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Greater-than Class C (GTCC) and
Transuranic Waste Public Meeting

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
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PUBLIC MEETING
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DRAFT REGULATORY BASIS FOR THE DISPOSAL OF
GREATER-THAN CLASS C (GTCC) AND TRANSURANIC WASTE

Tuesday, August 27, 2019

6:00 p.m.

Marriott Renaissance Austin Hotel
Sabine Room
9721 Arboretum Boulevard
Austin, Texas

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P R O C E E D I N G S

6:00 p.m.

MR. CAMERON: Good evening, everyone. My name is Chip Cameron, and I'd like to welcome you to the public meeting tonight. And I'm going to serve as your facilitator tonight. And in that role, I'll try to help all of you to have a productive meeting tonight.

The topic tonight is the NRC, Nuclear Regulatory Commission, draft regulatory basis for the disposal of greater-than-Class C waste and transuranic waste. We're going to try to cut down on the acronyms tonight, but three that you will hear are NRC for Nuclear Regulatory Commission. You're going to GTCC, for greater-than-Class C; and you're going to hear TRU, for transuranic waste.

And our objectives are simply stated, but we hope they're not too hard to achieve. One is to make sure that the NRC gives you clear information on their draft regulatory basis on GTCC. And the second objective is to give the NRC an opportunity to listen to your advice, your comments, your concerns about this particular subject. And we're going to start with some brief presentations from the NRC staff.

And Trish Holahan, who I'll introduce in

1 a minute, is going to introduce them to you, but then
2 we're going to go all out to you. We have people who
3 are on the phone also, and some of them may want to
4 speak. And --

5 VOICE: You've lost audio, Chip.

6 MR. CAMERON: Okay. I was going to go and
7 alternate between those of you in the audience and
8 those of you on the phone, but we just have several
9 speakers here in the room, so I'm going to go to all
10 of you in the room first, and then I'm going to go to
11 Marcus, our operator, who will then put through the
12 people who are on the phone who want to talk to us.

13 And thank you for signing up here in the
14 room to speak. That gives me an idea of how much time
15 we're going to have to have, and I would just ask all
16 of you to try to keep it to five-minute guideline for
17 your comments, and if you have questions, the staff is
18 going to be here to answer those particular questions.
19 We are taking a transcript tonight, and Donna is our
20 court reporter. So when you do get up to speak, just
21 please clearly introduce yourself, so that she can
22 correctly identify on the transcript.

23 And with that -- oh, one other thing.
24 Radio station KUT did a public service announcement,
25 and we thank them for that, about the meeting tonight.

1 But in addition to the topic of GTCC, they also said
2 that this meeting was going to address the proposal
3 for an interim storage facility in Andrews, Texas.
4 Well, that's wrong, and I apologize to anybody who
5 came to the meeting just for that purpose of talking
6 about interim storage, and we'll gladly listen to you
7 if there's anybody here that did come solely for that
8 purpose, but we're going to give priority to the
9 people who are here to talk about GTCC.

10 And let me introduce Trish Holahan. She's
11 the director of the Division of Decommissioning
12 Uranium Recovery and Waste Disposal at the NRC --
13 Waste Programs. Waste programs. Sorry, Trish. Why
14 don't I turn it over to you to introduce everybody.

15 DR. HOLAHAN: Okay. Thank you, Chip. And
16 welcome and good evening to everybody coming out on an
17 evening. I hope it doesn't rain.

18 VOICES: We hope it does.

19 DR. HOLAHAN: You're hoping it does? Oh,
20 okay. I stand corrected. I came from Maryland, and
21 it was pouring. So, anyways, I'm Trish Holahan, and
22 as Chip mentioned, I just took over the Division of
23 Decommissioning Uranium and Recovery and Waste
24 Programs from John Tappert. He and I switched
25 positions, so he's now doing rulemaking in the Office

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1 of Nuclear Material and Safety and Safeguards.

2 This organization led in the development
3 of the draft GTCC regulatory basis, which is a tool
4 that the NRC uses to examine the technical, legal,
5 policy, and administrative components of a regulatory
6 issue when considering whether to enter rulemaking.
7 So this is at the pre-rulemaking stage. In addition,
8 the information in the draft regulatory basis should
9 be considered preliminary.

10 With me in the room are Cardelia Maupin,
11 the senior project manager of this project who's going
12 to be speaking; Andy Pessin from our Office of General
13 Counsel; Tim McCartin, who's a senior level advisor
14 for performance assessment.

15 Also in the room are Dave Esh in
16 performance assessment; Steve Koenick, the branch
17 chief responsible for this project; Fred Schofer; and
18 Steve Dembek; oh, and Bill Maher. Sorry. I'm looking
19 for them. But, anyways, they're all here.

20 And we're -- because various disciplines
21 were needed to examine the GTCC waste disposal, this
22 work group was comprised of several different offices,
23 including the Division of Waste -- of Decommissioning
24 and Uranium Recovery and Waste Programs. Also it
25 included the MNSS Division of Rulemaking for cost

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1 analysis and the rulemaking PM, the Division of
2 Material Safety, Security State and Tribal Programs
3 for agreement, state and tribal interactions; the
4 Division of Spent-Fuel Management for performance
5 assessment and criticality and safety analysis;
6 obviously our legal counsel and the Office of General
7 Counsel; and the Office of Nuclear Security and
8 Incident Response to address security and safeguard
9 issues.

10 In addition, contractual support was
11 provided from the Center for Nuclear Waste Regulatory
12 Analysis, Southwest Research Institute in San Antonio,
13 and then as background information, in 2018, the NRC
14 issued a Federal Register notice and held two public
15 meetings seeking stakeholders' input relative to the
16 identification of potential issues associated with
17 greater-than-Class C waste disposal.

18 These activities, along with the comment
19 letters received in response to the Federal Register
20 notice helped to inform this draft regulatory basis
21 which we're going to talk about more. And so the NRC
22 staff looks forward to discussing the draft regulatory
23 basis with you at today's webinar, and then I will
24 turn it over to Cardelia to go through her
25 presentation.

1 MR. CAMERON: Okay. And just one note.
2 Bill Maher, who's back there, is the state liaison
3 officer for NRC Region IV in Arlington, Texas, and
4 he's also hoping that it rains, so --

5 DR. HOLAHAN: Sorry.

6 MS. MAUPIN: Can everybody hear me okay?
7 Good evening. It is my pleasure to talk to you today
8 about the GTCC draft basis. You might be asking, why
9 are we here. What's the purpose of this meeting?

10 If you know anything about the NRC, one of
11 the things that we believe as one of the principles of
12 good regulation for nuclear materials is that nuclear
13 regulation is the public's business. And it must be
14 transacted publicly and candidly, so the public must
15 be informed about what we're doing and have the
16 opportunity to participate in the regulatory
17 processes.

18 So that's why we're here today. We're
19 here seeking your help. We're looking for stakeholder
20 participation and involvement in this issue called
21 greater-than-Class C waste disposal. I will be
22 referring to it as GTCC, because transuranic waste,
23 what we've seen from looking at the various waste
24 streams, is basically a subset of greater than Class
25 C.

1 So we anticipate today that we can assist
2 you in your public comments on the draft regulatory
3 basis for the disposal of greater than Class C, answer
4 some of your questions, clarify any issues. And this
5 supports NRC's openness, strategies, and also the
6 cumulative effects of regulation initiative, where we
7 seek to provide -- we seek input from those who might
8 be potentially affected by any proposed regulatory
9 action that we might take. Next slide, please.

10 Okay. I just -- the next slide, please,
11 slide number 3. We're on slide number 3.

12 Now I would like to talk to you about this
13 thing called low-level waste disposal as it pertains
14 to Part 61. If you know anything about the history of
15 waste disposal in this country, there was a point we
16 didn't have any regulations specifically for low-level
17 waste. That came about in 1982 when NRC put together
18 the Part 61 regulation for low-level waste disposal.
19 Prior to that, the Low-Level Waste Policy Act of 1980
20 defined low-level waste in terms of what it was not.

21 It was not classified as high-level
22 radioactive waste, not transuranic waste, not spent
23 nuclear fuel, or not byproduct material as defined in
24 Section 11(e)2 of the Atomic Energy Act of 1954. So
25 it was only after the NRC promulgated its regulations

1 in Part 61 that we established a classification system
2 where we classified low-level waste as Class A, B, C,
3 and this concept of those wastes being greater than
4 Class C.

5 This waste is based -- the system in which
6 waste is classified is based on the radiological
7 hazard, depending on the type and quantity of
8 radionuclide in it. Thus, Class A would be the least
9 hazardous. Class C would be even more hazardous, and
10 greater than Class C would be even more hazardous than
11 that.

12 Basically what Part 61 says in its
13 classification system in 61.55, paragraph 4, waste
14 that is not generally acceptable for near surface
15 disposal is waste for which form and disposal methods
16 must be different and in general, more stringent than
17 those specified in Class C waste. So that's how we
18 have this concept of greater-than-Class C waste.

19 In addition, as you look at Part 61, you
20 will see that there are some radionuclides which we
21 call transuranic nuclides that are in our
22 classification system. But as I just told you, in
23 1980, we had that low-level waste policy amendment,
24 Low-Level Waste Policy Act, that said transuranic was
25 not in the definition. Subsequently, the Low-Level

1 Waste Policy Amendments Act of 1985 no longer excluded
2 transuranic waste from the definition of low-level
3 waste. Problem is we have not updated NRC's
4 definition of low-level waste since we passed it in
5 the 1982-83, to incorporate this new concept of low-
6 level waste, and that's what one of the things that
7 this group has been charged to do is to look at the
8 definition of transuranic waste and to add it to the
9 definition of low-level waste in Part 61 regulations.

10 Next slide, slide number 4. In this
11 slide, you will see that there are currently four
12 operating low-level waste disposal facilities in the
13 United States: Washington; Utah; as you know,
14 Andrews, Texas, Waste Control Specialists; and the
15 EnergySolutions in Barnwell, South Carolina. All of
16 these are in agreement states. They're all
17 regulated --

18 And if you don't know what an agreement
19 state is, let me just define that quickly for you. It
20 is a state that has entered into an agreement with the
21 NRC whereby we would relinquish our authority, and
22 then the State would assume that authority and
23 exercise its regulatory responsibilities in that area.
24 So all of these states are agreement states. And all
25 of the four currently operating low-level waste

1 facilities are regulated by agreement states, and all
2 of them accept A, B and C, except for the facility in
3 Utah.

4 Next slide, please. At present, the most
5 comprehensive information that we have about this
6 concept of greater-than-Class C waste has been
7 outlined in the Department of Energy final EIS on what
8 is called greater-than-Class C waste and greater-than-
9 Class C like waste. And you might be asking the
10 question, what is the difference between greater-than-
11 Class C and this concept of greater-than-Class C like
12 waste.

13 Well, the Atomic Energy Act gave the NRC
14 authority -- and as I said, we can give that authority
15 to the States, so that waste that is generated by NRC
16 licensees and agreement state licensees, that waste --
17 that GTCC waste is called GTCC waste. The waste that
18 is generated by the Department of Energy that is not
19 non-weapons-related, GTC-like waste but is done under
20 DOE's authority, that is called GTCC-like waste.

21 So right now that whole universe of GTCC-
22 like which was discussed in the Department of Energy
23 final environmental impact statement is categorized
24 into three areas. Activated metals, that's the
25 internals of reactors. The second one representing

1 sealed sources, these are used in industrial and
2 medical applications. And there's a big wide open
3 third category called other waste, which could include
4 waste generated from decommissioning, or in this case,
5 these are glove boxes that might have been
6 contaminated and now is considered, you know, waste.

7 Next slide, please. We were in --

8 VOICES: Something wrong with the
9 microphone. We can't hear you. Your audio's gone.

10 MS. MAUPIN: Oh, thank you.

11 VOICE: You're back on.

12 MS. MAUPIN: Okay. Sorry about that.
13 Thank you.

14 Okay. Now we're on slide number 6. Now,
15 in this slide, we're going to talk about whose
16 responsibility is it. Greater-than-Class C waste
17 disposal was assigned a federal responsibility as a
18 part of the Low-Level Radioactive Waste Policy
19 Amendments Act of 1985. Basically it said that the
20 NRC is to license the facility and determine whether
21 or not it is adequate to protect the public health and
22 safety.

23 That act also required DOE to submit to
24 Congress a report with recommendations and options for
25 the safe disposal of all GTCC waste, the waste that's

1 generated by NRC in agreement states, and those that
2 are generated by DOE programs. And DOE completed that
3 in February of 1987.

4 Subsequently, about 20 years, nothing
5 happened on this whole issue of greater-than-Class C
6 waste disposal, so Congress, in 2005, as a part of the
7 Energy Policy Act, assigned a number of
8 responsibilities to DOE. Firstly, DOE was to do all
9 the various things needed to provide for greater-than-
10 Class C waste disposal, some of which was, one, that
11 in February of 2011, DOE issue a draft environmental
12 impact statement. Subsequently in February of 2016,
13 they finalized that environmental impact statement.

14 Another one was that they were to provide
15 a report to Congress on the various alternatives for
16 the disposal of greater-than-Class C waste, which they
17 did in November of 2017. And now we are -- there has
18 been no action by Congress on that report. And in
19 that report, there were two considerations in that
20 November report. One was to use the waste isolation
21 pilot plant as a potential source or potential
22 location of GTCC disposal, and the second one being a
23 commercial low-level waste facility.

24 Next slide, please. On slide 7, we talk
25 about what the NRC has been doing. We talked about

1 what DOE has been doing. Now we're going to talk
2 about what NRC has been doing on this issue.
3 Basically in January of 2015, the State of Texas
4 requested clarification on agreement state authority
5 to regulate greater-than-Class C waste. In turn, the
6 staff in July of that year issued historical and
7 current issues paper related to the disposal of
8 greater-than-Class C waste.

