connecticut Yankee and Chief Nuclear Officer of  
5 Maine Yankee; and Geoffrey Fettus, Senior Project Attorney with the  
6 Nuclear Program at the Natural Resources Defense Council; and Kate  
7 O'Connor, Chairperson of the Vermont Nuclear Decommissioning  
8 Citizens Advisory Panel.

9 I welcome you all, and we'll start down here with Mr.  
10 McCullum.

11 MR. MCCULLUM: Chairman Burns, Commissioners,  
12 I want to begin by congratulating you on assembling a very robust panel  
13 here, rich in stakeholder input and views from states and communities.  
14 I find that very informative and instructive in my role for the Nuclear  
15 Energy Institute of representing industry's interests on a complex-wide  
16 basis in the areas of used fuel and decommissioning.

17 In the area of decommissioning, with respect to this  
18 rulemaking, I will say that we agree with Commissioner Baran that,  
19 when we shut down a nuclear plant, it's a very big deal. So we have  
20 given in our industry significant consideration to this potential  
21 rulemaking. It's our proposal that I'll talk about here today for a  
22 limited-scope rulemaking has already been referred to. I will say that  
23 proposal has been vetted at all levels of industry, and I'll talk about why  
24 that is.

25 After I describe that, you'll hear from three of my

1 colleagues before hearing from some more stakeholders. They will  
2 give you tales of decommissioning past, present, and future, in reverse  
3 order actually. And I think those tales will be further instructive  
4 because they will help illustrate why we have come to the position we  
5 have on focusing on a limited scope rule here.

6           So if we can go to the first or the slide after the title  
7 slide. I won't spend a lot of time on this because I think Bruce Watson  
8 did an excellent job of outlining the history of decommissioning as a  
9 history of success. We do know how to do this. You know, we have  
10 safely decommissioned ten nuclear plants, we've got 18 others in the  
11 process, all of them working, all of them using available  
12 Decommissioning Trust Funds responsibly to get to that end point.

13           What that tells us is a couple of things about NRC's  
14 regulatory framework. Number one, that's it's very effective. You  
15 have the right regulations in place to govern how to decommission a  
16 nuclear plant. Where the regulatory framework needs improvement is  
17 in the transition from an operating plant status to a decommissioned  
18 plant status.

19           You recognized that before 2000, and then that  
20 rulemaking got overtaken by events. And it's interesting that the  
21 events that overtook it, perhaps ironic that the events that overtook it  
22 have also changed the regulatory world. While we recognized then  
23 and in the RIC, Regulatory Information Conference, last week and the  
24 decommissioning panel that I had a chance to be a part of and  
25 Commissioner Baran had a chance to attend, the French referred to

1 | this as delicensing, that part of the process. And that part of the  
2 | process is not well described by regulations. Again, that was  
3 | recognized in 2000, and, unfortunately, after the turn of the century, it  
4 | got even more complicated because we had the events of September  
5 | 11th, which caused changes to the regulatory framework after 2001; we  
6 | had the events at Fukushima that caused changes to the regulatory  
7 | framework; we had the termination of the Yucca Mountain Project,  
8 | which put a brighter spotlight on used fuel, and that has been talked  
9 | about here in this context; and, of course, we had utility deregulation  
10 | which, as some have alluded to, puts a lot more complex regulatory  
11 | schemes, even beyond NRC's, in place when looking at  
12 | Decommissioning Trust Funds.

13 |                   So the regulatory structure is even more complicated  
14 | today than it was back in 2000 when NRC first began to consider this  
15 | question. So, therefore, it is even more important that we get this  
16 | delicensing part of the process right, that we get the efficiencies built in.  
17 | And I'll talk in a little bit about what those inefficiencies are because, to  
18 | us, in this context, efficiency is safety. Every stakeholder you've heard  
19 | from and every member of industry you're about to hear from are united  
20 | on one key thing is that we all want to see judicious use of the trust  
21 | funds. We all want to be good stewards and see that there is good  
22 | stewardship of the trust funds, so we don't want to be spending money  
23 | on paperwork that's not necessary when we could be spending that  
24 | money safely decommissioning the plants. We believe that those  
25 | efficiencies are the only reason that a rulemaking should go forward.

1                   And if we go to the next slide, this is how we outline the  
2 delicensing process. I think one of the previous speakers referred to it  
3 as the tailored approach at how you transition through the steps. It's  
4 already been mentioned in one of the NRC presentations, you know,  
5 the Agency has already processed about 70 different licensing actions.  
6 These are totaled up in four different points in a plant's life where you  
7 transition from one set of requirements from one risk regime to another.  
8 The fuel is out of the reactor, the reactor will never operate again, you  
9 make your certifications for permanent defueling, you're permanently  
10 defueled with a qualifying spent fuel pool analysis. This is that you  
11 demonstrate that there is no design basis accident with an off-site  
12 consequence and that you can mitigate any beyond design basis  
13 accidents so that there's no off-site consequence. All fuel in dry  
14 storage and then all fuel removed from site.

15                   As we go through these transition points, what our  
16 experience with the five most recent plants has been and in the, you  
17 know, post-turn-of-the-century world that we exist in is that significant  
18 resources get expended. Yes, NRC is getting more efficient in  
19 processing the paperwork. That is something the Agency is to be  
20 commended for. It also tells us, well, why can't we take what they  
21 learned in becoming more efficient and simply make it operable by a  
22 matter of rule? That's what we're asking for there, and you can see,  
23 you know, over a million and a half dollars, about two-thirds of that is on  
24 the industry side, one-third on the staff side, to get the exemptions.  
25 And while you're waiting for them, the collective bunch of them, it's over

1 a million dollars a month.

2           We can go to the next slide. This speaks to  
3 Commissioner Svinicki's concern about not getting where we were in  
4 2000 where we miss an opportunity. You can see the events where  
5 plants begin to shut down again and the Commission began to become  
6 interested in a decommissioning rulemaking again, and we've spent the  
7 last year in this ANPR stage where, again, you know, we have received  
8 a lot of good consideration. We spent a lot of time on those 81 ANPR  
9 questions.

10           But the question I think that Commissioner Svinicki is  
11 asking was, well, are we going to go ahead and shut these next plants  
12 down and maybe those that might follow, I would like to see there won't  
13 be, but if there were, are going to shut them down using the same  
14 exemption process and use millions more dollars, maybe a few fewer  
15 millions, but millions more dollars of the decommissioning trust fund, or  
16 what can we do in the interstitial time that exists between where we are  
17 now and when we again go into decommissioning in some more  
18 plants? That was a key question industry wrestled with. We even  
19 wrestled with the possibility, well, why do rulemaking at all if you can't  
20 do something in that time?

21           So that's one of the foundational considerations in our  
22 proposal. And if we can go to the next slide, this is, in fact, our  
23 recommendation: that you pursue a limited scope rulemaking to  
24 address the inefficiencies, to make operable by rule what you've  
25 already done in numerous exemption requests. And that's very

1 | important here is that we believe you already have established a  
2 | regulatory basis for that in those exemptions and license amendments.

3 |           You know, the next step of the process, the regulatory  
4 | analysis, the regulatory basis, if you simply build the rulemaking or a  
5 | limited scope rulemaking, and I know the possibility of bifurcating has  
6 | been mentioned, you know, if you simply build it on the regulatory basis  
7 | you already have, is there, in fact, an opportunity there to get something  
8 | done in a time frame that can have efficiencies in place in time for more  
9 | plants to use them? We think there is.

