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7	GREATER-THAN CLASS C (GTCC) AND TRANSURANIC WASTE
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14	Sabine Room
15	9721 Arboretum Boulevard
16	Austin, Texas
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PROCEEDINGS

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

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

VOICE: You've lost audio, Chip.

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

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

And with that -- oh, one other thing.

Radio station KUT did a public service announcement,

and we thank them for that, about the meeting tonight.

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

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

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

VOICES: We hope it does.

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

of Nuclear Material and Safety and Safeguards.

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

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

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

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

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

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

These activities, along with the comment letters received in response to the Federal Register notice helped to inform this draft regulatory basis which we're going to talk about more. And so the NRC staff looks forward to discussing the draft regulatory basis with you at today's webinar, and then I will turn it over to Cardelia to go through her 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. MS. MAUPIN: Can everybody hear me okay? 6 7 Good evening. It is my pleasure to talk to you today about the GTCC draft basis. You might be asking, why 8 9 are we here. What's the purpose of this meeting? 10 If you know anything about the NRC, one of the things that we believe as one of the principles of 11 good regulation for nuclear materials is that nuclear 12 regulation is the public's business. And it must be 13 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. So that's why we're here today. 18 19 here seeking your help. We're looking for stakeholder participation and involvement in this issue called 20 greater-than-Class C waste disposal. I will be 21 referring to it as GTCC, because transuranic waste, 22 23 what we've seen from looking at the various waste 24 streams, is basically a subset of greater than Class

C.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 sealed sources, these are used in industrial and medical applications. And there's a big wide open 2 third category called other waste, which could include 3 4 waste generated from decommissioning, or in this case, 5 these are glove boxes that might have been contaminated and now is considered, you know, waste. 6 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. You're back on. 11 VOICE: MS. MAUPIN: Sorry about that. 12 Okay. Thank you. 13 14 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 the Low-Level Radioactive Waste Policy part of 18 19 Amendments Act of 1985. Basically it said that the NRC is to license the facility and determine whether 20 or not it is adequate to protect the public health and 21 22 safety. That act also required DOE to submit to 23 24 Congress a report with recommendations and options for

the safe disposal of all GTCC waste, the waste that's

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

In terms of the results, we found the

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

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

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

Next slide, please. In terms of the waste

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

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

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

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

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

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

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

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

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

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

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

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

Next slide. In terms of what hazards did we look at, we looked at, first, operational hazards.

Regardless of how you dispose of it, you do have to

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

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

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

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

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

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

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

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

transuranic radionuclides. They present challenges.

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

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

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

VOICE: What kind of barrier?

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

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

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

1 haven't captured. Maybe there's different ways of looking at this waste that would be helpful. 2 that's part of why this is our perspective, based on 3 4 the inventories we saw, and we think it's potentially 5 suitable. But I do want to stress, it would need to 6 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 health and safety are protected. And with that, I 11 will --12 MS. GOSLEE: May I ask one question? 13 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 to do is we're going to clear up some of the questions 18 19 first before we go to comment. And I just have to get you on the record for our court reporter, so please 20 introduce yourself. 21 I'm Susybelle Goslee. 22 MS. GOSLEE: Sure. And where site-specific can you show us that concrete 23 24 has lasted for 500 years without degrading over that

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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
l	I control of the cont

1 MR. CAMERON: Thank you, Tim. Cardelia will finish it up for us, very important about where 2 you submit comments. We'll get to everybody. 3 4 VOICE: Chip, would you just announce 5 Jim's last name again. I didn't catch. MR. CAMERON: McCartin, M-C, capital C-A-6 7 R-T-I-N. We'll go to Cardelia, and then we'll 8 9 figure this battery thing out. Thank you. 10 MS. MAUPIN: Okay. If I could get your attention, we can go to slide number 15, please. Next 11 slide, please. Okay. As we said from the beginning, 12 nuclear regulation is the public's business, and so we 13 14 want to do our business. NRC does its business with 15 transparency, participation as we're doing today, and collaboration. 16 17 And so what I have for you is these are how you're going to get -- you can get additional 18 19 information regarding this topic, and also how you can contact the various people, myself, Tim McCartin, and 20 our other colleague, Gary Comfort, in terms of 21 additional information or clarifying questions. 22 23 Next slide, please. Slide number 16, 24 please. Okay. Great. This provides how you can

provide your comments.

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We're here today to clarify

1 some of your questions, but we encourage you present, to provide your comments in writing, and we 2 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 can -- we are clear on the comments you're making, and 6 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 your comments, make sure that you include this docket 11 number on all of your correspondence, and once again, 12 the comment period ends on September 20. 13 14 So now we'll open it back up, Chip, to 15 comments and questions. 16 MR. CAMERON: Okay. Thank you, 17 Thank you, Cardelia. And before we go to comments, let's clear up some questions that you might have. 18 19 And when we go to the phones for their comments, they can ask their questions, too. We're going to try to 20 deal with the audience first, and if you could please 21 introduce yourself. 22 I'm Marion Mlotok. 23 MS. MLOTOK: And my 24 question is about drilling practices. So what