9 They submitted that to our body called our
10 Commission. In turn, the Commission gave the staff
11 some direction in the December 2015 SRM which
12 basically has brought us here today. They directed
13 the staff to prepare a regulatory basis for the
14 disposal of greater-than-Class C waste through a means
15 other than a deep geologic disposal repository, and
16 also initially this was to be done after the
17 completion of the Part 61 rulemaking. In addition,
18 they directed us to address this whole issue of
19 transuranic waste, the definition of transuranic waste
20 in Part 61.

21 Subsequently, in October of 2018, of last
22 year, the Commission directed the staff to decouple.
23 We no longer want you to do this in conjunction with
24 the Part 61 rulemaking effort. We want you to move
25 forward, so we can do things like we're doing today,

1 engage the public, see if there are any regulatory
2 issues that we need to get out in front of. Talk to
3 our stakeholders. And that's what we're here doing
4 today, and that's why we issued the draft regulatory
5 basis.

6 Next slide, please. Now we're on slide
7 number 8, and we're talking about why we're here. We
8 published just a few weeks ago, on July 22, a Federal
9 Register notice about this draft regulatory basis,
10 requesting your review and comment, and we had a
11 webinar on August 22. We're here today, hosting this
12 public meeting. Right now our -- which we have a 60-
13 day comment period, which is to end on September 20.

14 Now I'm going to turn this over to my
15 colleague, Mr. Tim McCartin. Thank you.

16 MR. McCARTIN: Thank you, Cardelia, and if
17 I could have the next slide. Okay. In terms of the
18 regulatory basis, just a little discussion of the
19 process we did and what the results were. And as
20 Cardelia said, use the inventories that were presented
21 in DOE's final EIS for greater-than-Class C disposal.

22 However, we subdivided the information
23 into 17 specific waste streams. You will not see 17
24 specific waste streams in the EIS. You see the
25 broader categories of sealed sources, activated

1 metals, and other waste. However, there is a
2 reference in our reg basis, NRC 2019, a staff report,
3 that we fully explain how we got our 17 waste streams
4 from the DOE's EIS.

5 The reason we did that, as you'll see, one
6 of the important considerations is the hazard to the
7 intruder. An intruder might drill through a
8 particular waste container, and depending on what
9 waste is in that particular container, the hazards are
10 quite a bit different, as there's a fair amount of
11 variability among these 17 waste streams.

12 So, secondly, we did present three
13 alternatives for implementation of GTCC disposal under
14 10 CFR Part 61. Now, I'll say for all three of those
15 alternatives, the process would be the same in that
16 some -- a disposal facility seeking a license would
17 have to prepare an application and submit it to a
18 regulatory authority for review and approval. That
19 would not differ between those three alternatives.

20 However, as you can see, the three
21 alternatives, one is no regulatory change. And by
22 that, in 10 CFR Part 61, the Commission is allowed to
23 look at that on a case-by-case basis. The downside of
24 that is that there's no information, either in our
25 regulations or in guidance, that says how the NRC

1 would evaluate that application. What are they --
2 what are the requirements for the disposal?

3 And so when the NRC would review it, we
4 would have to explain why we either approved or denied
5 on what bases, but there would be no changes to the
6 regulation. On the flip side, if we conducted a
7 rulemaking, the rulemaking would provide the
8 requirements that we would use to decide whether
9 disposal was safe or not.

10 And so -- and in between the two -- those
11 are the two extremes, one where someone preparing an
12 application doesn't know the requirements, but yet
13 they submit an application, what they think would be
14 safe. The NRC would be required to review it and come
15 up with criteria for reviewing it at that time. With
16 a rulemaking the applicant ahead of time already knows
17 those requirements. In between there would be
18 guidance, but it doesn't have the force of a rule.

19 And so that really is -- the difference of
20 those three alternatives is not -- there will always
21 be an application and regulatory review, but how much
22 information is available to the public and to the
23 developer of a potential disposal site when they're
24 submitting an -- a license.

25 In terms of the results, we found the

1 majority of those 17 waste streams were potentially
2 suitable for near-surface disposal. Volume-wise that
3 was approximately 80 percent. Now, we very
4 intentionally are using the words "potentially
5 suitable." We did not say it was suitable, and so do
6 not separate those two, in that it requires someone to
7 come forward.

8 What exactly are you going to be disposing
9 of? What's your facility design? What are the site
10 characteristics, and the evaluation of whether that
11 would be safe or not, and that's why it's potentially
12 suitable. We are certainly not saying, it's suitable
13 everywhere. It can be done -- we are not giving a
14 pass. The analysis has to be done.

15 Of that 80 percent that was found
16 potentially suitable, approximately 95 percent of it
17 was suitable, could be regulated by an agreement
18 state. That 5 percent that wasn't suitable had to do
19 with requirements for common defense and security.
20 That is a requirement that's left solely to the NRC
21 and is not relegated beyond the NRC. And so that's
22 where that -- the 5 percent that isn't there, it had
23 to do with the special nuclear material and some of
24 the waste that is a security concern.

25 Next slide, please. In terms of the waste

1 volumes, there's approximately 12,000 cubic liters of
2 GTCC waste. And DOE had two categories, category I
3 and category II. The category I was expected or
4 existing GTCC waste, and that's waste that a decision
5 has already been made to license a facility that would
6 be generating waste of that nature and/or waste that
7 already exists. And the best example, I think, is for
8 commercial reactors.

9 Most of the GTCC waste generated from
10 commercial reactors is when they're decommissioned.
11 There are not many decommissioned nuclear facilities.
12 Most are operating, so the GTCC waste there is
13 existing, but they're also accounting for these
14 facilities that already exist. They haven't generated
15 the waste yet, but it will be generated when they're
16 decommissioned.

17 That's different than the category II,
18 which is considered potential waste. Potential waste
19 is there isn't a decision made to license a facility
20 that would generate the waste or any activities that
21 would generate that waste. And until a decision is
22 made, it's possible a decision is made not to generate
23 and license those facilities.

24 Once again, I'll draw upon commercial
25 reactors. There was an estimate, I think, of

1 approximately 37 new nuclear reactors would be
2 developed in the future in the DOE FEIS, and that
3 waste is potential. Is that a accurate estimate?
4 Today no one knows. They were just making a
5 projection. And, remember, one of the purposes of an
6 EIS is to estimate what might happen. And so they
7 estimated things like that. There are other
8 activities.

9 And so that's the difference between the
10 potential and the existing. You can see it's
11 approximately 50-50. About half of it is potential,
12 and half of it is existing. The two different colors,
13 the blue color is for GTCC waste, and the solid color
14 is existing. And the dashed color is potential. And
15 then for GTCC-like, which is approximately, I'll say,
16 25 percent, and equally distributed between the
17 potential, the solid color, versus -- or existing for
18 the solid color and potential for the hashed color.
19 Those are the volumes.

20 Next slide, please. You heard Cardelia
21 talk a little bit about transuranic waste. In NRC's
22 regulations at 10 CFR Part 61, concentrations of
23 transuranic radionuclides greater than a hundred
24 nanocuries per gram are considered greater-than-Class
25 C waste. One might call that transuranic waste.

1 And while we don't have to know exactly
2 what a hundred nanocuries is, on this chart, you can
3 see these first two bars, this one is less than ten
4 nanocuries. This bar is greater than ten, but less
5 than a hundred. So this would not be considered
6 greater-than-Class C waste for transuranics, but you
7 can see there is a significant amount of waste that is
8 greater than a hundred nanocuries per gram and would
9 fall into the transuranic waste arena. And so that's
10 what that slide is showing.

11 It does vary significantly from waste
12 streams, but that shows you the extreme is less than
13 ten to greater than 10,000, so there's quite a range,
14 and that was one of the motivations for doing the 17
15 waste streams, to accurately represent and see what
16 volumes were associated with specific concentrations
17 of transuranic radionuclides.

18 Next slide, please. We did have to make
19 some assumptions in doing the analysis. As has been
20 discussed, it is near-surface disposal, so we did look
21 at near-surface disposal. That's the upper 30 meters
22 of the surface. The average disposal thickness was
23 approximately one waste package. We did do -- vary
24 that a bit, but on average, we're looking at one
25 package.

1 Where is that significant? If you think
2 of a potential intruder drilling through the waste, if
3 he's drilling through one waste package, he gets one
4 waste package worth of waste. If they're double-
5 stacked, he's going to get two waste packages. Now,
6 the reason we did one, it's easy to scale up to, well,
7 if you have two, you have twice as much waste. And
8 so -- but for the analysis we did, one waste package,
9 clearly if a facility design was more than one
10 package, it becomes more difficult to show compliance
11 with the requirements.

12 In terms of exposure, there were certain
13 aspects of the waste. The activated metals from
14 commercial reactors are primarily stainless steel.
15 Stainless steel corrodes very slowly, so the
16 degradation rate of that material is low. We did
17 account for aspects related to the waste floor, and
18 then we did other assumptions that were consistent
19 with the analysis that was done in the early 1980s for
20 Part 61 in terms of the pathways, in other words,
21 whether you look at a inhalation pathway, other
22 pathways that would have crop ingestion, et cetera.

23 Next slide. In terms of what hazards did
24 we look at, we looked at, first, operational hazards.
25 Regardless of how you dispose of it, you do have to

1 receive the waste at the facility. It's handled and
2 placed in a disposal unit. The operational hazards,
3 there were a couple.

4 One, remote handled packages. Clearly if
5 you get very close to a package that is emitting a
6 fair amount of radiation, direct radiation, for the
7 workers, because they can get close to the packages,
8 there's the hazard for remote handled waste. And so
9 that's considered for worker protection.

10 However, there is the consideration for
11 accidents. A fire could happen that could release
12 radionuclides into the air, and that could travel
13 significantly beyond the facility, and could impact
14 off-site individuals.

15 Then there's the off-site releases that
16 are considered after a facility is closed and the
17 material has been disposed of. At some point in time,
18 packages will leak, and a little bit of waste comes
19 out into the groundwater potentially, travels to
20 places where it could be intercepted by a well. Those
21 off-site releases are looked at to determine what the
22 potential doses are to receptors outside the facility.

23 And then the intruder exposure, I
24 mentioned a little bit, and two primary scenarios were
25 looked at. One is an excavation scenario, where

1 someone would excavate for the basement of their house
2 and dig for a foundation and possibly interact with
3 the waste. The other is a drilling scenario which
4 could go much deeper. Obviously the -- in Part 61 is
5 considered, the excavation of a house would not go
6 deeper than five meters, and so -- but waste could be
7 deeper than that, and the drilling scenario, if
8 someone was potentially drilling a well for water,
9 would go down deeper to a water table and could
10 intercept some of the waste. So there are two
11 scenarios considered for the intruder.

12 Next slide. What did we find out? As I
13 said initially, most of the GTCC waste is potentially
14 suitable for near-surface disposal, potentially
15 suitable. It does require a specific analysis of the
16 site and the inventory. Obviously the more waste you
17 get in a particular site, the harder it is to show
18 compliance. Depending on the characteristics of your
19 site, the disposal facility design all come into play
20 to determining whether the requirements can be met for
21 safe disposal.

22 GTCC waste containing transuranic
23 radionuclides -- and as I had that previous bar chart,
24 you could see the spread. There was some significant
25 variation with respect to the concentration of

1 transuranic radionuclides. They present challenges.

2 First, from the operational standpoint, if
3 you have fire and you release plutonium, there's a
4 potential for significant dose consequence that needs
5 to be evaluated and considered, possibly separate
6 requirements for how it's handled and where operations
7 can be improved to prevent such type of accidents.

8 Consideration of fissile material during
9 operations. NRC has very specific requirements with
10 respect to some of this. You could have an
11 unintentional criticality. How much of this do you
12 allow on the surface of the earth in terms of at a
13 particular site, and there are requirements in NRC
14 regulations that limit how much fissile material can
15 be on the surface for handling.

16 Second, as I mentioned, the intruder
17 excavation scenario. Essentially all the GTCC waste
18 streams were too hazardous to allow an excavation
19 scenario, so as you saw in the reg basis, we said the
20 review requirement, it would need to be deeper than
21 five meters, that limit of where someone actually
22 would excavate for a home and have that. So that
23 scenario would be removed, having it deep enough. We
24 also suggested a requirement that there be a 500-year
25 intruder barrier, in addition to that depth of burial.

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1 VOICE: What kind of barrier?

2 MR. MCCARTIN: Well, it could be -- that
3 would be up for the facility to design, but if you
4 put, say, a thick concrete with reinforcing members,
5 so that drilling through into the package would be
6 very difficult, would be a type of intruder barrier.
7 It would have to be evaluated with respect to the
8 drilling practices in the area and those kinds of
9 things, but it would be something that would be
10 sustainable and would not degrade over a 500-year
11 period.

12 And then the intruder drilling scenario,
13 eventually you can drill -- it's a 500-year intruder
14 barrier. It's not forever. You could drill through
15 a particular package, and that's one of the ones that
16 for transuranic waste, primarily the plutonium and
17 Americium, that can present a problem. And once
18 again, it would need to be evaluated. And that's
19 sort of the -- our perspective on how we describe the
20 results.

21 I would like to say, you know, we at the
22 NRC, the technical staff, we don't view ourselves as
23 this great oracle that knows all and sees all. Part
24 of the reason for a public meeting is to understand
25 other concerns. Maybe there's concerns there that we

1 haven't captured. Maybe there's different ways of
2 looking at this waste that would be helpful. And so
3 that's part of why this is our perspective, based on
4 the inventories we saw, and we think it's potentially
5 suitable.

6 But I do want to stress, it would need to
7 be evaluated. Any application will have to describe
8 the site conditions, the inventory, the facility
9 design and how those -- that behavior and disposal
10 facility characteristics would ensure that public
11 health and safety are protected. And with that, I
12 will --

13 MS. GOSLEE: May I ask one question? Can
14 you tell me a site specific --

15 MR. CAMERON: Let me --

16 MS. GOSLEE: I just have a question.

17 MR. CAMERON: You know, what we're going
18 to do is we're going to clear up some of the questions
19 first before we go to comment. And I just have to get
20 you on the record for our court reporter, so please
21 introduce yourself.