10 |           So we won't just submit comments on the ANPR.  
11 | We're going to submit a detailed rulemaking proposal with rule  
12 | language in it that all has what we believe is a firmly-established  
13 | regulatory basis and actions that NRC has already approved. We're  
14 | going to encourage you to move forward quickly with that. What you  
15 | do with the rest of the fresh look that you may or may not be taking,  
16 | that's another decision you'll have to make. We're not weighing in on  
17 | that. What we're looking for is what we can do to, again, preserve  
18 | those elements of the trust fund so that we can get to the common goal  
19 | of decommissioning these plants safely.

20 |           Going to the next slide, these are things that have  
21 | already been discussed and we commend the staff for recognizing  
22 | these in the Advanced Notice of Proposed Rulemaking. There is no  
23 | safety reason to do this, except for the fact that efficiency is safety in  
24 | this case when you're looking at pre-defined and limited resources.

25 |           You know, Chairman Burns talked about NRC's

1 wheelhouse. What we're saying here is that NRC should stay inside  
2 its wheelhouse. You are a regulator of nuclear safety, protecting  
3 public health and safety and the environment.

4           So I don't want to dismiss the other concerns that have  
5 been raised here. They're all valid concerns. Our nuclear plants are  
6 parts of the community when they're operating. They don't stop being  
7 parts of the community when they shut down. In fact, in some  
8 respects, the relationship gets closer. I've spent some time recently  
9 out at the Vermont Yankee site, got to meet Kate O'Connor out there.  
10 And, you know, it's a very emotional event when a plant shuts down.  
11 It's emotional on both sides. I know I was there the day that the Zion  
12 Nuclear Station announced its shutdown.

13           And so the processes that are in place already, they  
14 work. They work when we're operating, they work when we're shut  
15 down. There's no safety reason for NRC to get into this.

16           And I'll say one more thing. A lot has been expressed  
17 about the desire to get the used fuel off the site. The communities do  
18 not want to be host sites for used fuel any more than we want to be in  
19 the business of managing used fuel at these sites, although we will do  
20 so safely. I would encourage the state representatives and community  
21 representatives who have come to you today to take the same  
22 concerns to a different agency, one that has its headquarters down in  
23 the Forrestal Building on Independence Avenue, the Department of  
24 Energy.

25           So I'll wrap up now and go to my concluding slide. We

1 | certainly think your primary objective is worthy. I would be remiss  
2 | without invoking Project AIM. I think that recognizes the imperative of  
3 | efficiency here, and we think that you should stay within the scope of  
4 | your primary objective and address the inefficiencies. Thank you.

5 | CHAIRMAN BURNS: Ms. Cowan?

6 | MS. COWAN: Okay. Good morning. I'm Pam  
7 | Cowan, and I know it says Director of Spent Fuel and  
8 | Decommissioning, but, recently, my title has changed to Senior Director  
9 | of Decommissioning, as we start to focus on Oyster Creek  
10 | decommissioning.

11 | I'm from Exelon Generation, and at Exelon we operate  
12 | the largest fleet of nuclear plants in America with 23 units being  
13 | operated in six states. In 2010, we did announce that Oyster Creek  
14 | Nuclear Generating Station would be shut down permanently in 2019,  
15 | unfortunately. And current efforts are underway to prepare for that  
16 | upcoming decommissioning transition. And it is with respect to Oyster  
17 | and all other plants that will go through a similar transition sooner or  
18 | later that I am focusing my comments.

19 | So I want to first thank you for the opportunity to  
20 | provide this perspective and say that I do agree, I was, you know, this  
21 | morning in the session, I do agree that the current regulatory framework  
22 | ensures safety commissioning, so my comments are not about safety.  
23 | It's more about efficiency.

24 | At the RIC, it was mentioned that 35 licensing actions  
25 | just this past year were processed related to the four sites in

1 decommissioning transition. And if you look at our upcoming plans for  
2 Oyster Creek, and we did submit our plan submittals but I also have  
3 been looking at those in detail lately, similar exemptions and submittals  
4 will be necessary to what we saw with those plants under the current  
5 regulations. And the reason we do these exemptions is because it's  
6 more efficient for us at this site. It helps us adjust the regulations to  
7 meet the risk associated with decommissioning and not an operating  
8 plant risk. So it's important to us to not overburden the site with cost or  
9 resources unnecessary to afford that same level of protection.

10 We then reviewed and we've been working with NEI,  
11 as with other utilities, to come up with this framework that is within, you  
12 know, and justified by those very recently-granted exemptions and their  
13 safety basis. And we spent the time because we felt it was that  
14 important to spend the time, and we spent a lot of time, to write a  
15 regulation that would be in line the justified safety basis, in line with that,  
16 so that, going forward, not only could it potentially benefit Oyster Creek,  
17 and I say potentially because timing does matter, but it will also benefit  
18 every other site.

19 So I said, yes, timing matters because, depending on  
20 the progress and timing of regulation changes, certainly exemptions  
21 and actions associated with moving to an ISFSI-only state or perhaps  
22 earlier could be realized, and 2018 would work best for that for us.

23 I'll use a phrase here, if an ounce of prevention is worth  
24 a pound of cure, then the effort put into the regulations to appropriately  
25 address the decommissioned state and limit licensing actions, well, so

1 benefits far greater than that effort put in up-front to make that change.  
2 Moving forward in a focused manner will ultimately achieve magnified  
3 efficiencies for both utilities and Agency resources and, additionally, in  
4 communication with our stakeholders.

5           Given that it is recognized in the ANPR, and I'll state  
6 again and we agree, that there is no safety reason, the rules should  
7 focus on those areas that will ultimately gain those efficiencies. An  
8 ancillary but no less important benefit is the facilitation of  
9 communication with our employees and stakeholders in describing with  
10 additional certainty the timing of adjustment of regulations as the plant  
11 transitions into decommissioning. There's nothing more awkward than  
12 having to explain that we will then put in for this exemption, then we'll  
13 put in for this exemption, and we think it will be this many months but we  
14 know it's gotten more efficient, so we think, at this point in time, that's  
15 when things will change. It's a very difficult message, and it's not one  
16 that we like to deliver. We would like more certainty in that area, and  
17 we think that, through this rulemaking being focused and occurring, you  
18 know, in the next couple of years, that would benefit us greatly.

19           We have always strived to maintain a good working  
20 relationship with the states and communities within which we operate,  
21 and we will continue to do so. And I've worked with, actually, Paul  
22 Baldauf. I was pleased to see he was on the panel. I've worked with  
23 him through many tougher issues than decommissioning, with license  
24 renewal, with tritium. But we continue to maintain that open dialogue.  
25 We don't always agree on everything, but it's important for us to have

1 that dialogue. I don't think the NRC needs to tell us to have it. I think  
2 we know the value of it, and I think that, again, it helps our dialogue in  
3 being able to communicate a firm message, not one that relies on 26  
4 approvals.

5 Well, the ANPR does go broader than that, which was  
6 initially envisioned in 2000 when December rulemaking was being  
7 reviewed. We respectfully put forward our recommendation that a  
8 focused rulemaking, as NEI described, be put into effect and be  
9 focused on first. And I agree. We do not want to be here ten years  
10 from now wondering what happened because all the good dialogue in  
11 the world, if it doesn't change anything, in the end it doesn't necessarily  
12 help anything. It helps us right now in the moment. I think dialogue is  
13 important. But at the end of the day, we have to see results.