22 MS. GOSLEE: Sure. I'm Susybelle Goslee.
23 And where site-specific can you show us that concrete
24 has lasted for 500 years without degrading over that
25 period of time?

1 MR. McCARTIN: Well, I was giving that as
2 an example, but there are Roman concretes that have
3 lasted very, very long time. It would be up to the
4 applicant to show how they have an intruder barrier
5 that would persist that. Now, be aware, you're
6 already five meters below ground, so this would be a
7 barrier that's below ground. It's not on the surface
8 of the earth, so -- but, yes.

9 MS. GOSLEE: That creates different
10 conditions, those barriers.

11 MR. McCARTIN: Right. It would have to be
12 evaluated and -- you know --

13 MR. CAMERON: Thank you. Other questions
14 for -- and thank you, Susy. Other questions for
15 Cardelia and Tim? Other people?

16 MR. McCARTIN: Well, Cardelia has a couple
17 slides. This is sort of the end of the technical
18 presentation, but --

19 MR. CAMERON: Oh, there's some more
20 slides?

21 MR. McCARTIN: How to submit comments.

22 MR. CAMERON: Okay. Well, we'll get to
23 you.

24 MR. McCARTIN: But I can answer your
25 question, but --

1 MR. CAMERON: Thank you, Tim. Cardelia
2 will finish it up for us, very important about where
3 you submit comments. We'll get to everybody.

4 VOICE: Chip, would you just announce
5 Jim's last name again. I didn't catch.

6 MR. CAMERON: McCartin, M-C, capital C-A-
7 R-T-I-N.

8 We'll go to Cardelia, and then we'll
9 figure this battery thing out. Thank you.

10 MS. MAUPIN: Okay. If I could get your
11 attention, we can go to slide number 15, please. Next
12 slide, please. Okay. As we said from the beginning,
13 nuclear regulation is the public's business, and so we
14 want to do our business. NRC does its business with
15 transparency, participation as we're doing today, and
16 collaboration.

17 And so what I have for you is these are
18 how you're going to get -- you can get additional
19 information regarding this topic, and also how you can
20 contact the various people, myself, Tim McCartin, and
21 our other colleague, Gary Comfort, in terms of
22 additional information or clarifying questions.

23 Next slide, please. Slide number 16,
24 please. Okay. Great. This provides how you can
25 provide your comments. We're here today to clarify

1 some of your questions, but we encourage you to
2 present, to provide your comments in writing, and we
3 provided in the Federal Register notice a number of
4 ways in which you can submit those comments.

5 By submitting your comments in writing, we
6 can -- we are clear on the comments you're making, and
7 it's on the record. It's on the docket for this
8 activity, so we strongly encourage you to submit your
9 comments in writing.

10 Next slide, please. And when you submit
11 your comments, make sure that you include this docket
12 number on all of your correspondence, and once again,
13 the comment period ends on September 20.

14 So now we'll open it back up, Chip, to
15 comments and questions.

16 MR. CAMERON: Okay. Thank you, Tim.
17 Thank you, Cardelia. And before we go to comments,
18 let's clear up some questions that you might have.
19 And when we go to the phones for their comments, they
20 can ask their questions, too. We're going to try to
21 deal with the audience first, and if you could please
22 introduce yourself.

23 MS. MLOTOK: I'm Marion Mlotok. And my
24 question is about drilling practices. So what
25 drilling practices are now might not be what drilling

1 practices are in 500 years. I give fracking as an
2 example. It wasn't a drilling practice 50 years ago.
3 So that's my question. How can you possibly be
4 predicting that 500 years ahead?

5 MR. McCARTIN: Well, we aren't trying to
6 predict what the future brings, but one would look at
7 the drilling practices, and there's possibly some
8 understanding of things may change, but it's hard to,
9 you know -- I mean, I recognize with 500 years, it is
10 hard to understand what would be out there from a
11 drilling standpoint.

12 The other aspect, too, is what might be
13 out there to understand what's below ground before you
14 drill, and you might have advanced techniques for, oh,
15 gee, there's something down there. And so once you
16 start getting into trying to estimate the future, it
17 gets very difficult what to do, but --

18 MR. CAMERON: And I just note that the NRC
19 staff will be here after the meeting, if you want to
20 follow up on some of this. So are there other
21 questions? Yes, sir. Let's go back here. And just
22 introduce yourself.

23 MR. BRADEN: Certainly. Thank you. My
24 name is Al Braden. I'm a citizen of Austin concerned
25 with this. I've got some prepared remarks, but I'm

1 just staggered by the concept that you guys are
2 talking about 500 years. I mean, this stuff has half-
3 lifetimes of tens of thousands of years. It has
4 reactions that create daughter products that can go on
5 for a heck of a long time.

6 And the idea that you're modeling that
7 some poor settler might come and dig a foundation in
8 only 500 years is just astonishing. I'd want to see
9 information on the total expected lifetime of these
10 transuranic elements and the half-life and the decay
11 of the additional products that they create. We're
12 talking about 50-, 100,000, I mean, years that this
13 stuff's going to be radioactive. So I'd want to see
14 more information about that.

15 MR. CAMERON: Can we help this gentleman
16 with his concern?

17 MR. McCARTIN: Well, one, the 500-year
18 intruder barrier, I did not mean to imply we weren't
19 looking beyond that. The analysis would need to look
20 at the long-term effects, but you're not assuming that
21 intruder barrier is intact after 500 years. And so
22 that's, you know -- that was just for the long -- you
23 can't try to propose, let's say, a 10,000-year
24 intruder barrier. That 500 years is a minimum that
25 you have to show this.

1 But then, you're right. After 500 -- but
2 the analysis continues. I don't know if that -- is
3 that what you were getting --

4 MR. CAMERON: Tim, do you recognize what
5 the gentleman's concern is?

6 MR. BRADEN: Tens or a hundred thousand
7 years is what's required. I just --

8 MR. CAMERON: And you're going to have a
9 chance with others to make your comments, but this
10 is --

11 MR. McCARTIN: But if you met the
12 regulatory limits, say, at 500 years, generally for
13 most of these radionuclides, it would be easier to
14 meet it at 10,000 years, because a lot more has
15 decayed away. There is some in-growth, and you're
16 right on that.

17 But generally for waste disposal, it gets
18 easier with time as things decay away, from an
19 intruder's standpoint. For an intruder, they're going
20 directly into the waste. It will be harder to show
21 compliance at 500 years than, say, at 5,000 years.

22 MR. BRADEN: I'm just thinking that needs
23 to be a design criteria, that the barrier approximates
24 the expected lifetime of the highly radioactive
25 material.

1 MR. CAMERON: And that was, I think, very
2 concisely stated, and we'll get to you in a few
3 minutes with comments. So anybody -- yes, ma'am.

4 MS. BARKER: I'm Martha Barker. I'm a
5 resident of Kyle, Texas, just south of Austin. And I
6 don't hear any mention of anything to do in the models
7 or the projections about earthquakes. I'm thinking
8 specifically about the Texas site where, we know,
9 there's been lots of fracking and more earthquakes
10 than there have been in the past. That wasn't
11 mentioned in your studies. Are you doing projections
12 about earthquakes?

13 MR. MCCARTIN: Well, the current
14 regulations at 10 CFR Part 61 do have requirements for
15 staying away from high seismic areas, things of
16 that -- it would be considered in the analysis. When
17 I said, site-specific, I didn't go into all the
18 different things, but you have floods; you have
19 erosion; you have seismic activity in some parts of
20 the country; volcanic activity.

21 All those things have to be considered.
22 Generally, you are trying to steer clear of high
23 seismic areas, high erosion areas, flooding, et
24 cetera. It would be evaluated, though. But that's in
25 10 CFR Part 61 already. It's not anything that we

1 would do differently.

2 MR. CAMERON: Okay. So earthquakes,
3 potential earthquakes would be evaluated. And let
4 me -- we'll be right up to you, sir. Let me go in the
5 back and get another question back here.

6 MR. BURNAM: Sure thing. I'm Lon Burnam.
7 I'm from Fort Worth. And my question is about your
8 comments in the opening part. I didn't actually hear
9 the news story on KUT during the day. Would you more
10 precisely describe what you think they were saying,
11 because I can't imagine anybody here in Texas not
12 thinking that this public meeting is about we have
13 been targeted to receive this waste, and that's the
14 reason this hearing is here in Austin.

15 There have been occasions when you should
16 have had hearings here in Austin that you didn't. I
17 had to go to Phoenix, Arizona, to participate. But
18 would you please explain why and what you meant in
19 trying to circumscribe what we're going to be talking
20 about tonight.

21 MR. CAMERON: And could we do that -- I
22 guess I started us off by talking about the public
23 service announcement on KUT that besides GTCC waste,
24 they mentioned the consolidated interim storage
25 facility in Andrews, Texas, so --

1 VOICE: The proposed.

2 MR. CAMERON: Yes, proposed. But your
3 question, I think, is very relevant for the staff to
4 answer. Can you say anything about why we're in
5 Austin, the potential for Waste Control Specialists to
6 take perhaps GTCC. Okay. We're not talking about
7 spent fuel. And Cardelia already mentioned the fact
8 that we did get a letter -- or the NRC -- I shouldn't
9 say, we. But go ahead, Cardelia. You know what --

10 MS. MAUPIN: Well, thank you for that
11 question. As you -- as I mentioned earlier, we got
12 the question from the State of Texas to a letter to
13 the Commission to ask for clarification on the
14 authority. So that was just a question, whether or
15 not the agreement state had the authority.

16 So then the staff did -- you know, we
17 submit -- analyzed the issue and submitted that to the
18 Commission. Well, the Commission, as a part of its
19 direction, asked us to do public outreach, like we are
20 doing today. And if you look at that SRM, which is
21 public, SRM- -- what is it? -- 15-0094, the Commission
22 said, well, since Texas asked the question, I guess
23 they thought it was only feasible to raise the
24 question with -- you know, with Texas community,
25 public outreach, so that's why we're here today,

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1 because the Commission directed us to look at that
2 question, and also to have public outreach
3 specifically, and that SRM directed us to have public
4 outreach within the state of Texas.

5 MR. CAMERON: And, Cardelia, maybe another
6 way to provide information is you -- on one of your
7 slides, you had where there were low-level waste
8 disposal sites, Class A, B, and C. Any of those, I
9 suppose, could be a site for disposal of GTCC,
10 assuming you've solved the agreement, whatever.

11 I mean, how does that fit in? I think the
12 gentleman is concerned about Waste Control
13 Specialists' facility and this type of material. Can
14 you say anything about that?

15 MS. MAUPIN: The only thing I can say is
16 that, one, we were directed to do this by the
17 Commission. Okay. Secondly, this is not something
18 that is hidden, but DOE did an environmental
19 assessment for Waste Control Specialists that was also
20 issued in October of 2018, specifically for WCS to
21 receive this type of waste. That's public knowledge,
22 public record. So I'm just giving you the facts as
23 they exist.

24 MR. CAMERON: And can you just tell him
25 that -- we think it's a great point that you mention

1 the DOE document, but there were more sites that WCS
2 has. Right?

3 MS. MAUPIN: Well, when they did the
4 environmental impact statement, they did it for
5 several sites. But they only did environmental
6 assessment for WCS which was issued approximately on
7 October 23, 2018. You can go to DOE's website, and
8 you can find these documents. They're publicly
9 available. DOE environmental assessment, specifically
10 for WCS,

11 MR. CAMERON: Okay. Thank you for that
12 question. And, yes, sir.

13 MR. SINGLETON: My name is Robert
14 Singleton. And I want to try to put this question in
15 as nonpolitical terms as possible. But it was my
16 understanding that it's the policy of the current
17 administration that for every new rule, two have to be
18 stricken from the books. Any idea what two rules are
19 going to go by the wayside if this rule is instituted?

20 MR. CAMERON: Maybe Andy Pessin from our
21 Office of General Counsel can answer that for you.
22 Andy.

23 MR. PESSIN: That's a good point. We
24 would have to comply with that executive order. I
25 don't believe we've identified any two particular

1 regulations, but certainly if we go forward with
2 rulemaking, that would be part of the process. But we
3 have identified anything specifically.

4 MR. CAMERON: And keep in mind what Tim
5 talked about and perhaps Cardelia, is that there's a
6 number of alternatives besides rulemaking for
7 addressing this issue. Is that correct?

8 MR. PESSIN: Correct. Right. There could
9 be the status quo or just guidance only.

10 MR. CAMERON: Okay. Thank you for that.
11 Let's go back to this gentleman. And then we're going
12 to take one more question, and then we'll go to
13 comments, and then we're going to try to go to the
14 phones. Yes, sir.

15 MR. SHELLEY: Thank you. Adrian Shelley
16 with Public Citizen. And my question is about in the
17 Federal Register notice of this rulemaking or this
18 draft mentions an obligation to evaluate the
19 cumulative effect of regulations and mentions
20 specifically other regulatory actions by the NRC,
21 including license amendment requests. So I'm
22 wondering specifically if the Waste Control
23 Specialists' application for high-level storage is one
24 of the other license amendment requests that's being
25 considered as part of that cumulative effect of

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1 regulation requirement.

2 MR. CAMERON: Okay. Thank you.

3 MS. MAUPIN: I worked on the -- can you
4 hear me?

5 MR. SHELLEY: Yes.

6 MS. MAUPIN: Okay. I worked -- I was a
7 part of the working group that came up with cumulative
8 effects of regulation, and what happened was that
9 post-9/11, NRC was doing a number of -- was changing
10 a number of requirements.