14 So I'll close my comments with three points. First,  
15 reviews of the submitted decommissioning licensing actions should  
16 continue to be processed as efficiently as possible. I know it's  
17 challenging for the staff, and it's a great staff, you know, that I believe  
18 you have here. We've worked with them through meetings. We've  
19 had open communication with them, and it's a good working  
20 relationship, but, at the same time, it is challenging because, as you've  
21 seen and you've referred to in the news, it is not predictable when  
22 plants will ultimately shut down. And, therefore, they have a challenge  
23 of we may not be able to tell them in advance because we may not  
24 know a year in advance or two years in advance. So it's always a  
25 challenge. But the submitted decommissioning licensing actions have

1 | to continue to be processed as efficiently as possible until a rule should  
2 | take effect.

3 |           Second, the timing of the rule can and will make a  
4 | difference in realizing actual efficiencies to those upcoming  
5 | decommissionings. And, third, the goal of the ANPR and AIM will be  
6 | met best when a focused scope rulemaking to allow for significant  
7 | process efficiencies moving forward, and it must not be burdened with  
8 | slowing it down to address other areas that do not enhance safety.

9 |           Thank you very much. I appreciate the opportunity.

10 |           CHAIRMAN BURNS: Okay. Thank you. I'm going  
11 | to ask, we've gone a little bit over on the time. If you need a little bit  
12 | more, fine. But let's try to stick to the timing. Thanks. Mr. van  
13 | Noordennen?

14 |           MR. VAN NOORDENNEN: Good morning, Chairman  
15 | Burns and Commissioners. My name is Gerry van Noordennen. I'm  
16 | the Vice President of Regulatory Affairs for the Decommissioning and  
17 | Disposal Group at Energy Solutions and also have that title at Zion.

18 |           Energy Solutions is the only non-utility NRC licensee  
19 | performing reactor decommissioning at this time. And we also agree  
20 | that the process needs to become more efficient, and the historical  
21 | exemptions that have been granted in the past should be codified in  
22 | rulemaking.

23 |           Next slide, please. The first two presenters have  
24 | already talked about the first two bullets, and I want to focus a bit on the  
25 | third bullet. Energy Solutions is supportive of using the

1 Decommissioning Trust Funds for legitimate decommissioning  
2 activities that would also include stranded large components at  
3 operating power plants, and this would, again, use the existing  
4 definition of decommissioning and using the established precedent of  
5 previous historical exemptions.

6           And going into a little more detail, the process that  
7 we're recommending is that an established sub-account be allowed, as  
8 allowed by the rate regulatory authorities, and then 50.82 would be  
9 revised to require site-specific decommissioning cost estimate to  
10 ensure that any expenditure on the stranded large components would  
11 not reduce the value of the trust fund below the amounts required for  
12 SAFSTOR or radiological decommissioning. So we'd ask that you'd  
13 consider that also.

14           Next slide, please. You have heard a lot about the  
15 exemptions that are needed in the transition. There are also other  
16 exemptions that are needed throughout the decommissioning process,  
17 and I just have an example here of three of them. The record-keeping  
18 requirements, that's an exemption that all plants have applied for, and  
19 that's something you need to stop accumulating records for abandoned  
20 components that are going to end up in a disposal facility. That's  
21 requested early on in the process.

22           Toward the middle of the decommissioning process,  
23 Part 37 needs to be revised. There's some burdensome requirements  
24 in Part 37 right now for security requirements for large components, like  
25 steam generators where you have to put a temporary security fence

1 around a 50-ton chunk of metal that would take a crew with very  
2 specialized equipment a long time to remove from site.

3 Then toward the end of decommissioning, there's a  
4 requirement to have certain-sized NRC office on site. And when all  
5 you have left is a couple of trailers with doing the final site survey is that,  
6 again, is an exemption that people have asked for. Just little things  
7 like this need to be included in the decommissioning rulemaking.

8 And, finally, the last slide, just a little pitch for Zion.  
9 Zion really is the industry benchmark. It's the largest commercial  
10 decommissioning project in NRC history. And, again, we've been  
11 performing that since 2010. We're on budget and ahead of schedule.  
12 And I would invite any commissioners who have not toured the site yet  
13 to come to the site. We're getting to the advanced stage of  
14 decommissioning. Buildings are starting to come down, so please  
15 come and visit us if you'd like to see what decommissioning is all about.

16 And with that, I'll...

17 CHAIRMAN BURNS: Thanks very much. Mr.  
18 Norton?

19 MR. NORTON: Thank you, Commissioner, Chairman  
20 and Commissioners. I appreciate the opportunity. As Chairman  
21 Burns indicated when he did the introduction of the panel, I represent  
22 the three Yankee companies, as well as the Decommissioning Plant  
23 Coalition. The three Yankee companies and the Decommissioning  
24 Plant Coalition will be submitting formal comments to the ANPR.

25 I prepared and submitted a statement for today. I

1 didn't present slides because, as I suspected, the speakers before me  
2 on the panel were going to cover most of my bullets. So the good  
3 news is I should be able to get us back on schedule, Chairman.

4 But I would like to thank the staff and the Commission  
5 for presenting this opportunity through the ANPR for efficiencies and  
6 looking more broadly at decommissioning, the opportunity that we did  
7 not complete back in early 2000 when I was actually decommissioning  
8 at Maine Yankee and dealing with post-9/11 security challenges at the  
9 time of transition.

10 But, actually, to pick up on a point that Rod made  
11 earlier about the representatives here of the decommissioning past,  
12 present, and future, I actually find myself in a unique situation, as this  
13 was the only site where I still represent the past, the present, and the  
14 future. I have an active license termination plan. I can't  
15 decommission my ISFSI until the fuel leaves.

16 However, I am in the present configuration of having a  
17 consolidated interim storage facility in my state for lack of performance  
18 on the part of the government, and I have successfully, with many  
19 others, including Mr. van Noordennen here, effectively  
20 decommissioned the nuclear plant and reduced the license to the dry  
21 fuel storage facility.

22 One point I'd like to make from that is, as we talk about  
23 decommissioning today and what may happen in the future, is I'd also  
24 encourage the Commission and staff to come to an ISFSI-only site  
25 where the work has been largely performed and you can get a true

1 sense of the back-end, which you've heard people speak about earlier.  
2 We're in a spot now where we're essentially securing dry cask storage  
3 for an indefinite period of time.

4           You've heard several speak, and I won't dwell, but to  
5 echo that this work has been performed safely in the past, is in the  
6 present, and would expect it will be in the future. And so we're here  
7 addressing efficiencies in rulemaking. And, again, as Rod indicated,  
8 that's not to diminish the other interests and discussions that have  
9 taken place with community advisory panels and other aspects of  
10 decommissioning that are in the ANPR and all extremely near and dear  
11 to me because, at Maine Yankee, I believe we formed the first  
12 community advisory panel for a shutdown decommissioned nuclear  
13 facility, and we still have it today and at an ISFSI.

14           So the knowledge and experience gained through that  
15 process, the entire process of getting to this interim end-state that we  
16 find ourselves in I think could be informative in both lessons learned  
17 and to inform the rulemaking process. And it's from that prism that  
18 we've commented and will comment here this week when we submit  
19 our final response to the ANPR.

20           And I believe that through the appropriate  
21 risk-informed regulatory process, we will get to a regulatory basis that  
22 makes sense for decommissioning, continues to allow us to perform  
23 safely and efficiently. And in conclusion, I would just caution  
24 everybody that, through the transition that took place a decade ago,  
25 when rulemaking wasn't affected, we found ourselves on many

1 occasions, as a Part 50 licensee, trying to take exemptions from rules  
2 and rule changes that were not intended to affect dry fuel storage  
3 facilities but, on their face, still did. So we found ourselves dealing with  
4 unintended consequences and further exemptions, and I would  
5 encourage us, as we go forward, to look at any rulemaking efforts to be  
6 concise and clear on its application to ISFSIs and decommissionings  
7 after the rulemaking. That's it. Thank you.