11 And then our licensees and other entities,
12 like the agreement states, say, hey, this is just too
13 much, you know, at one time and trying to implement
14 all these various requirements. Normally we've seen
15 in the past that it would take agreement states almost
16 approximately three years or more to put requirements
17 on the books.

18 So we were directed by the Commission to
19 say, hey, when you are pre-rule, which we are here,
20 pre-rulemaking, before you even do that rule, we want
21 you to go out, and we want to talk -- we want you to
22 talk to our stakeholders. We want their input on how
23 this could potentially affect them. So that's why we
24 are here at this pre- -- we're at the pre-rulemaking
25 stage, asking for your input.

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1 Now, if in your input, which I've asked
2 you to put in writing, you want to bring up, hey, you
3 got this other issue going on, potentially going on in
4 our state; this could do this; this could have this
5 impact. So that is what we are looking for from you
6 and our other stakeholders, because like we said, we
7 don't have all the information within the confines of
8 the NRC. We don't have the far-reaching impact that
9 you might have. So that's why we create a win-win
10 situation by having your input into our processes.

11 MR. CAMERON: I think the answer would be,
12 yes. Okay. If you look at cumulative impacts -- and,
13 Andy, correct me if I'm wrong --

14 MR. PESSIN: Right.

15 MR. CAMERON: But cumulative impacts would
16 look at impacts from any facility that was --

17 MR. PESSIN: Well, if you're talking about
18 cumulative impacts or cumulative effects of
19 regulation, you're generally looking at the regulated
20 community, so you're looking at one regulation or one
21 regulatory requirement being added on to another one
22 possibly, multiple regulatory requirements by the NRC,
23 requirements by other federal agencies. That's what
24 they're looking at. So I don't know.

25 You mentioned license amendment requests.

1 I would want to go back and look at the Federal
2 Register notice, because the next time we're going to
3 leave that out, because that's -- that would be a
4 site-specific application.

5 We're talking -- cumulative effects of
6 regulation are really looking at the impact on the
7 industry and looking at, you know -- it gets very
8 expensive for any individual regulated entity to keep
9 up with multiple regulatory requirements, particularly
10 if they're changing. And so I think that's really
11 what cumulative effects of regulation has targeted.

12 MR. CAMERON: So it's not cumulative
13 effects as in the EIS sense.

14 MR. PESSIN: Correct. Right. That's a
15 different type.

16 MR. SHELLEY: Right. But, I mean, the
17 question --

18 VOICE: Right. I mean, the question
19 applies equally well. Will they be able, for example,
20 to comply with all the, you know, Part 61
21 requirements, given both GTCC and high-level storage
22 and low-level storage.

23 MR. PESSIN: Oh, yes. In that sense, yes.
24 Yes, sure. Any potential applicant would have to look
25 at both what we're considering here -- again, this is

1 pre-rulemaking -- as well as any other existing
2 requirements or any other proposed requirements. So,
3 yes. In that sense, yes.

4 MR. CAMERON: Okay. Let's go to Susy and
5 Karen, and we're going to comments, and Karen is going
6 to lead us off there with comments. Okay. Susy, do
7 you have a question?

8 MS. GOSLEE: I do. I would like a
9 definition of a term I think that I heard someone say,
10 and it was an executive order. You have to comply
11 with an executive order. Who is that executive, and
12 how would that order be determined? Be very specific,
13 please.

14 MR. PESSIN: Well, an executive order
15 actually is not a law. It's not a law or regulation.
16 It does not have the force and effect of law. What
17 essentially an executive order is, it's a direction
18 from your boss, so the president is the chief
19 executive, and so when an executive order is issued,
20 federal agencies are expected to comply with the --
21 with that executive order.

22 Now, again, it's not a law, so somebody
23 can't bring a lawsuit based upon whether an agency
24 complies with the executive order or not, and if an
25 agency fails to comply with an executive order, that's

1 really between the president or the Office of
2 Management and Budget and that agency. Again, it's
3 not something that generally ends up in court. But --

4 MS. GOSLEE: So anything is possible, is
5 what I hear you saying.

6 MR. PESSIN: Well, the executive -- if
7 you're saying, there's an executive order; how do you
8 comply with it, an agency would read the executive
9 order, and it would make -- it would make its
10 interpretation.

11 Now, are you asking about the executive
12 order where the gentleman earlier said, where if you
13 issue one regulation, you've got to -- we've got to
14 take back two?

15 MS. GOSLEE: Well, I was -- no. I'm
16 really talking about your term, executive order. And
17 I assumed that it was the president. So when you say,
18 the president could make an executive order and you
19 have to comply, then the -- potentially you could have
20 anything be in that executive order.

21 MR. PESSIN: Well, I mean, an executive
22 order is not issued, interpreted or followed in a
23 total vacuum. You have other applicable laws and
24 regulations, and so certainly --

25 MS. GOSLEE: Really? You really

1 believe --

2 MR. CAMERON: Well, you know what. I
3 think we're getting on thin ice.

4 MS. GOSLEE: Yes. So -- okay. That's
5 really --

6 MR. CAMERON: We know what's possible, so
7 talk further with Andy after the meeting. And, Karen,
8 something?

9 MS. HADDEN: Yes. I have a question. It
10 seems highly unusual that at a public meeting where
11 comment is taken and there is a transcript being
12 taken, that our comments cannot be given formal
13 comment weight.

14 And I would like to ask that you
15 reconsider that decision and take our comments tonight
16 as part of formal comments. I'm sure some of us would
17 also follow up with written comments as well, but I
18 think that the things that are said here tonight
19 matter, and the way that they're said matters, and I
20 would like you to consider accepting this as formal
21 comment.

22 MR. CAMERON: Okay. Thank you. And that
23 was going to be in your comments, and I think our
24 division director is shaking her head affirmatively,
25 that that will not necessarily happen, but the NRC's

1 going to take that comment seriously.

2 And, Karen, would you come up to make your
3 comment. Are you okay? Do you have a question?

4 VOICE: Well, I was going to respond to
5 the executive order. It sounds like if the president
6 says, Drop a nuclear bomb in the middle of this
7 hurricane, that you will do it.

8 MR. CAMERON: Did he do that?

9 (General conversation.)

10 MR. CAMERON: Karen, if you don't mind
11 coming up here, and we're going to turn the podium to
12 face the NRC, but you can also look out in the
13 audience, too. So we're setting a five-minute
14 guideline. I know you're probably going to be less
15 than that, but you go ahead.

16 MS. HADDEN: Good evening. My name is
17 Karen Hadden. Can you hear me?

18 VOICE: The microphone's dead.

19 MS. HADDEN: Hello, hello.

20 MR. CAMERON: Oh, here you've got to --
21 here, let me help you.

22 MS. HADDEN: Is there a button?

23 MR. CAMERON: Yes, there is. But it's
24 hard to see. It's not obvious. It's this one right
25 here.

1 MS. HADDEN: Good evening. My name is
2 Karen Hadden. I'm the executive director of the SEED
3 Coalition, Sustainable Energy and Economic Development
4 Coalition. I heard a comment just a little while ago
5 about these things are not in a vacuum. That's right.

6 There are cumulative impacts when you do
7 various different waste streams at a site, and that is
8 why I think it's important. I know that we heard
9 discussion tonight about the radio saying that there's
10 also high-level waste being considered.

11 Well, yes, there is. And that needs to be
12 considered side by side. These issues are both
13 viable. This is an additional waste stream, and the
14 two -- and the facilities are very, very close to each
15 other at the WCS site. So I don't -- I think that's
16 an artificial limitation, to say that that's an issue.
17 We must be able to consider those together, and the
18 analysis that gets done must consider these things
19 together.

20 I'd like to start by saying that this
21 rulemaking is a bad idea. It doesn't need to happen.
22 It's not accomplishing the right goals, and it's
23 creating additional risks. It should not move
24 forward. And the existing laws have said basically
25 that this stuff belongs deep underground. It does not

1 belong in shallow burial.

2 My gut understanding of what's going on
3 here is to say it's like waving a wand over this
4 incredibly dangerous radioactive waste. This stuff is
5 hot, and saying, Oh, but, you know, it's not that bad
6 after all, and we can just go ahead and put it in
7 shallow burial. There are endless reasons not to do
8 it, and we just heard some of them.

9 Potential criticality? Yes, that would be
10 among our concerns. Yes, that would be a problem.
11 And, you know, it wouldn't be the first time, because
12 it has happened. It happened in Russia. Different
13 circumstances, different arrangement of materials, et
14 cetera, et cetera, but there was an explosion. Waste
15 went all over a whole region. These things happen.

16 Contamination of water -- there was
17 basically an admission tonight that that could happen.
18 Well, yes, that's a problem. That is really a
19 problem. And contamination of air, soil, and water.
20 We don't need this. This is not the right way to deal
21 with the waste.

22 And when you go to the environmental
23 impact statement done by the Department of Energy --
24 in 2016, it was published, January 2016. And it was
25 discussed earlier. "Greater-than-Class C low-level

1 radioactive waste is waste that is not generally
2 acceptable for near-surface disposal" -- yay -- "and
3 for which the waste form and disposal methods must be
4 different and in general more stringent than those
5 specified for Class C."

6 Well, that's pretty solid right there. It
7 says what we ought to do and not do. This stuff
8 belongs deep underground. We heard tonight about the
9 potential for this waste to get into waterways and to
10 volatilize.

11 There was, as was mentioned, the only site
12 out of all of those in the environmental impact
13 statement that got further analysis was WCS, and they
14 did an environmental assessment and referenced the
15 environmental impact statement and adopted it, which
16 tells me that there's an attempt here to skirt the
17 full NEPA process of an environmental impact statement
18 specifically for this waste at this site. And that is
19 a problem.

20 I read this environmental assessment.
21 It's only 44 pages long, and it is based largely on
22 the original license application for the compact
23 facility and federal waste facility at WCS. This was
24 years ago, and it did not contemplate greater-than-
25 Class C waste or the potential high-level waste at the

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1 site, so it is outdated. It is inadequate. It is
2 wrong. It should not move forward.

3 In this document, you will find that there
4 is discussion of volatilization of the radionuclides
5 that would be buried. Okay. So it was started 120
6 feet deep, and this document says they could stack
7 them seven deep with some sand in between. That would
8 bring it up pretty darn close to the surface. In
9 another place it says, oh, maybe you should put the
10 really hot stuff way low, because then it's not as
11 close to the surface.

12 This is a problem, because then it goes on
13 to say that some of the radionuclides volatilize.
14 They can come out from containers, work their way up
15 through the soil -- I'll wrap up as soon as I can
16 here -- and then volatilize into the air and spread
17 through soil, air and water. That is a problem. We
18 do not need contamination in our state. We do not
19 need contamination in the many, many transport trips
20 that could happen by truck or rail.

21 There -- this stuff just belongs much,
22 much deeper, and I think that this is being done as a
23 matter of money, because when you look at the draft
24 regulatory basis, there's a whole section of comparing
25 costs, and also there's not adequate consideration

1 being given to sites that exist that could take this
2 waste right now for deep isolation.

3 And so I'll wrap up by saying, we don't
4 want it. We don't want the rulemaking, and we don't
5 want the waste. Texas has enough already, and this is
6 risk that we do not need to take. It risks our
7 health, our safety, our environment, and the financial
8 health of our state.

9 MR. CAMERON: Thank you. Thank you very
10 much, Karen.

11 Martha, Martha Barker from Kyle, Texas.

12 MS. BARKER: So I'm Martha Barker from
13 Kyle, Texas. I'm a relatively new resident. I moved
14 from Maryland, neighbor to the Commission there in
15 Rockville, and so I'm learning about what's happening
16 in Texas in terms of the environment.

17 What concerns me the most about this is
18 that it sounds as though the impact study that's been
19 done is only relating to this site, but the site is
20 part of a web, and the web includes how that material
21 gets to the place. It presumably has to come on some
22 conveyance, so it's effect -- it's going through
23 towns; it's going through cities; it's going on trains
24 or by rail, by road.

25 So my concern is that it doesn't seem that

1 the impact is addressing a wide enough impact crater,
2 if you will. The other thing -- and I'm not a
3 geologist, but as I look at the rock formations in
4 this area -- and I believe it extends -- somebody
5 might be able to help me with this, but I heard
6 somebody explain it that putting toxic waste into the
7 karst in this area is like pouring it into Swiss
8 cheese.

9 I see these formations in the lovely
10 landscaping in my community. There are holes. There
11 are little bitty holes. You can see right through
12 them. The kids like to look through them. But we're
13 talking about putting nuclear waste in that sort of
14 rock formation.

15 And as I said earlier, the concern about
16 earthquakes, I'm not sure how we can, at this stage,
17 predict the seismic activity for 500 years. We
18 already see that in this area, there has been more
19 seismic activity than previously, due to fracking. So
20 those are my concerns. Thank you.

21 MR. CAMERON: Thank you. Thank you very
22 much. And that was Martha Barker. Okay.

23 And, Marcus, are you still with us?

24 MARCUS: Yes, sir, I am.

25 MR. CAMERON: Okay. We're going to go to

1 some more people here in the room, and then we're
2 going to go to the phones. But I just wanted to make
3 sure we still had you on board. That's the operator.

4 Robert, Robert Singleton. This is Robert.

5 MR. SINGLETON: My name is Robert
6 Singleton, and if you have any doubt on which category
7 to put me in, put me down as a no. As a matter of
8 fact, you can create a separate category for, Oh, God,
9 please no. That's the category I will be in.

10 I've been thinking about trash bags today,
11 and this will become germane. You know those flexible
12 trash bags, where you can cram more and more stuff
13 into them? Well, that's a lot like the NRC license,
14 the license for WCS. Every time we think we know what
15 the license limits are, they've got another proposal
16 to add something else to it, high-level nuclear waste,
17 GTCC waste.

18 And by the way, thank you, Cardelia, for
19 talking to us about acronyms. I sometimes feel like
20 we're spelling things out around the children when we
21 use that many acronyms.

22 But there are more curies than this, and
23 here's some facts about that. There are more curies
24 in this proposal than were previously allowed.
25 There's only -- the license only allows for 5.6

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1 million curies, but the GTCC waste would be about 160
2 million curies, more than 28 times the licensed amount
3 for a federal waste facility.

4 There's a word for what's happened with
5 the WCS license. It's call mission creep, and I think
6 that's a term that's primarily applied to our military
7 excursions, but it also applies to this. Once the
8 camel has got its nose in the tent, once it gets this
9 many additions, corrections, amendments, and extra
10 facets for the license, it's no longer the same thing
11 it used to be. It's no longer a camel; it's some sort
12 of frightening mutant camel.

13 I guess my main concern here is I'm really
14 worried about the fact that this was initially sold to
15 us, the WCS license was sold to us as a very limited
16 amount of innocuous-sounding things. But there is no
17 doubt in my mind now that we're way beyond gloves and
18 booties, which is what the original proposal to us
19 characterized the waste as. And I no longer recognize
20 this camel.

21 MR. CAMERON: Okay. Thank you. Thank you
22 very much, Robert.

23 Lon, Lon Burnam, right back here.

24 MR. BURNAM: Good evening, members of the
25 NRC staff, and Chip, thank you. I'm Lon Burnam. I

1 live in Fort Worth, and Chip knows this is not my
2 first picnic. Ironically, Friday morning I was
3 visiting with a reporter of the Star Telegram, and I
4 asked her, just how long ago did you cover that
5 demonstration; was that 30 years ago about, over below
6 regulatory concern. And she said, is that applicant
7 still -- basically she said, Is that coming back
8 around.

9 Well, those of you that were part of that
10 Orwellian project will remember it took a whole lot
11 of effort on a whole lot of public people to address
12 that concern. So let me get to my prepared comments,
13 Chip. I'm really concerned, because most of it's
14 about WCS, so when you were trying to constrain me, I
15 was really concerned.

16 So for those of you that don't me, for 18
17 years, I represented Fort Worth in the Texas House of
18 Representatives, from 1997 to 2015. Currently I'm the
19 Lone Star Chapter Sierra Club nuclear issues chair and
20 coordinator, and I also served for the last 18 months
21 on the national Sierra Club radioactive waste working
22 group.

23 Tonight I'm representing myself, but for
24 the last 18 months I've spent at least an hour a week
25 on the phone with this working group, and we keep

1 coming to the realization that there is no good
2 solution to this.

3 But I'm here to say, Texas doesn't want to
4 be the one that's dumped on. Okay? So let's have a
5 little background. In my 18 years in the legislature,
6 I learned to expect disingenuous and misleading
7 comments from representatives of the industry.

8 When the enabling legislation to establish
9 the WCS site was passed in 2003, there were explicit
10 promises that were made, they would never try to bring
11 high-level waste to this site.

12 So now it seems there's an Orwellian
13 effort to rename and reclassify this highly dangerous
14 material, just as there was 30 years ago. Am I
15 suspicious? Am I growing a little cynical in my old
16 age? Yes.

17 It was not until this year, in this
18 legislative session, when they tried once again to
19 sneak their special interest legislation through, that
20 they got caught with their hands in the cookie jar,
21 and were finally held accountable.

22 This session, their special interest
23 legislation did not even get to either the House floor
24 or the Senate floor, and they were exposed in
25 committee for the lies that they had told over the

1 years, and the author of the bill went back and looked
2 at the tape, and he said, Oh, you're right; they lied.

3 When they tried the deceptive measure of
4 adding part of their legislation to an unrelated bill,
5 the governor not only vetoed the bill. He tweeted, We
6 don't want this high-level stuff here in Texas. Texas
7 has fulfilled our responsibility with the low-level
8 compact. We're one of four. You showed the map.
9 What about the rest of the states that have not
10 fulfilled their responsibility at all?

11 What's wrong with this Orwellian industry-
12 driven attempt to dump on Texas? One, it represents
13 the most egregious form of corporate socialism. It is
14 designed to let the rich make greater profits at the
15 expense of the public good, specifically that public
16 being Texas and Texans. The proposal would allow 28
17 times more curies than are currently allowed. It
18 would involve 100,000-pound containers stacked in
19 hollow pits.

20 Three, it would involve over 33,000 truck
21 shipments, if they're trucked, or if they're railed,
22 regardless, that would -- most of it would be coming
23 through the Dallas-Fort Worth area. Let me tell you.
24 I learned a lot about railroads in my 18 years
25 representing central city Fort Worth. This is an

1 extraordinarily bad idea.

2 Until the great tariff battle with China,
3 over half of what's imported in this country came
4 through one traffic light on the rails in the Fort
5 Worth from the Los Angeles port. Of course, now
6 they're sending those ships back, and maybe it's not
7 as big of a problem, but let's hope the tariff wars
8 don't last forever.

9 There are no proposed safety improvements
10 at this facility. I've read the documentation -- you
11 should, too -- about the safety violations at that
12 current facility.

13 Finally, as Governor Abbott recently wrote
14 to the NRC, "At this time, I oppose increase in the
15 amount or concentration of radioactivity authorized
16 for disposal at the facility in Andrews County." I
17 don't often agree with the governor, but I agree with
18 him now. And from my perspective, somebody whose
19 family has been here since the 1820s, we got a lot of
20 carpetbaggers looking at how to dump on this state,
21 and we don't appreciate it at all. Thank you.

22 (Applause.)

23 MR. CAMERON: Thank you. Thank you, Lon.

24 Marion. And I'll let Marion pronounce her
25 last name.

1 MS. MLOTOK: Thank you.

2 MR. CAMERON: And then we're going to go
3 to Dale Bulla, Pat Bulla, and Tom "Smitty" Smith. And
4 then we're going to go to the phones, and then we'll
5 come back to the room.

6 MS. MLOTOK: My name's Marion Mlotok. And
7 I can pronounce it. I have a few main concerns about
8 this.

9 One is this whole process of
10 reclassifying. It's not a process I'm fond of. I
11 mean, the first problem I came across with this Waste
12 Control Specialists was when they were reclassifying
13 how far the Ogallala Aquifer intruded into Waste
14 Control Specialists' territory. And I still don't
15 trust that consideration.

16 We have the Ogallala Aquifer which is the
17 breadbasket of the whole midwest of this country and
18 the green-growing region, and if we're putting even
19 higher-level waste than what we were originally
20 putting, when we reclassified where the Ogallala
21 Aquifer is just by fiat, this does not really work for
22 me, and it puts our food supply in jeopardy. And it
23 also puts, of course, the water supply in jeopardy.

24 The other question I have is about
25 reclassifying radioactive waste, and if we're

1 reclassifying it for a good technical reason, I don't
2 have a problem with that, if we misclassified it in
3 the first place or we've learned more than we used to
4 know. But we're reclassifying it now because Waste
5 Control Specialists wants to have this waste so they
6 can make more money.

7 And when we go back and look at the
8 history of this, this is because when our energy
9 secretary used to be our governor, Harold Simmons, who
10 owned Waste Control Specialists before he passed away,
11 was contributing heavily to Governor Perry's
12 campaigns. And that's why we have it in Texas.

13 And for me, when I hear we're going to
14 reclassify waste so that we can put it in Waste
15 Control Specialists, when as you've heard from other
16 people, this was promised never to happen, I say we're
17 doing this for a financial reason and a financial
18 reason that is going to benefit very few people. It's
19 not going to benefit the people of Texas, because this
20 stuff is radioactive for tens of thousands years.

21 Eventually Texas will be on the hook for
22 this. Whether it's sooner or whether it's later,
23 we're going to have our health and our finances
24 drained as a result of putting high-level waste there.
25 Thank you.

1 MR. CAMERON: Okay. Thank you very much,
2 Marion.

3 MR. PESSIN: Chip. Chip --

4 MR. CAMERON: Dale --

5 MR. PESSIN: Chip, could I make a few
6 clarifying --

7 MR. CAMERON: Go ahead. Andy Pessin.

8 MR. PESSIN: Yes. Andy Pessin, attorney,
9 NRC OGC. A couple things. First of all, W -- and I
10 appreciate these comments. They're all very good
11 comments.

12 WCS is not licensed by the Nuclear
13 Regulatory Commission. It is licensed by the State of
14 Texas. Okay. So there was a comment earlier that the
15 NRC was the licensing authority for WCS, and that's
16 not accurate.

17 There's also been statements that we're
18 reclassifying GTCC waste. Under the Nuclear Waste
19 Policy Act, GTCC waste is not identified, and it is
20 not part of the definition of high-level waste. Now,
21 we certainly take the regulatory position that the
22 default disposal paths for the GTCC waste is a deep
23 geologic repository, but we never took the position
24 that it cannot go anywhere else.

25 The regulation goes all the way back to

1 the early 1980s. We take the position that on a case-
2 by-case basis, it can go to a site other than a deep
3 geologic repository. So that's not a new change.
4 That has been the case since the 1980s. So those are
5 the two clarifying comments.

6 Oh, one other clarifying comment. All
7 we're doing here is we're looking -- we're considering
8 whether to go forward with rulemaking or not, and
9 rulemaking is generic. We're not -- this is -- and I
10 understand WCS is implicated here, and they probably
11 are the likely candidate. But our rulemaking is not
12 WCS-specific. If we do have a rulemaking that allows
13 for near-surface disposal of GTCC waste, a number of
14 things would have to happen after that.

15 One is Texas would have to change their
16 regulations, which currently prohibit GTCC waste.
17 That would be a State of Texas action, not an NRC
18 action. And then if WCS were interested in storing
19 this material, they would have to follow up with a
20 site-specific application, and there would be a site-
21 specific safety analysis and a site-specific
22 environmental analysis, most likely an environmental
23 impact statement.

24 MR. CAMERON: Okay. Thank you. And,
25 Marion, thank you for your comments.

1 MS. MLOTOK: I'd just like to add
2 something, based on what he just said.

3 MR. CAMERON: Go ahead.

4 MS. MLOTOK: It's like, I understand what
5 you're saying. This is a generic thing.

6 MR. PESSIN: Yes.

7 MS. MLOTOK: However, it's a generic thing
8 that is, as you said, most likely to come to Waste
9 Control Specialists.

10 MR. PESSIN: Right.

11 MS. MLOTOK: And so to consider it as, oh,
12 well, this is just bureaucratic rulemaking, that's not
13 really what's exactly at stake here for us.

14 MR. CAMERON: Okay. Thank you. And,
15 Dale, Dale Bulla, and then we'll go to Pat Bulla, and
16 then we'll go to Smitty.

17 MR. BULLA: Thank you. I'm Dale Bulla.
18 I live in Austin, Texas. Listening to these
19 discussions has been kind of sobering. It seems the
20 horse is out of the barn, however. A lot of these
21 questions should have been asked decades ago. Before
22 you start building a poisonous system, you should
23 decide what you're going to do with the poison.

24 And I was thinking of comparisons between
25 our CO2 dilemma right now, with our earth warming. We

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1 talk a lot about dealing with the damage that's being
2 caused by excessive CO2 pollution, just like we're now
3 talking about the damage of excessive radiation
4 contamination, and both of these things were warned to
5 us decades and decades ago. So, I mean, we're here
6 where we are.

7 My concern also is that the taxpayers are
8 going to pick up the cost for this. If the people
9 that are generating the energy had to pay for the
10 storage, they would shut down. They couldn't afford
11 to operate these plants. We could have wind, solar
12 and storage. It could vastly change the landscape of
13 zero pollution, and I think it's a shame that we're
14 here today.

15 MR. CAMERON: Okay. Thank you, Dale. And
16 this is Pat, Pat Bulla.

17 MS. BULLA: Thank you. Yes. Pat Bulla,
18 and I live in Austin. Short, I agree with much of
19 what's been said. I am deeply opposed to the proposed
20 reclassification of radioactive waste which could
21 likely or would likely affect the West Texas site.

22 As a taxpayer, I do not want my state to
23 have the financial responsibility of potential
24 accidents of such -- much greater level of radioactive
25 waste. Please don't bring it here.

1 MR. CAMERON: Okay. Thank you, Pat. And
2 this is Tom Smith.

3 MR. SMITH: Good evening, everybody. My
4 name is Tom Smith. I'm better known as Smitty. And
5 I'm sorry I have to be here tonight.

6 As many of you know, in 1985, I started
7 getting involved in this question of what are we going
8 to do with the nation's radioactive waste. Many of
9 you in the room, several of you in the room, were in
10 that debate then, and we still haven't figured out
11 what to do about this mess.

12 And I appreciate the NRC coming down here
13 and offering to listen to us, and the work that you're
14 trying to do to figure out what to do with these
15 wastes that have already been generated. But I want
16 to say, I don't think we want this waste here, and I
17 don't think that the reclassification is a good idea,
18 because the wisdom that we had decades ago to make
19 sure this went to a repository was based on science,
20 not politics.

21 And ultimately this has become a political
22 decision, and I'm afraid that you're caught in those
23 jaws of this political decision, and you have a grave
24 moral decision to deal with this waste responsibly,
25 and sometimes that means standing up to the politics.

1 That's going to take a lot of guts and a lot of
2 courage. I hope that you have it. I think you do.

3 And I hope ultimately that you make the
4 decision not to reclassify this waste in ways that
5 would put this state at risk. Ultimately what's
6 happened here is this whole thing has gotten triggered
7 by a letter coming from TCEQ that would have
8 benefitted Governor Perry's second largest donor, and
9 they said, Take a look at WCS; they might be willing
10 to have it.

11 And as a result, I think it's important
12 for us to take a look at how politics have now changed
13 in this state. Governor Abbott has written you all
14 letters, saying, Wait a minute, we're not sure this is
15 a good idea.