8 CHAIRMAN BURNS: Thanks. Mr. Fettus?

9 MR. FETTUS: Good morning, Mr. Chairman and  
10 Commissioners. Thank you for having me. I'm Geoff Fettus. I'm a  
11 Senior Attorney with the Natural Resources Defense Council, and we're  
12 encouraged by the Commissioners' efforts, by the Commission's efforts  
13 to draft regulatory basis to support, in our view, some very necessary  
14 changes to the regulation of reactor decommissioning.

15 The current objective of 2019 for completion of a  
16 rulemaking for reactor decommissioning is timely. The  
17 decommissioning is an integral part of the nuclear energy life cycle, and  
18 communities that host nuclear power plants need to know the rules of  
19 the road from the start of the project to its end.

20 This issue is all the more important with respect to the  
21 fact that the five reactor retirements since 2013 occurred without  
22 substantial advanced notice and opportunity for pre-planning, and that  
23 reflects the growing challenges for the U.S. nuclear industry related to  
24 aging, reliability, safety, and economics. Together, these challenges  
25 could very likely result in a growing number of reactors transitioning to

1 decommissioning in the decades ahead.

2 I agree with Commissioner Svinicki. No one has a  
3 crystal ball, but I think it would be imprudent to not put ourselves in the  
4 position where we found ourselves in the last few years. And I would  
5 suggest moving forward.

6 I will briefly highlight a few of the issues that we'll  
7 discuss in our detailed written submission that will be submitted by  
8 Friday. First, we agree with almost all of the parties here that the  
9 principal radiological risks that are associated with spent fuel storage  
10 are associated with spent fuel storage on site. While the risk of  
11 zirconium fire is not the only radiological risk associated with  
12 decommissioning, such an event would have, by far, the biggest  
13 impacts in terms of off-site contamination.

14 NRDC disputes that radiological release from  
15 decommissioning reactors always significantly lower than that for an  
16 operating reactor because risk is not just a function of whether the  
17 reactor is generating electricity or not but also a function of facility  
18 maintenance, accident mitigation measures, and ongoing security.  
19 During decommissioning, a large radiological source term is still  
20 present. Spent nuclear fuel is dangerous and highly toxic while  
21 fissioning in reactors, and it remains so for millennia. But for the  
22 purposes of this hearing, spent fuel remains dangerous while resting in  
23 over-packed pools not designed for the length of time that they've been  
24 in use, even when a reactor has been shut down and decommissioning  
25 has commenced.

1                   So we recommend no relaxation of health, worker  
2 safety, or environmental exemptions, as has become common, as long  
3 as the spent fuel remains in pools. The Advanced Notice of Proposed  
4 Rulemaking describes the intention of the Commission to improve the  
5 efficiency of regulations but states the proposed rulemaking is not  
6 based on safety concerns. We caution the Commission that, if not  
7 done right, safety concerns can emerge from this rulemaking process.

8                   A crucial question is to what degree will emergency  
9 preparedness be relaxed for decommissioning reactors? We're  
10 supportive of a tiered approach for modifying emergency planning, for  
11 modifying the regulations for emergency planning. We recommend  
12 that tiers be defined as, one, the period immediately after cessation of  
13 operations; two, the period during removal of fuel from the reactor  
14 vessel; three, the period when any spent fuel is still in wet storage; and,  
15 four, the period when all spent fuel is in dry cask storage.

16                   NRDC cautions against any erosion of emergency  
17 planning, physical security requirements, fitness for duty requirements,  
18 or training requirements until the final tier is achieved where physical  
19 protection of dry cask storage creates a substantially more robust  
20 barrier.

21                   Furthermore, we think the NRC should maintain the  
22 Emergency Response Data System during the decommissioning  
23 process up to the final tier when all the fuel is in dry cask storage. But  
24 fully throughout decommissioning, NRC should require the  
25 decommissioned reactor sites provide the public with realtime online

1 radiation data with the decommissioned plant site and in the emergency  
2 planning zone. A network of radiation sensors can be set up and  
3 maintained at very low cost -- we're actually looking into this ourselves  
4 -- and provide transparency for communities hosting decommissioned  
5 reactors with spent fuel and often for decades.

6           Second, an important aspect of decommissioning is  
7 determining how clean the area is. Here, we are recommending that  
8 the release criteria include a dose limit to an average member of the  
9 critical group and that the residual radioactivity has been reduced to  
10 ALARA levels. This limit cannot be measured directly, so a clear  
11 understanding of dose modeling is critical.

12           Third, the decommissioning process cannot be  
13 excluded from the NEPA process. At a minimum, the billion-dollar  
14 operation is a major federal action affecting the environment and  
15 requires supplementation of an existing EIS. This NEPA supplemental  
16 document should be done in light of an NRC requirement that the  
17 licensee submit a formal decommissioning plan that provides a  
18 complete roadmap for both the state and the affected community. The  
19 PSDAR has allowed some contentious disputes to arise, and we think  
20 revision of the process is necessary.

21           A rule for the NEPA supplemental can also address the  
22 site-specific issues that we've heard with both panels because  
23 decommissioning impacts different communities in different ways,  
24 including issues related to environmental justice. Communities  
25 hosting power plants can and have changed dramatically over the

1 decades of power operation, and the source terms are going to vary  
2 from reactor to reactor. These site-specific issues point for a need for  
3 a close look at planned risks, and we think a formal requirement for a  
4 more substantial plan is necessary.

5           Fourth, and I'll close up quickly, it's important there be  
6 explicit and absolute clarity as to the necessary amount of funding  
7 available to support the decommissioning process. As the first panel  
8 said, the GAO noted in a 2014 report the NRC formula may not reliably  
9 estimate the decommissioning cost assurance. This needs to be  
10 rectified. We suggested and we will go into it in our written comments  
11 an online dashboard where stakeholders can see if the reactor in their  
12 community is putting enough aside and if the investment is performing  
13 adequately to meet the needs of clean-up.

14           And, finally, the ANPR notes that the objective is the  
15 appropriateness of maintaining the three existing options. We think it's  
16 time to either dramatically revise the SAFSTOR option or simply do  
17 away with it. We're concerned that SAFSTOR can simply become an  
18 expedient way of deferring important clean-up responsibilities or raising  
19 money that should have been there in the first instance, and it puts an  
20 extraordinary burden on states and affected communities.

21           It's time for the Commission to take back full  
22 responsibility as a regulator for decommissioning and set up a  
23 framework of maximum protection from risk. We'll cover these and  
24 other issues in our substantial written comments. And thank you again  
25 for the opportunity to comment today, and I'll be happy to answer any

1 | questions.

2 |                   CHAIRMAN BURNS: Thanks, Mr. Fettus. Ms.  
3 | O'Connor?

4 |                   MS. O'CONNOR: Thank you, and thank you so much  
5 | for having me here today. I'm Kate O'Connor, and I'm the Chair of the  
6 | Vermont Nuclear Decommissioning Citizens Advisory Panel, and we  
7 | are pleased that the Nuclear Regulatory Commission has begun the  
8 | process of developing rules for the decommissioning of nuclear power  
9 | reactors and we appreciate the opportunity to comment.

10 |                   By way of background, the Vermont Nuclear  
11 | Decommissioning Citizens Advisory Panel is a 19-member panel  
12 | established by the Vermont legislature in 2014 in response to Entergy's  
13 | announcement that it would close the Vermont Yankee Nuclear Power  
14 | Station in Vernon, Vermont. The panel includes representatives from  
15 | Vermont state government; Entergy; the states of New Hampshire and  
16 | Massachusetts; the host town, Vernon, Vermont; and six citizen  
17 | members of which I am one, having been appointed by the Governor of  
18 | Vermont.

19 |                   You have received written comments from the six  
20 | citizen members and will receive comments separately from the State  
21 | of Vermont and other members of the panel. The citizen member  
22 | comments which I will speak to today reflect the public's desire to play a  
23 | constructive role in the decommissioning process and their desire to  
24 | have the states and host communities have a role in the process, as  
25 | well. After all, it is the communities that host nuclear power plants that

1 face the long-term health, safety, environmental, and economic  
2 challenges when a plant shutters.

3 As I said, you have received comments from the citizen  
4 members of the panel that touch upon the issues that directly impact  
5 the public. Today, I want to focus on one of those: public participation.

6 In the Advanced Notice of Proposed Rulemaking, you  
7 ask if community engagement panels should be required by the NRC.  
8 The 19 members of the Vermont panel come from different  
9 perspectives and have different experiences, but I think any panel  
10 member you ask will say that the Vermont panel has played an  
11 essential role in providing a forum for public engagement in the  
12 decommissioning of Vermont Yankee.

13 The panel has allowed for the dissemination of  
14 information from all parties involved, has allowed the public to express  
15 their views and concerns, provided a forum for open and transparent  
16 discussion, and has established a working relationship between parties  
17 who might not otherwise have worked together.

18 While we agree on the importance of a panel, we might  
19 disagree on how it should be formed. So I will speak from the  
20 perspective of the citizen members.

21 We would recommend a community advisory panel to  
22 all communities facing a plant decommissioning. However, we do not  
23 believe community engagement panels should be mandated by the  
24 NRC since such panels would be formed by the licensee. Instead, the  
25 NRC should recommend that advisory panels be formed by the states,

1 using past and present state panels as models. The NRC should  
2 require the licensee to have one or more representatives on the  
3 advisory panel and provide the resources necessary for the panel to run  
4 effectively. Entergy's involvement on the Vermont panel has been  
5 important to our success.

6 The Vermont panel was established as an  
7 independent body by the Vermont legislature, not the licensee. This  
8 has worked well for us, and we believe the host state and local  
9 community, in consultation with the licensee, should have the flexibility  
10 to establish a panel that will best serve their needs.

11 I want to stress that a community advisory panel  
12 should supplement, not take the place of, the NRC's obligation to seek  
13 public comment or engage with the public through meetings, hearings,  
14 or other means. It is important to recognize that the public's goal is to  
15 see safe decommissioning that will lead to license termination and,  
16 ultimately, re-use of the site.

17 So I want to thank you again for the opportunity to be  
18 here today. As the rulemaking moves forward, I would urge you to  
19 provide opportunities for host states and communities to be actively  
20 engaged in the process. I hope this will include public hearings in the  
21 impacted communities. The Vermont Nuclear Decommissioning  
22 Citizens Advisory Panel is ready and willing to help the NRC facilitate  
23 constructive public engagement in any way we can.

24 CHAIRMAN BURNS: Thank you, Ms. O'Connor and  
25 thank you all for the presentations. And, again, we'll start with

1 | questions from Commissioner Svinicki.

2 |                   COMMISSIONER SVINICKI:     Thank you, Mr.  
3 | Chairman. Again, I want to thank each of you for being here today,  
4 | and I'll take this opportunity to recognize and thank Commissioner  
5 | Baran for proposing this meeting, but really he and his staff have  
6 | marshaled a lot of our efforts to put forward both the previous panel and  
7 | this panel. So I want to commend them for their hard work on that.

8 |                   There isn't a presenter that we've heard from today  
9 | that hasn't given me at least one or two things that I want to go back and  
10 | think more deeply about, so I think this was really a valuable use of the  
11 | Commission's time. And I thank you for proposing it.

12 |                   I want to just expand a little bit on, some reference has  
13 | been made to comments I've made to the staff and to the previous  
14 | panel. While I value efficiency, probably just because I'm a very  
15 | organized person, I value it as an absolute good. I want to be clear  
16 | that my front-of-mind considerations as the Commission receives some  
17 | synthesis of the public comment from the NRC staff and as the Agency  
18 | moves forward is really I think -- at the highest level, there's two  
19 | overriding things that are important to me. One is that there is this  
20 | fiduciary over the prudent and effective use of Decommissioning Trust  
21 | Funds. As a public official, I know they're a separate corporate  
22 | fiduciary, but I feel that we do want prudent use of these funds for  
23 | radiological decommissioning. So that's kind of front of mind to me,  
24 | and that makes efficiency something to really value here, that if these  
25 | funds can be used to advance that, as opposed to other administrative

1 functions, I think I would desire that they be used for that.

2           And, you know, secondly, I just admit that I have  
3 skepticism borne of 25 years of federal government service, and I've  
4 loved my federal government career. But when I mentioned the fact  
5 that reading those words on the page that the staff told or  
6 recommended to the Commission in 2000 or 2001, I forget when it was,  
7 that, well, you know, we really need to pull the plug on this rulemaking  
8 activity because there just aren't going to be licensees to benefit from it.  
9 The probability of a commission sitting here in 2020, 2021, 2022, and  
10 getting that same piece of paper sent forward is not zero. It exists. I  
11 know that we should resource for the workload that we have, but there  
12 is a bit of, and I don't mean this disrespectfully to the NRC staff, but  
13 there is a bit of a hamster wheel that government agencies get on.  
14 They're so busy with processing the work of the moment that, even  
15 though that work of the moment and the hectic nature of it is making so  
16 apparent the way things could be done more efficiently, they don't have  
17 the time to step back and enshrine those improvements. And,  
18 therefore, when they get through that work and they have the time, the  
19 conclusion is there's nobody to benefit from instituting these  
20 improvements.

21           So I do have a pragmatic view of it. I think there is  
22 enough that should be institutionalized here that I just hope -- I think  
23 there are choices between a rulemaking that focuses only on  
24 exemptions, and there's also other licensing actions, and something  
25 that is maybe the biggest broadest-scope rulemaking. I think that the

1 Agency has a lot of choices.

2 My challenge to the staff in their opening overview was  
3 just that I hope that they will think about that, and I challenge them to  
4 think about I don't think it's an all-or-nothing proposition. I think there  
5 are opportunities to sequence it.

6 I would point out Part 35, the medical uses of isotopes,  
7 our regulation in that area. We have had multiple rulemakings ongoing  
8 concurrently to the same parts. It is possible to do. So I just want to  
9 clarify that I think that making things go more efficiently is a good thing,  
10 but that isn't front of mind for me. I have these other considerations  
11 that are in my mind.

12 And with all of that, you know, I'm happy to allow any  
13 panelists to react to that. I also would be curious, since I have taken a  
14 lot out of the other presentations, would any of you like to comment to  
15 anything you heard from the NRC staff or on the state panel that maybe  
16 wasn't in your presentations but is a remark that you'd like to make for  
17 the organizations that you represent?