16 And in a situation very close to this,
17 same side of WCS, after he vetoed a bill that would
18 have brought that waste to WCS, high-level radioactive
19 waste to WCS, he said in a tweet, "Some people want to
20 make Texas the radioactive waste dumping ground of
21 America. I won't let that happen."

22 The politics have changed on whether or
23 not Texas can be considered a waste dump for the rest
24 of the United States. We used to have a saying here,
25 Don't mess with Texas, and I think that's what this

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1 moment has become.

2 Politics have changed in a different way.
3 The oil companies have changed in a different way.
4 The oil companies have now woken to the fact that this
5 kind of waste may come to Texas, whether it be the
6 high-level stuff or this greater-than-Class C, and
7 have aroused the political tiger.

8 John Cornyn and Ted Cruz aren't going to
9 stand here and let Texas oil get impacted and lose
10 their market because of some fool's errand of trying
11 to bring this waste and dump it out at WCS. They
12 don't want to -- nobody wants radioactive oil, and
13 nobody wants this waste. That's why they're trying to
14 send it here.

15 But you're now in a position where that
16 politics have changed, and if you've got the guts to
17 stand up and say, Not in Texas and we're not going to
18 reclassify it, you're going to have political backing
19 you haven't had in several generations.

20 There's another kind of political change
21 that's happened, because this waste is going to be
22 coming through Texas to go out to WCS, either on rail
23 or by truck. Eight counties and cities in Texas have
24 passed resolutions. They represent the majority of
25 Texans who have said, We don't want this waste coming

1 through our cities and our communities, in reference
2 to the high-level stuff.

3 And, again, 41,000 people said, We don't
4 want this high-level stuff coming through. And it's
5 not the distinction matter. It's the radiation
6 exposure they understand. That's the real threat we
7 have here.

8 Now, one of the things that we expect to
9 have happen is that TCEQ is going to have to change
10 their rules and regulations, and we expect that the
11 legislature's going to get involved in this in the
12 2021 legislature. And with the oil companies,
13 together with the environmentalists and those eight
14 counties and cities, the politics have changed. And
15 I don't think you're going to be in position where you
16 can continue to dump on Texas.

17 There's another big reason. There's holes
18 in this plan of putting this stuff out in West Texas,
19 about 600 of them that have never been characterized
20 and have -- that are old uncapped oil and gas wells.
21 Now, the good folks at TCEQ said, when they were
22 looking at this the first time, We have a lot of
23 concerns about water incursion into this site and into
24 the aquifers below it, and the contamination that
25 might result.

1 Four people from the staff at -- three
2 people at the staff at TCEQ resigned over that. That
3 permit for the low-level site was issued over their
4 objections, and it's important to note. There are
5 other natural disasters that need to be looked at, and
6 they're in your report on -- where they talk about
7 hurricane -- tornadoes, rather, not hurricanes. I've
8 got that on my mind for other reasons. Two tornadoes
9 have been out there. There've been nine F1 tornadoes
10 in that particular area around Eunice.

11 There was an earthquake, a 3.3 earthquake,
12 in that particular part of the world, and yet somehow
13 we magically think that this is going to not affect
14 this waste and not cause that concrete to crack open.
15 I am fond of reading about magical thinking, but this
16 is woo-woo science at its worst, and we need to say,
17 no, we're not going to do this.

18 I think it's also important for us to take
19 a look at what our future is. I've spent my entire
20 career, as you folks have, thinking about what to do
21 with this waste. This is a legacy problem, and the
22 decision that you're going to make to put this waste
23 in a facility that you think might work, just might
24 work, for 500 years, is your legacy.

25 But unfortunately that waste's legacy will

1 outlive that 500-year cap. It's going to be hot for
2 10,000 years, for untold generations of your
3 grandchildren and their grandchildren and their great-
4 great-great-great-great, is more than my mind can
5 understand, to go out 10,000 years. That's your
6 legacy.

7 And is changing the rules the way to
8 protect your legacy? Or is doing what's right and
9 saying, This waste needs to go where science says it
10 needs to go, deep underground in a geologic formation
11 that will prevent it from getting wet and prevent it
12 from having any incursion into the atmosphere?

13 That's the charge we all have is to
14 protect our legacy and the generations that come after
15 us. Thank you very much for taking on this
16 responsibility, and I hope it doesn't rest well on
17 your would to think about what might happen if you
18 don't have the courage to act. Thank you.

19 MR. CAMERON: Thank you. Thank you,
20 Smitty.

21 We have a few more speakers that we're
22 going to get to here, but we're going to go to the
23 phones. And, Marcus, is there someone who wants to
24 talk to us on the phone?

25 (No response.)

1 MS. D'ARRIGO: My name's Diane D'Arrigo.

2 MR. CAMERON: So Marcus is gone. Who's
3 the operator?

4 MS. D'ARRIGO: Hello?

5 MR. CAMERON: Yes. Who is that?

6 MS. D'ARRIGO: This is Diane from Nuclear
7 Information.

8 MR. CAMERON: Oh, Diane. Hi, Diane. Go
9 ahead.

10 MS. D'ARRIGO: Hi. Are you getting an
11 echo, though, because I'm getting an echo.

12 MR. CAMERON: It's sort of coming through
13 garbled there.

14 MS. D'ARRIGO: Maybe I should call on a
15 different line.

16 MR. CAMERON: Yes. Why don't you try that
17 and come back to us, and let me try to locate the
18 operator, Marcus, who was -- Marcus, are you there?

19 MARCUS: Yes. I'm here.

20 MR. CAMERON: Okay. Well --

21 MS. D'ARRIGO: I'll get in on a different
22 line.

23 MR. CAMERON: When you're going to put
24 someone forward to us, just tell us that they're going
25 to be coming on. You don't have to say their name,

1 but it would be useful to know that you're putting
2 someone out there. And I think the first person you
3 put on was Diane D'Arrigo, and we want to hear from
4 her. But she was going to go try a different phone,
5 so we'll put her on right after the next speaker. But
6 who do you have in line now to talk to us?

7 MARCUS: I have no one else in the queue.

8 MR. CAMERON: Okay. Well, Diane, are you
9 on a different phone now?

10 (No response.)

11 MR. CAMERON: They're all out there on the
12 next level. Okay. We're waiting for Diane.

13 (Pause.)

14 MR. CAMERON: Okay. While we're waiting
15 for Diane and Marcus, we're going to -- as soon as
16 Diane comes back, tell us. But we're going to go to
17 some people in the room now while we're waiting for
18 Diane to get to a different phone. Okay?

19 MARCUS: Okay.

20 MR. CAMERON: Okay. Let's go to Adrian,
21 and then we'll go to Al, and then to Neva Fischer and
22 Sylvia Pope. This is Adrian.

23 MR. SHELLEY: Hi, there. Adrian Shelley
24 with Public Citizen, a resident here in Austin, Texas.
25 And I have the unenviable task of following Smitty,

1 but that's something I'm a little familiar with, so
2 just keep going.

3 So, I mean, at base -- right? -- we
4 haven't heard a good reason why this rulemaking is
5 necessary. We heard earlier that the question is,
6 should we embark on a rulemaking or not. And I think
7 the clear answer is no. There's just no reason for
8 it.

9 We've heard from a majority of the people
10 here in the room about the WCS site, and that is
11 because for us here in Texas, it's just not possible
12 to, you know, remove a generic proposed regulatory
13 action from the facility that's actually located in
14 our state and which we have followed some of us, in
15 some cases, for many decades.

16 And, you know, that facility exists on
17 sort of some shifting regulatory sands, and we have
18 seen over the years, you know, chipping away at the
19 regulations for the site, and it concerns us greatly,
20 and that is why that's how it's being framed for all
21 of us who are speaking here tonight.

22 And, again, you know, we haven't really
23 heard a reason beyond that there was a vendor at one
24 point who wanted this rulemaking. We haven't heard
25 another reason why it's necessary. You know, the Part

1 61 definitions for the classes of radioactive waste
2 are not vague. They're not open to interpretation.
3 They're very clear.

4 You've got specific radionuclides in, I
5 think it is, Part 61.55, the waste classification
6 section. And it lays out very clearly which are the
7 radionuclides and which are the curie counts, and what
8 class does that put them in. And there's really no
9 wiggle room in there. Right? And so it just doesn't
10 make sense to us for those longstanding regulations to
11 be reconsidered, and that's why most of the folks in
12 this room have framed this as a reclassification of
13 waste.

14 You know, I asked the question earlier,
15 and I've got to say in my comments, whether these are
16 formal comments are not, I've got to bring up again
17 that the regulations require this cumulative effects
18 of regulation analysis, and we heard that that is
19 essentially about the regulatory burden to industry,
20 to the regulated community. And we heard, of course,
21 that there is, you know, a cumulative impacts analysis
22 that's done as part of the NEPA process.

23 But the NEPA process considers projects in
24 isolation and looks at one project. We do an
25 analysis. We do an environmental assessment and then

1 a FONSI, and we move on. And, you know, we've heard
2 that the environmental assessment that's been done in
3 this case is relatively generic. And so we have
4 pretty serious concerns about, you know, whether any
5 meaningful cumulative impacts analysis will be done.

6 And so, you know, if it's the cumulative
7 effects of regulation, you know, burden to industry
8 that has to become the earnest sort of, you know,
9 cumulative analysis, then so be it. Right? There's
10 a very real question about whether WCS or its
11 successors in interest can maintain, you know, the
12 number, the volume of sites that are there, the volume
13 of material that it's asked for, and, you know, the
14 sort of constantly shifting asks that it makes of the
15 NRC and of the State of Texas.

16 I think there are very serious open
17 questions about whether, you know, all of those pieces
18 can be juggled all at once, and so, again, whether
19 it's a cumulative effects analysis for the impacted
20 community or the regulated industry, it's got to be
21 done. We cannot look at a generic rulemaking without
22 considering all of the other moving pieces.

23 And there is a pending application from
24 WCS to the NRC. Right? So the NRC's not a -- there's
25 not a high-level radioactive waste application pending

1 to the NRC right now? Yes. Interim Storage Partners,
2 yes. The ISP. We all call it WCS, but Interim
3 Storage Partners. Right?

4 They are a applicant before the NRC.
5 Right? So this rulemaking's got to be considered in
6 that context. And, I guess, I will just finish by
7 being yet another person to quote the governor on
8 this. The governor's tweet from June 5 -- it's been
9 said; I'm just going to say it one more time. "Some
10 people want to make Texas the radioactive waste
11 dumping ground of America. I won't let that happen."

12 A whole lot has changed in Texas in the
13 last couple of years, so we'll view it in that
14 context.

15 MR. CAMERON: Thank you. Thank you,
16 Adrian.

17 And we're going to go to Al now, and then
18 we're going back to Marcus, and hopefully Diane is on
19 the phone. But Al Bradley -- Bradley?

20 MR. BRADEN: Al Braden.

21 MR. CAMERON: Braden. I'm sorry.

22 MR. BRADEN: I have the difficult position
23 of following Adrian and Smitty, so -- thank you.

24 Good evening, Commissioners. I'm Al
25 Braden, an Austin citizen. I volunteer with Sierra

1 Club and 350 Austin, concerned with stewardship of our
2 life-giving earth. And I think I've got to give you
3 credit for one thing tonight. You've really
4 graphically summarized how I feel about this whole
5 thing.

6 (General laughter.)

7 MR. BRADEN: As I look at all the
8 shortcuts and, you know, 500-year plans and all the
9 things that I read in your slides -- and I'll go back
10 and read them in detail -- it just makes more and more
11 questions and, frankly, a little bit of despair about
12 this.

13 Fifty-five years ago, I was a high school
14 student in El Paso, and I was studying to become a
15 nuclear physicist. At that very time, the Atomic
16 Energy Commission planned, promised, a long-term
17 permanent disposal of nuclear waste, and though I
18 later studied physics and engineering, I did not, in
19 the end, become a nuclear physicist.

20 But in those 55 years, the Atomic Energy
21 Commission did not in the end find the solution to
22 long-term underground disposal of this waste. And the
23 NRC later and the DOE have failed in their obligation
24 to solve the disposal of radioactive waste that their
25 very programs create and support.

1 And even as reactors are now licensed
2 beyond their original design lives, the nuclear
3 industry is winding down. Their radioactive and toxic
4 waste remains a serious problem for the NRC and a
5 national problem.

6 I've seen the open-air storage cask in
7 Connecticut, from the closed Connecticut Yankee, off
8 in the woods, just 25 miles from downtown Hartford, a
9 city of -- a region of 1.2 million. And I wonder
10 what's going to happen to the above-ground storage
11 cask at Vermont Yankee now being closed and seven
12 miles from my kids and grandkids in Brattleboro,
13 Vermont. So I take this personally. I know that safe
14 and permanent storage is a pressing problem, and it
15 will accelerate as our nuclear fleet winds down in the
16 next 30 years.

17 You have got to find the permanent
18 storage. Relabeling something does not make it safe,
19 does not make it less radioactive, does not shorten
20 its half-life, and does not reduce the risk that it
21 poses to future generations.

22 VOICE: Amen.

23 MR. BRADEN: The solution to this
24 radioactivity is not to dump it in shallow graves on
25 the high plains of Texas. Once Waste Control

1 Specialists makes all their money accepting this
2 waste, once the site is full and some sand is poured
3 over it and maybe a 500-year piece of cement, it will
4 become the responsibility of the people of the United
5 States and the people of Texas in particular to live
6 with, remediate, and dig up at even greater cost and
7 put somewhere in the permanent storage that's
8 required.

9 Once that waste touches the soil of Texas,
10 it will not leave, and we will have created a
11 Chernobyl on the high plains that will contaminate our
12 land, our water, and our people for thousands of
13 years, and I cannot accept that. So I, please, ask
14 you, reject this application and reject the concept of
15 the rulemaking to relabel dangerous waste as something
16 less than it truly is. Thank you very much.

17 (Applause.)