18 If not, I can speed things along. Mr. Fettus?

19 MR. FETTUS: I think if we were here in 2007 and it  
20 were suggested -- and we were here, Commissioner Svinicki, you and  
21 me, on different issues in 2007. And if I had suggested that in 2016  
22 that there would have been this spate of closures, I would have been  
23 laughed out of the room.

24 That said, I think you even used the phrase earlier, no  
25 one has a crystal ball, and I think prudence here is a watch word and

1 efficiency will be greatly improved, and a lot of contentiousness that's  
2 gone on over decommissioning plans at sites around the country could  
3 be effectively addressed by the broad scope rulemaking that we think  
4 needs to be done here.

5 COMMISSIONER SVINICKI: Thank you. Would  
6 anyone else like to comment? No? Okay. Mr. Chairman, thank you.

7 CHAIRMAN BURNS: Thank you. Commissioner  
8 Ostendorff?

9 COMMISSIONER OSTENDORFF: Thank you,  
10 Chairman. Thank you all for your presentations. Just a couple of  
11 quick questions. I want to ask Gerry a question on Zion's experience.  
12 And I had the chance to be out there about two and a half years ago. It  
13 was very interesting to see. When I was there, there were  
14 segmentation operations going on, so it was a one-of-a-kind operation,  
15 so I appreciated the visit.

16 On your slide three, I just want to make sure I  
17 understood one thing maybe for clarification. You mentioned an area  
18 of concern that was not addressed and that was record-keeping for  
19 abandoned components. Can you spend a minute talking about that?  
20 I'm not sure I understood what that was referring to.

21 MR. VAN NOORDENNEN: Yes. For example,  
22 utilities are required to have radiographs of RCS piping. And if you  
23 looked in 10 CFR 50, there's requirements to maintain those records for  
24 the life of the license. Well, once you're permanently shut down and  
25 you've abandoned those components, there's really no reason to keep

1 | those records. You know, they can fill file cabinets full and things like  
2 | that.

3 |                   COMMISSIONER OSTENDORFF: Okay. Second  
4 | question. Is there a community advisory or engagement panel in place  
5 | there for the Zion site?

6 |                   MR. VAN NOORDENNEN: Yes, there is. They meet  
7 | three or four times a year.

8 |                   COMMISSIONER OSTENDORFF: Can you talk  
9 | briefly about the composition of that group?

10 |                   MR. VAN NOORDENNEN: It's composed of  
11 | community leaders. We have concerned environmental groups. We  
12 | have local political representatives, a state representative, and a state  
13 | senator, and one member is from Energy Solutions. I think there's  
14 | about 12 people on the panel, and once a year we tour them through  
15 | the site. And then we also have invited both NRC Region III and the  
16 | state regulators to come and present to the community advisory panel.  
17 | They've done that a couple of times, and that was very appreciated.

18 |                   So we're trying. You know, if we don't see the  
19 | stakeholders engaging, we almost force them to engage.

20 |                   COMMISSIONER OSTENDORFF: Okay. Thank  
21 | you. Kate, I found your comments very helpful about the composition  
22 | of the panel in Vermont. Just a high-level question. Was it  
23 | controversial as to how the composition of your state's body was  
24 | determined? Was that -

25 |                   MS. O'CONNOR: No, it was actually determined by

1 the Vermont legislature. And to be perfectly honest with you, I think at  
2 the time that it was formed a lot of people weren't even aware that there  
3 was going to be a panel. So the legislature was the one that was the  
4 body that decided who was going to be on it. And as a panel, we have  
5 the opportunity if we want to change that composition, if we want to  
6 make recommendations to the legislature.

7 COMMISSIONER OSTENDORFF: Okay. Is 19  
8 members about the right size, from your experience? Is that --

9 MS. O'CONNOR: It seems to. It sounds like it might  
10 be too big, but it actually works well with us. If we vote on something,  
11 at least we know we can, you know, ten of us --

12 COMMISSIONER OSTENDORFF: Okay. Geoff, it's  
13 always good to see you. Thank you for your comments. Thank you  
14 all.

15 CHAIRMAN BURNS: Commissioner Baran?

16 COMMISSIONER BARAN: Well, thanks to all of you  
17 for being here. I know this panel traveled in many cases to be here, so  
18 thanks for that. It's really valuable to hear all of your perspectives.

19 I wanted to start for a minute with a couple of questions  
20 for Ms. O'Connor and Mr. Fettus, following up on this question of how  
21 do we strike the right balance on state and local stakeholder  
22 involvement in the decommissioning process. And following up on  
23 your comments on Vermont's community advisory board, I want to  
24 make sure I understand what your recommendation is here because I  
25 thought it was pretty interesting.

1                   So your recommendation is we shouldn't actually  
2 mandate the establishment of such a panel because it may be that  
3 states would want to do so, but we should require or consider requiring  
4 the licensee to participate in such a panel if it's established?

5                   MS. O'CONNOR: That's correct because, obviously,  
6 the NRC can't require the state to do something, but they can require  
7 the licensee. And what's worked well for us is that it was not formed by  
8 the licensee. So our recommendation would be that the panel be  
9 formed by the state or another entity and that the licensee be required  
10 to be on it and provide the financial resources to run it. We're more  
11 independent that way.

12                   COMMISSIONER BARAN: What do you think about  
13 the concept of requiring boards to get an opportunity to comment on a  
14 draft PSDAR before it's submitted to NRC?

15                   MS. O'CONNOR: We appreciate that a lot. By the  
16 time the Vermont panel was formed, Entergy had already drafted the  
17 PSDAR and was a week from filing it, so we really, they gave us about a  
18 week of an opportunity to comment. But we would appreciate having  
19 that. We'd like the state to, as well. And I'll throw in that we'd like the  
20 NRC to actually approve the PSDAR.

21                   COMMISSIONER BARAN: Talk to me a little bit  
22 about that last component, the NRC approval of the PSDAR. Why do  
23 you think that's a good idea? Why do you think we --

24                   MS. O'CONNOR: And before people in Vermont start  
25 going crazy, I want to just make it clear that I do not speak on behalf of

1 Entergy. They are members of our panel, but they will speak  
2 separately. So I want to allay all the fears that are going on right now.

3 The PSDAR can be or it should be the guiding  
4 document of the decommissioning process. And right now, because  
5 there is no role of the official approval of it, we sort of feel like it's too  
6 loose. And what people would love to see as a community is knowing  
7 that there are certain commitments that have to be made if the licensee  
8 makes a statement in the PSDAR that they'll actually carry through and  
9 do what they say they're going to do.

10 COMMISSIONER BARAN: Geoff, do you have  
11 thoughts on --

12 MR. FETTUS: I'd like to echo those comments and  
13 say we're a little more agnostic on how the formalized requirement of  
14 some sort of advisory board gets put together, whether it's the state that  
15 does it or whether NRC requires it and then requires the licensee to be  
16 part of it. We're a little more agnostic as to how that gets structured,  
17 but we think it should get structured.

18 The second thing is I'll even go farther on the  
19 opportunity and appreciate the opportunity to comment on the PSDAR.  
20 We think it's crucial that it be done, and that's a bare minimum. As  
21 we'll explain longer in our written comments, the idea of this requiring  
22 NEPA compliance we think is also very clear. And we're not talking  
23 about a full-blown EIS in any way. We're just talking about a  
24 supplement, but we think it's a very necessary supplement. And that,  
25 in conjunction with a much more formalized planning document that's

1 drafted first, that goes through a citizens advisory board that has all the  
2 relevant players from industry to everyone else who wants to get into  
3 the pool, no pun intended, I think will produce much more of the  
4 certainty that all the parties want to go forward.

5           And I think it's not like you don't have the time because  
6 this is a multi-year process that many communities don't understand  
7 sometimes when they come to the realization that both it's shutting  
8 down, which can be dislocating and harmful for a community in terms of  
9 worried about jobs, worried about what the local impacts are going to  
10 be, to also realizing work is going to necessarily go on at the site for  
11 years and years and years because it's not, the reactor fuel rods are not  
12 going to be removed from the pools immediately, you're certainly not  
13 going to be getting into cutting up reactor vessels for years and years  
14 and years, just for worker safety if nothing else.

15           So the work process is going to be necessary and  
16 long-term, and there's a lot of time to do this right with all the parties.

17           COMMISSIONER BARAN: Let me follow up on a  
18 comment you made on the Emergency Response Data System. It  
19 sounds like you would be supportive of us considering requiring that  
20 ERDS continue to be operational for at least the data points that are  
21 relevant to a spent pool fuel. Did I understand your comments  
22 correctly?

23           MR. FETTUS: Yes, that's correct.

24           COMMISSIONER BARAN: Ms. O'Connor, do you  
25 have thoughts about that issue?

1 MS. O'CONNOR: Yes, we agree, too. And we also  
2 agree to, you know, the tiered approach to all the emergency  
3 preparedness.

4 COMMISSIONER BARAN: Okay. And let me hit on  
5 another issue, which is the three broad decommissioning options and  
6 the time frames associated, well, the overall time frame which is  
7 currently 60 years, the requirement for decommissioning to be  
8 complete in 60 years. So the options, obviously, are decon,  
9 decontamination; SAFSTOR, which could go up to 60 years; and then  
10 ENTOMB.

11 Let's just start for a second with ENTOMB. Do you  
12 have thoughts about the appropriateness of maintaining ENTOMB as  
13 an option in our regulatory guidance?

14 MR. FETTUS: I mean, it's certainly appropriate with  
15 Chernobyl, but that's not in your wheelhouse, as Chairman Burns might  
16 say. And in the event of an accident, I think it's something that the  
17 Commission could do as a one-off. But, no, and I'll leave it to my  
18 colleagues who spoke earlier for the state panel, which is the idea of a  
19 site essentially being gone for decade after decade after decade from  
20 productive and constructive local use is a tremendous hardship both in  
21 land-use planning and a whole bunch of other reasons. And so, no,  
22 ENTOMB should go away. And as I said briefly in my short statement  
23 here, we think it's time to dramatically revise SAFSTOR because we  
24 think work is going to go on for years in any event, but there can be a  
25 good middle road to provide a good set of incentives at expeditious

1 closure that protects both worker safety and aids communities and  
2 ends with a good environmental clean-up.

3 COMMISSIONER BARAN: Do you have thoughts  
4 about that, on those issues, on either ENTOMB or the 60-year time  
5 frame for decommissioning?

6 MS. O'CONNOR: Yes. And in the comments, the  
7 formal comments that the citizen members of the panel have submitted,  
8 we talk about SAFSTOR, and we don't want to see it 60 years. We'd  
9 like to see it, ideally, 10 years.

10 What is happening up at Vermont Yankee is that the  
11 reason that the 60 years is going to be drawn out up in Vermont is  
12 because of the lack of money in the Decommissioning Trust Fund. So  
13 what we don't like to see is that the time frame is being hooked to when  
14 the Decommissioning Trust Fund is funded, so the prompter the better.

15 COMMISSIONER BARAN: Okay. And let me, I  
16 think I can also finish a little bit early, but let me just ask the rest of the  
17 panel. On the question of ENTOMB, does anyone see a scenario in  
18 which a licensee would ever use ENTOMB?

19 MR. MCCULLUM: No.

20 MS. COWAN: No, I don't.

21 COMMISSIONER BARAN: Would anyone have any  
22 heartburn if that were not an option in our regulatory guidance,  
23 ENTOMB rather than cleaning up the site?

24 MR. VAN NOORDENNEN: I would only say I'm not  
25 sure that just getting rid of an option that nobody is ever going to use is

1 justification for a rulemaking, given Project Aim needs for efficiency.

2 MR. MCCULLUM: I agree with that. I don't think it  
3 would make good sense to do a rulemaking just to look at that one  
4 issue, especially since I think it's just in a regulatory guidance as  
5 opposed to in our regulations.

6 COMMISSIONER BARAN: Okay, thank you.

7 CHAIRMAN BURNS: Thanks very much for the  
8 presentations again. I want to take off on some of the questions that  
9 Commissioner Baran had. What I'd like to hear, and maybe Mr.  
10 McCullum or Ms. Cowan can address it, in talking about a limited scope  
11 rule and one of the, as I understand the industry perspective is a  
12 rationale for such a rule is, in effect, an efficiency in terms of what I'll  
13 broadly call or staff likes to broadly call licensing actions, which can be  
14 any number of things. They can be license amendments; they can be  
15 exemptions, other types of things.

16 What are you seeing -- how are those efficiencies  
17 achieved? Is it in the sense that there are not multiple numbers of  
18 these actions, that it's reduced to a few things? I'm trying to  
19 understand where you see the efficiency coming from.

20 MS. COWAN: I guess, you know, when we started  
21 looking at this, and especially because we had to look at it because  
22 we're going into Oyster Creek's decommissioning in 2019, what we  
23 looked at was, you know, what exemptions were being approved and,  
24 you know, across all four plants, so not necessarily something that was  
25 so site specific that it was only at one plant requested. It was the

1 | exemptions that were requested across the four sites and other  
2 | licensing actions and what was driving those to be submitted. And  
3 | then we looked at the regulation and, with the basis for those  
4 | exemptions, we adjusted the language in the regulation justified by the  
5 | same basis that was used for those exemptions so that now, instead of  
6 | requiring an exemption or a licensing action, the words in the regulation  
7 | or proposed regulation would not require it. And that makes it so much  
8 | more efficient but also easier to plan things out and to communicate  
9 | where we are.

10 |                   We didn't go outside that box necessarily because we  
11 | intentionally wanted to stick with what's been approved. And in some  
12 | of the documents, you know, that have approved these, it's been stated  
13 | this has been approved the prior 12 times. You know, there's  
14 | language to that effect. So we tried to stay very close to the safety  
15 | basis of what's been approved and what we believe, if we come in with  
16 | exemptions, would be approved. Of course that's never, you know,  
17 | assured, but that's how we developed it.

18 |                   And in looking back at the product, and I looked at this,  
19 | you know, with a team of folks, you know, my organization, a broad  
20 | team of folks, and in looking back at it, if that language is implemented,  
21 | it will eliminate, at this time, you know, when we look at it, it will  
22 | eliminate the need for any exemptions for Oyster Creek, as well as  
23 | eliminate some significant licensing submittals.

24 |                   CHAIRMAN BURNS: So what --

25 |                   MS. COWAN: It will be impactful.

1 CHAIRMAN BURNS: -- what do the submittals look  
2 like then, do you think, after the proposal? The PSDAR?

3 MS. COWAN: You'd still submit your permanent, you  
4 know, cessation of operations, you'd still submit a PSDAR, you would  
5 still submit a spent fuel management plan, I believe. You'd still submit  
6 cost estimates, still submit a license termination plan. There are a few  
7 others that would still be required unless, you know, industry guidance  
8 were to be formed or NRC guidance were to come out that would allow  
9 something generic to be recognized. But from a rule perspective, it  
10 would eliminate all of the exemptions and a lot of the other licensing  
11 actions.