18 MR. CAMERON: Thank you. Thank you, Al.

19 And, Marcus, is Diane on the phone?

20 MARCUS: She is.

21 MR. CAMERON: Go ahead, Diane.

22 MS. D'ARRIGO: Hi. I'm Diane D'Arrigo
23 with Nuclear Information and Resource Service. All
24 right.

25 Well, anyway -- (feedback from phone

1 connection) -- C and greater-than-C in some
2 concentrations, and the 10 CFR 61 regulations require
3 or assume at least a hundred years of institutional
4 control post-closure.

5 So the radionuclides that are generated,
6 which come over 95 percent in the low-level waste
7 stream in the country, is from nuclear power reactors
8 in the commercial waste stream, and this stuff goes to
9 these -- legally they can be unlined soil trenches
10 with a hundred years of institutional control and an
11 allowable release rate.

12 I got a little confused on the call on the
13 22nd of August, where there was some discussion of
14 allowing 500 milligrams per year to people from these
15 sites. It's my reading of the regulation that it's a
16 25 millirem, 25-75-25 millirem, dose is still what is
17 the limit for exposures to the public from these
18 facilities.

19 And I do understand that, depending on
20 the -- pretty much any computer models or scenarios
21 that are done that calculate doses to the public, come
22 up with an inadvertent intruder, a resident farmer
23 sitting on top of this site after the hundred years,
24 and that's the person or the family that would get the
25 highest dose.

1 And that person is supposed to be limited
2 to a set amount of exposure. Supposedly one can put
3 in all kinds of long, long-lasting radionuclides, and
4 as long as they're a bit deeper in the ditch than the
5 Class A stuff, then the farmer and his family are only
6 going to get what we now consider the legal or
7 acceptable dose.

8 Well, that's my interpretation of 10 CFR
9 61, and now -- well, we also know that in 1980, states
10 were given responsibility for so-called low-level
11 waste, which is defined in the law as everything but
12 irradiated fuel, and it's my understanding that it was
13 transuranics above 100 nanocuries per gram, and that
14 even when the amendments act passed in '85, that
15 states still had this responsibility to provide for
16 disposal for the private nuclear power facilities and
17 other nuclear generators in states.

18 And in 1992, the provision that would
19 force states to take title and liability to this
20 waste, if they didn't provide for disposal, was
21 overturned by the Supreme Court.

22 But since the same programs were still in
23 progress in the ten or so context, there were many
24 programs going on, and the only site that opened was
25 a WCS site. None of the other sites opened. Utah

1 opened, but not really under the Nuclear Waste Policy
2 Act. However, it's limited to Class A concentrations.

3 So now we're being asked and Utah's been
4 asked to take higher concentration waste at its dump.
5 We're being asked for the operating dumps that are
6 left in Washington, in South Carolina, and Texas,
7 potentially in Utah, to take wastes that have higher
8 concentrations than those in the A, B, and C
9 categorizations.

10 Well, I've been part of the public
11 interest community, focusing on so-called low-level
12 waste since 1979 and in 1980, and in those early '80s,
13 we -- the Sierra Club passed a provision, calling on
14 low-level radioactive waste to be redefined to exclude
15 anything that was hazardous longer than the
16 institutional control period required for the
17 radioactive waste site, and to have a goal of zero
18 release, to try to isolate the waste rather than make
19 it legal to expose people now and in the future to
20 radioactivity from this waste.

21 When the 1985 amendments act passed, then
22 Congress said, Oh, well, okay; we'll just have states
23 be responsible for Classes A, B and C, but this other
24 stuff that's even more concentrated, we'll have the
25 DOE take care of it.

1 Well, DOE's having a hard time finding a
2 high-level nuclear waste dump, and while we believe
3 this waste is hot enough to be considered high-level
4 waste or should be isolated, the public interest
5 communities who've been focusing on these so-called
6 low-level waste dumps since 1980, when the law first
7 passed, certainly during that whole siting period when
8 there were 40 or 50 dumps targeted around this
9 country, people were saying, This isn't low-level
10 waste. If it's hazardous longer than we're going to
11 have institutional control, it shouldn't be there.

12 So my point is that what's already in the
13 low-level radioactive waste category is more than it
14 should be, and now what we're being asked to do is
15 accept even more, and exponentially more potentially,
16 depending how one looks at it, certainly many time
17 more radioactivity going into facilities that really
18 are only required to have a hundred years of
19 institutional control or are only assumed to have
20 that.

21 So the amount of radioactivity and the
22 longevity of the radioactivity in all three
23 categories, A, B, and C, is beyond a hundred years.
24 We also know from more recent updated information, but
25 it's not all that new, that women and children have

1 much more health effects than men from the same amount
2 of dose. So we've got sexism in our radiation
3 standards.

4 What's allowable for a standard male,
5 which is what the -- or average men and women in some
6 cases, the amount of radioactivity, the legal doses of
7 radioactivity are based mainly on men, and women get
8 more cancer than men, children many times more cancer
9 than men at the same doses.

10 So in addition to putting more
11 radioactivity in, into sites, we're also putting a
12 greater threat on parts of our population, parts of
13 our life cycle, that -- we're putting more threat on
14 our life cycle, on the human and the other organisms'
15 life cycles.

16 So we really need to have a goal of
17 isolating this waste and putting it into a facility
18 that has potential connections to water supplies, to
19 downwind communities, requires transportation back and
20 forth across the country, is too big of a danger.

21 So -- and then going back to the
22 inadvertent intruder and the analyses, where they're
23 done, I had actually a couple of questions for the
24 NRC. I tried to raise them on the 22nd, and I still
25 don't quite get it. So the calculations are being

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1 done that would allow for much, much higher
2 radioactivity, longer lasting, more intensely
3 concentrated, which means it's going to be dangerous
4 longer because it takes more half-life to decay.

5 We're being asked to put that into
6 facilities and let the -- as it stands now, it's my
7 understanding, that on a case-by-case basis, state
8 regulators can allow for greater-than-C to go into
9 these 10 CFR 61 facilities.

10 So if it can be done on a case-by-case
11 basis now, which I know that it has been -- I think it
12 has at the other sites -- then is what this rule would
13 do, one of the options for the rule would be to make
14 it generic?

15 It would be up to the dump operator? It
16 would be up to the NRC with an agreement state in
17 developing the allowance for higher-than-Class C
18 limits going to these sites? How would it be
19 different than it is now, is one of my questions.

20 MR. CAMERON: And, Diane, could you ask
21 your other question, and then we'll go to the NRC to
22 answer, and then we'll come back to speakers in the
23 room. But ask your other question while we have you.

24 MS. D'ARRIGO: The other is 500-year
25 institutional barrier, is that something that's now

1 being added? And where did you get the -- I thought
2 that I heard on the 22nd 500 millirems as the
3 allowable dose, when, in fact, 10 CFR 61.41 says it's
4 25-75-25.

5 MR. CAMERON: Okay. Thank you. Thank
6 you, Diane, for joining us. And we're going to go to
7 Tim McCartin for first and second question, or however
8 you want to do that. Tim.

9 MR. McCARTIN: Well, first I'll address
10 the 500 millirem dose and 25 millirem dose. The 25
11 millirem dose is to an off-site individual, and that
12 has not changed. We're not doing anything different
13 for GTCC waste.

14 What is different is the classification
15 scheme of A, B and C was based on assessing the
16 intruder hazard, and when they were looking at the
17 intruder, they looked at limiting the dose to the
18 intruder to 500 millirem for the whole body, and
19 that's a 500 millirem dose in today's dosimetry.

20 MS. D'ARRIGO: Where is that from? It was
21 in the 10 CFR 61?

22 MR. McCARTIN: Well, you won't see it in
23 61 in terms of any of the requirements, because the
24 concentration limits were done to ensure you don't get
25 more than a 500 millirem dose. That would be in the

1 development of Part 61, and when I'm finished, I know
2 Dave Esh might be able to give a reference of where
3 that information is from the development of Part 61.

4 Because now we're in a situation for
5 greater-than-Class C waste, the classification limit
6 doesn't apply anymore --

7 MS. D'ARRIGO: Wait, wait, wait. So
8 you're saying that in 10 CFR 61, environmental impact
9 statement or whatever the background was that was
10 updated, that in that they decided it was okay to use
11 500 millirems for an inadvertent intruder?

12 MR. McCARTIN: Correct.

13 MS. D'ARRIGO: But for people who are off-
14 site, they would only get 25?

15 MR. McCARTIN: That is correct.

16 MR. CAMERON: Okay.

17 MR. McCARTIN: When Part 61 was developed.
18 Now, because Part 61 in its current form doesn't allow
19 things greater than Class C, how do you protect the
20 intruder? Because the suggestion -- you know, it is
21 greater-than-Class C. These wastes are higher than
22 that limit.

23 And so that's why we've suggested in our
24 reg basis that you need to do an analysis of the
25 intruder to ensure the intruder continues to be

1 protected to the level that was protected for the
2 Class C waste in Part 61, which is that 500 millirem
3 dose.

4 In addition, we've said Part 61 says you
5 could have, for Class C waste, a 500-year intruder
6 barrier or depth below five meters. For greater-than-
7 Class C, we're not suggesting the or, but you put it
8 at least five meters below the surface and a 500-year
9 intruder barrier, so there's additional protection for
10 these greater concentrations.

11 But at the heart of it, you still are
12 going to have to show the level of protection is the
13 same as the level of protection that's provided for
14 the intruder by the classification scheme.

15 MR. CAMERON: Now, do you want to answer
16 the second question? Was that Diane's first question?
17 Are you still with that?

18 MR. McCARTIN: Can you refresh my memory.

19 MR. CAMERON: Diane, can you ask -- in a
20 short way, can you ask what your first question was.

21 MS. D'ARRIGO: Well, we're in the middle
22 of the 500 millirem one. Why don't we just finish
23 with that.

24 MR. CAMERON: Well, because I think we
25 might be here until tomorrow to finish it.

1 MS. D'ARRIGO: It's kind of a yes or no.
2 If it's in the regulation, the 500 millirems, and I
3 just can't find it.

4 MR. McCARTIN: Well, correct. You will
5 not see 500 millirem in 10 CFR Part 61. But what you
6 do see --

7 MS. D'ARRIGO: But that's the protection
8 for the intruder that you're providing.

9 MR. McCARTIN: And that's how they
10 determine the concentration limits for A, B and C
11 waste, to limit it to 500 millirem for the intruder.
12 That's how they derived those concentrations. You do
13 see the concentrations.

14 You don't see an explicit statement in the
15 regulations that that concentration was protecting the
16 intruder to 500 millirem. You will see it in the
17 documentation for the development of the
18 classification, the concentration limits. And Dave
19 Esh may be able to provide a reference where that is.
20 I'm not --

21 MR. CAMERON: Dave, do you want to --

22 MS. D'ARRIGO: That's okay. I'll --

23 MR. McCARTIN: -- add something?

24 MS. D'ARRIGO: -- find it offline. But --

25 MR. CAMERON: Are you okay, Diane?

1 MS. D'ARRIGO: What we've got is the 500
2 millirems. What you're trying to calculate now is if
3 you put in much higher concentration waste, it'll
4 supposedly just only give that same amount of 500
5 millirems to the inadvertent intruder?

6 MR. McCARTIN: Well, the -- an application
7 would have to demonstrate that the wastes they are
8 disposing of would result in no more than that same
9 dose limit of 500 millirem for the intruder.

10 MS. D'ARRIGO: Well, isn't that what's
11 used now for a case-by-case basis, to put greater than
12 C at these sites?

13 MR. CAMERON: And, Diane, I think we're
14 going to have to go to your first question. We've
15 tried to ventilate this --

16 MS. D'ARRIGO: This is my first question.
17 What is the difference between what they're doing now
18 on a case-by-case basis doing -- versus how it would
19 be done more generically in the future, or whether it
20 would be up to the waste operator to do the analysis
21 itself.

22 MR. McCARTIN: Well, I'm not exactly
23 sure --

24 MS. D'ARRIGO: It's the distinction
25 between how it's done now and what the option would

1 be. I know you said there's three options.

2 MR. McCARTIN: Well, there is no --

3 MS. D'ARRIGO: How would that --

4 MR. McCARTIN: There is no GTCC --

5 MS. D'ARRIGO: -- analysis be done? Would
6 it be done once generically, or would it be done on
7 each time? And how's it different than what they do
8 now?

9 MR. CAMERON: Okay. We're going to go to
10 that one.

11 MR. McCARTIN: Okay. Well, there isn't
12 any GTCC waste being disposed of under Part 61 now.
13 What --

14 MS. D'ARRIGO: Well, at Barnwell I know
15 there has been.

16 MR. CAMERON: Diane, could you just let
17 him finish his answer.

18 MR. McCARTIN: Now --

19 MS. D'ARRIGO: Sure.

20 MR. McCARTIN: -- in terms of the three
21 alternatives, if we did a rulemaking, we would codify
22 the requirements for the intruder assessment, and that
23 would be done for all sites that potentially could
24 seek that.

25 Now, case by case, they still are going to

1 have to show how the intruder is protected, because
2 the classification scheme, you're going beyond what's
3 allowed, beyond the Class C limit, so you have to show
4 the intruder is protected. So we would assume a
5 similar kind of assessment of the impact to the
6 intruder, what the dose might be.

7 MR. CAMERON: Okay. Diane --

8 MS. D'ARRIGO: Well, then, you better
9 consider that women get more cancer than men at the
10 same dose, and kids get even more.

11 MR. CAMERON: Let's try to answer that
12 one, and then we'll go on. Go ahead, Tim.

13 MR. McCARTIN: Well, the dosimetry in
14 terms of -- and it probably is a bad terminology, but
15 the reference "man" is not a male per se. It is a
16 male with additional organs related to a female, so it
17 is a composite. And so you average the dose for all
18 the organs that are there.