12 MR. MCCULLUM: Yes. You wouldn't be seeing any  
13 submittals for transition and risk from the points that we outlined earlier.  
14 I think Vermont Yankee has submitted and approved mostly 12 of  
15 those. The other eight I think the staff indicated they'd process seven  
16 of those. The efficiency comes both from the cost of literally preparing  
17 and reviewing the exemptions, as well as, while you're waiting for the  
18 exemption to be approved, you're still expending resources to be in an  
19 operating plant posture that you would not otherwise be expending.

20 CHAIRMAN BURNS: Okay. And I presume in that  
21 context there are exemptions or there are things that are more  
22 significant than others that we talked a little bit on and the question of  
23 and, you know, of the issue on pulling back from emergency  
24 preparedness versus having an on-site, I mean, what I'll almost call --  
25 it's a silly example, silly from our side, not from how it's presented by

1 Mr. van Noordennen , but regarding continuing presence of a resident  
2 office or on-site office. You know, we ought to be able to move through  
3 some of those things. Some of these other issues, you know, they're  
4 more significant, there's sort of significance to.

5 Mr. Norton, what I'd be interested in, given the Yankee  
6 plants, several of which I visited when they were operating still, and that  
7 tells you how long I've been around, but in terms of, and I'm thinking  
8 about Rowe and particularly Maine Yankee, while you have the ISFSI  
9 there, what has happened with the rest of the property? Tell me what's  
10 happened on what was originally the site, what was considered the site  
11 boundary, and what there is now because some of those may have  
12 gone to a green field type situation.

13 MR. NORTON: Yes, Mr. Chairman. At Maine  
14 Yankee specifically, the license was terminated in 2005 for the power  
15 plant reduced to the dry fuel storage facility. But prior to that, we had  
16 eliminated other properties that we had that were adjacent to the power  
17 plant in a phased approach. One of those was donated to an  
18 environmental organization, and one was sold off and re-developed.  
19 So it's a little different depending on the site.

20 In the case of Connecticut Yankee, we've reduced the  
21 license to the ISFSI and retained the property that was in the license, in  
22 part because we've got to use it to get to the ISFSI property. So it's  
23 continuous with and part of process.

24 In the case of Rowe, we've reduced, again, the license  
25 to the ISFSI only and have retained all the buffer property for various

1 business reasons. But the only one that really has reached what I'll  
2 call the green field condition is Connecticut Yankee. The license has  
3 been terminated at the plant facility and both the EPA and the state  
4 have considered it green field and we terminated ground  
5 water-monitoring program. And it's truly suitable for re-use, but for the  
6 fuel.

7 CHAIRMAN BURNS: Okay, all right, thanks. You  
8 mentioned this issue that sites that have gone, basically, on ISFSI only,  
9 you know, aren't really in the same category as those that still have, you  
10 know, where you're deconstructing buildings that have been used  
11 during the period. And I know we have under our regulation, we have  
12 Part 72. Many of these ISFSIs are probably still under Part 50. Is  
13 there something that needs to be changed to achieve a compatibility or  
14 improve the situation? Because it sounds like, sort of drawing off the  
15 other thing is those folks are going into decommissioning, there are  
16 things that make the requirements, make them still look like or need to  
17 adhere to things that are important for operating facilities, but for your  
18 situation you have ISFSI pads or stations or the remaining part of the  
19 facility, which is much different than they've got. So is there something  
20 different? Is there something we ought to be looking at in terms of  
21 making better compatibility or better fit for those that get down to the  
22 point in ISFSI only?

23 MR. NORTON: Thank you for that question. And  
24 part of it is, I think, what Gerry alluded to. When you get beyond, I  
25 think, the transitional phase that ANPR was, focused on largely driven

1 | by major risk reductions, focused on fuel movement to dry storage, but  
2 | not necessarily the full decommissioning of the reactor itself, is a host of  
3 | activities that take place through the physical decommissioning  
4 | process, like at Zion. And Gerry is probably the best person in the  
5 | country to speak to it because he's done it three times.

6 |           But there is a process even after you get to dry storage  
7 | where there's licensing actions, exemptions, amendments, and other  
8 | things that take place. As you go through that end of the transition, so  
9 | you look like an ISFSI only, you end up at an ISFSI-only configuration,  
10 | you do that through modifications with the Part 50 and you end up at a  
11 | position that's substantially similar or aligned to site-specific Part 72  
12 | requirements, to a large extent. And so that's a continuous process  
13 | again. Things like document control, we don't have any of those.  
14 | Certified fuel handlers, there a thing of the past for us. We've got, you  
15 | know, ISFSI security supervisors that have largely the responsibility for  
16 | managing the facility.

17 |           So it continues to evolve to that point, if that answers  
18 | your question.

19 |           MR. VAN NOORDENNEN: There is an inconsistency  
20 | in Part 72 between a site-specific ISFSI license and a general Part 50  
21 | license in that one requires an alert level still to be there and the other  
22 | one does not. And so, lately, licensees had been going to more the  
23 | conservative level, the alert level, but the regulations under Part 50  
24 | would still allow a lower level, so there is an inconsistency there and it  
25 | needs to be corrected.

1 CHAIRMAN BURNS: Okay, okay. If my colleagues  
2 indulge one last question, one of the comments I think, Mr. van  
3 Noordennen, you made with respect to use of decommissioning funds  
4 for, I guess in this context, stranded large components. I think you're  
5 talking about even before the end of plant life.

6 MR. VAN NOORDENNEN: Yes.

7 CHAIRMAN BURNS: And I know the Commission  
8 has had that issue come up before, but I think what I thought I heard is  
9 that you said in that context it would, in your point of view, that would be  
10 an appropriate step, but it would require us to look at the issue of the  
11 funding stream because I think that's one of the reasons the  
12 Commission has not gone down that path, as I understand it, before is  
13 because it's not accounted for currently in that stream. Did I  
14 understand you correctly?

15 MR. VAN NOORDENNEN: Yes, that's correct. And,  
16 you know, these large components, like steam generators or reactor  
17 vessel that are just sitting there as rad waste storage, are actually  
18 included, in many cases, in the total fund for the decommission cost  
19 estimate, but you can't tap into those funds until right now the plant has  
20 permanently shut down and provided the certifications under 50.82.  
21 So that's why we're proposing that you can, again, reduce that  
22 radiological footprint early on with funds that are available and targeted  
23 for those components while the plant is still operating, instead of waiting  
24 another 20 - 30 years until the funds currently could become available.

25 CHAIRMAN BURNS: Okay. Mr. Fettus, do you have

1 any thoughts on that?

2 MR. FETTUS: First I've heard of it today.

3 CHAIRMAN BURNS: Okay, all right. Well, I want to  
4 thank, unless my colleagues have any final questions, I want to thank  
5 you all for being here as our second panel. I think we've had a rich  
6 discussion this morning, and I want to add my thanks to Commissioner  
7 Baran for suggesting this meeting, as some of my colleagues have also  
8 noted today. And I'm pleased we've had this opportunity to discuss  
9 this topic.

10 As you've heard a number of times, coming up March  
11 18th is the time, so do not get distracted by March Madness. Get your  
12 comments in. Turn off the TV until you get them in on the 18th. We  
13 look forward to hearing from all of you, both representing this panel,  
14 from our earlier panel, the states, and all those others who may wish to  
15 comment on this.

16 And with that, we stand adjourned.

17 (Whereupon, the above-referred to matter went off the  
18 record at 12:12 p.m.)

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