19 VOICE: Who knew the NRC could do that?

20 MR. McCARTIN: Well, no. That's ICRP.
21 That's common radiation protection. There is a
22 recognition --

23 MS. D'ARRIGO: That's not a minimum.

24 MR. CAMERON: Okay. So there may be a
25 seminar in the bar upstairs. Okay.

1 But, Diane, I'm going to have Dave Esh try
2 to give you some references that may be helpful. And
3 then we're going to come back in the room here to J.
4 Nile Fischer, and Sylvia Pope. Dave Esh for Diane
5 D'Arrigo.

6 MR. ESH: Hi. This is Dave Esh. And you
7 were asking about references or Tim pointed you in the
8 direction of me for references. So hopefully I won't
9 mess up the numbers, but I probably will. The draft
10 EIS, I believe, is NUREG-0782, and then the final EIS
11 for Part 61, I believe, was NUREG-0945.

12 And then there's a whole series of
13 supporting documents that if any of you have insomnia,
14 you're free to browse. NUREG-CR-1759, volume 3. All
15 of these walk through all those historic calculations,
16 and they're very detailed. They can be very difficult
17 to go through.

18 So one other reference I'll give you is
19 some colleagues and myself just did a waste management
20 paper this past year on a new tool that we're
21 developing called Table Calc, and that document, I
22 think, walks through pretty clearly in like ten pages
23 how the NRC developed the waste classification
24 concentrations. So if you don't want to read 1,500
25 pages, you can start with the ten-page primer.

1 The primary author was my colleague
2 Christian Ridge -- her last name is R-I-D-G-E -- and
3 myself, David Esh. If you use Google and put our
4 names in and try Table Calc, hopefully that should
5 come up. if not, send me an email, and I'll send you
6 the paper, and that should give you a good start.

7 MR. CAMERON: Could you give Diane your
8 email with NRC.

9 MR. ESH: Yes. It's -- all our emails,
10 unless you share a name with somebody else, which I
11 don't, with a three-letter weird last name is first
12 name, dot, last name, at NRC.gov. So that's
13 David.Esh@NRC.gov.

14 MR. CAMERON: And the spelling of Esh --

15 MR. ESH: Is E-S-H.

16 MR. CAMERON: Okay. Diane, thank you.
17 Thank you for your interest.

18 We're going back in the room here, and I'm
19 sorry. Fischer? And if you could just pronounce the
20 whole thing for Donna.

21 MR. FISCHER: Hello. I'm J. Nile Fischer
22 from Arlington, Texas. I live within 60 miles of
23 Comanche Peak. I take that this is about changing the
24 designation of waste, and it bothers me because I have
25 concerns that we're going to let the electric

1 utilities and the Department of Energy and the
2 creators of our nation's nuclear waste externalize the
3 cost of storage.

4 So any move that's going to take our high-
5 level waste, call it another thing and stick in a low-
6 level storage facility is concerning to me. We can't
7 go on the cheap with storing high-level waste. We
8 cannot entrust the public's health well into the
9 future to short-lived, state-based interim storage
10 facilities that are for profit.

11 What requirements can the NRC make to
12 ensure that an agreement state maintains security to
13 prevent intruders? Now, that's a rhetorical question,
14 because at this point, I don't think the NRC has any
15 way to ensure that the waste is going to stay on the
16 ground beyond a hundred years, and we know that this
17 waste can stay hot and dangerous for thousands of
18 years, some of it.

19 This question becomes even more difficult,
20 given that these interim facilities are not federally
21 licensed. Right? These are state facilities. They
22 may have to meet some federal regs, but incredibly,
23 these are agreement states' responsibilities once
24 they're opened.

25 I'm concerned that the nuclear fuel that

1 our DOE programs generously subsidized, that provided
2 cheap nuclear fuel to public utilities, will have to
3 be guarded at the expense of the local agreement
4 states' budgets. To me, it seems unfair to expect
5 that an agreement state's future taxpayers foot that
6 bill, long after the for-profit storage facility
7 operators close shop.

8 That said, if any GTCC or GTCC-like wastes
9 are going to be recategorized so that they can be
10 deposited at the current low-level, privately managed,
11 consolidated interim storage facilities in various
12 states, then this regulatory agency must consider a
13 plan that protects the American citizen in these
14 states well beyond the 500 years discussed in the
15 models for this new regulation.

16 The NRC has a responsibility to keep the
17 public safe, today's public and the public beyond 500
18 years. Among the environmental science community,
19 which I'm a part of -- I'm a retired science
20 teacher -- there's a maxim. All waste is public. Our
21 Federal Government created the radioactive materials,
22 most of them, subsidized the production of commercial
23 reactor fuels, and promoted their commercialization.

24 There is a fiscal and regulatory
25 responsibility that these new rules will allow.

1 Please do not consider the reclassification of higher-
2 level waste for short-term economic convenience. And,
3 please, for the love of science, keep the highest-
4 level waste in federal hands and out of these
5 consolidated interim storage facilities in these
6 agreement states.

7 Thank you for your time.

8 MR. CAMERON: Okay. Thank you.

9 (Applause.)

10 MR. CAMERON: Thank you very much.
11 Sylvia, Sylvia Pope.

12 MS. POPE: Hello. I'm Sylvia Pope. I'm
13 from Austin, Texas. Thank you for holding this
14 hearing here tonight.

15 And rather than recapping the many
16 excellent points that other speakers have made about
17 the importance of isolating the GTCC and GTCC-like
18 waste in a geologically correct and appropriate
19 facility, I'm just going to tell you about my
20 experience of working early in my career at two
21 facilities that had attempted to contain radioactive
22 contaminated waste on site.

23 And it's my hope that this proposal be set
24 aside, because it's inappropriate to reclassify this
25 waste at a lower level to make it acceptable to bury

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1 at a shallow depth.

2 So I worked at two sites, and at one site,
3 the concrete entombment container of this mixed
4 radioactive waste site was on the verge of rupture,
5 and that posed a very serious health risk to the
6 public.

7 Just the mere drilling to characterize the
8 contamination in the soil required placing blasting
9 mats on the ground so that the drilling crew and the
10 geologists would be protected from intercepting this
11 buried waste. It is for this reason and this
12 experience that I think it's a highly dangerous
13 precedent to recharacterize this GTCC waste and bury
14 it at a shallow depth.

15 It places our soil, water and air at risk,
16 and we need to reevaluate this proposal, rescind it,
17 or at the very minimum, come up with extremely
18 stringent guidance for any disposal practices and make
19 the disposal practice and the containment structures
20 appropriate for the radioactive half-life of the
21 materials buried therein. Thank you.

22 MR. CAMERON: Thank you very much, Sylvia.

23 (Applause.)

24 MR. CAMERON: And, Marcus, do we have
25 anybody else on the phone that wants to talk?

1 MARCUS: No questions at this time.

2 MR. CAMERON: Okay. Thank you, Marcus.

3 And let me just check in the room. Is
4 there anybody who did not get an opportunity to talk
5 that wants to say something?

6 (No response.)

7 MR. CAMERON: Okay. The NRC staff is
8 going to be here to talk informally with you and maybe
9 the question you were trying to address about the --
10 whatever gender that was. Okay? Maybe you could talk
11 about that.

12 (General laughter.)

13 MR. MCCARTIN: I'd be happy to.

14 MR. CAMERON: At any rate, I'm going to
15 ask Trish Holahan, as the senior NRC official here, to
16 close out for us. Trish.

17 DR. HOLAHAN: Thank you, Chip. Thank you
18 very much for all your comments. It was a good
19 discussion. We heard them all, and several good
20 points were raised, so it is something to consider as
21 we move forward.

22 Okay. Well, thank you very much for all
23 your comments. It was a lively discussion, and some
24 good points were made that gives us food for thought
25 and consideration. So we'll take your comments.

1 MS. HADDEN: Will you accept those --
2 tonight's comments as formal comments, please?

3 DR. HOLAHAN: I'll have to go back, but
4 what we do with a regulatory basis, we don't itemize
5 each individual comment. It's not a comment response,
6 so we'll take into consideration the comments that we
7 received by reviewing the transcript. But if you can
8 provide written comments, please do, because you made
9 very good comments, but we can't attribute everything
10 exactly the way you want them to be attributed. If
11 you provide them in writing, we'll --

12 MS. HADDEN: Well, isn't there a
13 transcript?

14 DR. HOLAHAN: Yes. But -- there is a
15 transcript, but we'll review it.

16 MS. HADDEN: Isn't this typically done,
17 though? I've been in many, many NRC meetings where
18 the transcript was used to create the formal comments,
19 and typically they are accepted at a meeting like this
20 as formal comments. This is unusual not to do that.

21 DR. HOLAHAN: We've done other rulemakings
22 the same way, but we'll take your comments into
23 consideration, and we'll review the transcript.

24 MR. CAMERON: And I think there's one
25 other thing that Karen brought up before was will you,

1 when you make this decision, will you publicize that,
2 so people know whether the comments they gave tonight
3 was okay; they don't have to repeat them. Is that
4 correct, Karen?

5 MS. HADDEN: Yes. That's part of it.

6 MR. CAMERON: Okay.

7 DR. HOLAHAN: Okay. Well, we'll take that
8 back and -- is that what you're saying?

9 MR. PESSIN: I was just -- yes.

10 DR. HOLAHAN: Okay.

11 MR. PESSIN: And one thing you could do is
12 you could -- I know you prepared --

13 MR. CAMERON: Get on the record, Andy.

14 MR. PESSIN: Sorry. To the extent that
15 you prepared a statement that you read from, that
16 could be the basis of a written comment that you
17 submit. I mean, that would be one way to work this
18 out. I mean, it's -- there's no legal requirement
19 that we consider comments received at a meeting like
20 this to be formal comments. I mean, we could do that,
21 but it's not a part of --

22 MS. HADDEN: Please do.

23 VOICE: Why do you think we're here?

24 MR. CAMERON: What if they got the
25 transcript -- and, Donna, when will the transcript be

1 available?

2 THE REPORTER: Do you know when it was
3 requested originally? Was it rush?

4 MS. MAUPIN: Normally seven days.

5 THE REPORTER: Okay. That sounds right.

6 MR. CAMERON: What if they Xeroxed the
7 part of the transcript and submitted that as a formal
8 comment? Would that work? I'm going to go to
9 Cardelia.

10 MS. MAUPIN: In rulemaking -- we're in
11 pre-rulemaking right now. What we would like is for
12 you to submit your written comments so they can be on
13 the docket, because we've tried -- we tried previously
14 with the last couple of public meetings, because
15 sometimes you can -- we are all like human, subject to
16 misinterpret the comments and the strength of the
17 comments that you are trying to make.

18 So we are asking, if you are vested in
19 your comment, that's why we ask that -- we publicize
20 this as a means to clarify your questions, so that you
21 can submit the comments on the docket, because there
22 is no way we can formally do this if you do not
23 formally submit them on the docket, and we provided in
24 the Federal Register notice a number of ways in which
25 you could submit them on the docket.

1 So if you are vested in your comments,
2 whatever you've written down, you can put your name
3 and submit those on the docket.

4 VOICE: Why don't you just say you don't
5 want to do it? That's what you're saying. You don't
6 want to do it.

7 MR. CAMERON: Okay. I think --

8 MS. HADDEN: One more question.

9 MR. CAMERON: Go ahead.

10 MS. HADDEN: Could you then -- the nature
11 of oral comments is different than written comments.
12 It's part of a dialogue that's happening here, and the
13 way it comes across is often different. Both are
14 valid, and I'm hoping that you'll accept both as
15 formal comment. I'm going to ask for that again.

16 And would you please in this case send us
17 a copy of the full transcript so that we might take
18 down what we said and send it to you, because what I
19 had written down, for example, is not what I said on
20 the microphone. We're here with real people, and it
21 comes out differently. I'd be happy and I plan to
22 submit additional written comments as well, but the
23 two are different, and we'd like it all to count.
24 People came from all over the state that are here
25 tonight.

1 MR. CAMERON: Okay.

2 DR. HOLAHAN: I think you have a -- you
3 make a good point, and we'll certainly send you the
4 transcript when we get it, if you provide the
5 addresses.

6 MS. MAUPIN: Could I amend that? We were
7 planning to put the transcript -- and we said this at
8 our April -- we said this at our meeting on August 22,
9 that once the transcript is available, that we would
10 put it up on the site for -- and on the docket for
11 GTCC. I think, as opposed to trying to send that
12 document to everyone, we plan to put the information
13 up on the docket and on our public website.

14 MS. HADDEN: On ADAMS?

15 MS. MAUPIN: No. The docket specifically
16 for this one that I had referenced earlier. We would
17 put it up on the docket. I know a lot of people have
18 problems pulling stuff up out of ADAMS, so there was
19 a report we just made public. We put that up just
20 within the last week. We've put that up on the
21 docket, so to make it easy for you to get to. So we
22 were planning -- that's what we said before -- to put
23 this up on the docket.

24 MR. CAMERON: Okay. We're putting it up
25 on the docket. It'll be available, and do you want to

1 finish up for us, Trish.

2 DR. HOLAHAN: And if you can't get it on
3 the docket, please send an email to us, and we'll send
4 it.

5 MS. HADDEN: And by when, because we have
6 a September 20 deadline.

7 DR. HOLAHAN: Well, it'll be available
8 within seven days, so we'll put it on the docket --

9 MS. MAUPIN: As soon as we get it.

10 DR. HOLAHAN: -- as soon as we get it.
11 And then -- so in about two weeks.

12 MR. CAMERON: Okay. This is good, a good
13 path forward perhaps here, and --

14 DR. HOLAHAN: Yes. And if any of you
15 can't access it on the docket, please notify us, and
16 we'll send it to you.

17 MR. CAMERON: Okay. And, Trish, do you
18 have any other close-out remarks for us?

19 DR. HOLAHAN: No. Just thank you very
20 much, and I look forward to hearing more from any of
21 you.

22 (Whereupon, at 8:35 p.m., the public
23 meeting was concluded.)

24

25