drilling practices are now might not be what drilling

1 practices are in 500 years. I give fracking as an example. It wasn't a drilling practice 50 years ago. 2 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 predict what the future brings, but one would look at 6 7 the drilling practices, and there's possibly some understanding of things may change, but it's hard to, 8 9 you know -- I mean, I recognize with 500 years, it is hard to understand what would be out there from a 10 drilling standpoint. 11 The other aspect, too, is what might be 12 out there to understand what's below ground before you 13 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 --MR. CAMERON: And I just note that the NRC 18 19 staff will be here after the meeting, if you want to follow up on some of this. So are there other 20 questions? Yes, sir. Let's go back here. And just 21 introduce yourself. 22 Certainly. Thank you. 23 MR. BRADEN: Му 24 name is Al Braden. I'm a citizen of Austin concerned I've got some prepared remarks, but I'm

with this.

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

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

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

MR. McCARTIN: Well, one, the 500-year intruder barrier, I did not mean to imply we weren't looking beyond that. The analysis would need to look at the long-term effects, but you're not assuming that intruder barrier is intact after 500 years. And so that's, you know -- that was just for the long -- you can't try to propose, let's say, a 10,000-year intruder barrier. That 500 years is a minimum that 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
LO	is
11	MR. McCARTIN: But if you met the
12	regulatory limits, say, at 500 years, generally for
L3	most of these radionuclides, it would be easier to
L4	meet it at 10,000 years, because a lot more has
L5	decayed away. There is some in-growth, and you're
L6	right on that.
L7	But generally for waste disposal, it gets
L8	easier with time as things decay away, from an
L9	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 So anybody -- yes, ma'am. 3 minutes with comments. 4 MS. BARKER: I'm Martha Barker. I'm a 5 resident of Kyle, Texas, just south of Austin. don't hear any mention of anything to do in the models 6 I'm thinking 7 or the projections about earthquakes. 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 mentioned in your studies. Are you doing projections 11 about earthquakes? 12 MR. McCARTIN: Well, the 13 14 regulations at 10 CFR Part 61 do have requirements for 15 staying away from high seismic areas, things of that -- it would be considered in the analysis. When 16 said, site-specific, I didn't go into all the 17 different things, but you have floods; you have 18 19 erosion; you have seismic activity in some parts of the country; volcanic activity. 20 All those things have to be considered. 21 Generally, you are trying to steer clear of high 22 seismic areas, high erosion areas, flooding, 23 cetera. It would be evaluated, though. But that's in

10 CFR Part 61 already. It's not anything that we

24

would do differently.

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

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

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

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

VOICE: The proposed.

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

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

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

because the Commission directed us to look at that 1 2 question, public and also to have specifically, and that SRM directed us to have public 3 4 outreach within the state of Texas. 5 MR. CAMERON: And, Cardelia, maybe another way to provide information is you -- on one of your 6 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. I mean, how does that fit in? I think the 11 12 gentleman is concerned about Waste Control Specialists' facility and this type of material. 13 you say anything about that? 14 15 The only thing I can say is MS. MAUPIN: 16 that, one, we were directed to do this by the 17 Commission. Okay. Secondly, this is not something did environmental that is hidden. but DOE an 18 19 assessment for Waste Control Specialists that was also issued in October of 2018, specifically for WCS to 20 receive this type of waste. That's public knowledge, 21 public record. So I'm just giving you the facts as 22 23 they exist. 24 MR. CAMERON: And can you just tell him

that -- we think it's a great point that you mention

1 the DOE document, but there were more sites that WCS Right? 2 has. 3 MS. MAUPIN: Well, when they did the environmental impact statement, they did it 4 for 5 several sites. But they only did environmental assessment for WCS which was issued approximately on 6 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, MR. CAMERON: Okay. Thank you for that 11 question. And, yes, sir. 12 is 13 MR. SINGLETON: Μy name Robert 14 Singleton. And I want to try to put this question in 15 as nonpolitical terms as possible. But it was my understanding that it's the policy of the current 16 17 administration that for every new rule, two have to be stricken from the books. Any idea what two rules are 18 19 going to go by the wayside if this rule is instituted? MR. CAMERON: Maybe Andy Pessin from our 20 Office of General Counsel can answer that for you. 21 Andy. 22 That's a good point. 23 MR. PESSIN: Wе 24 would have to comply with that executive order. Ι don't believe we've identified any two particular 25

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

MR. CAMERON: And keep in mind what Tim talked about and perhaps Cardelia, is that there's a

talked about and perhaps Cardelia, is that there's a number of alternatives besides rulemaking for addressing this issue. Is that correct?

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

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

Thank you. Adrian Shelley MR. SHELLEY: with Public Citizen. And my question is about in the Federal Register notice of this rulemaking or this draft obligation mentions evaluate the an to cumulative effect of regulations mentions and specifically other regulatory actions by the NRC, including license amendment requests. I'm if specifically wondering the Waste Control Specialists' application for high-level storage is one of the other license amendment requests that's being 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. I worked -- I was a 6 MS. MAUPIN: Okay. 7 part of the working group that came up with cumulative effects of regulation, and what happened was that 8 9 post-9/11, NRC was doing a number of -- was changing a number of requirements. 10 And then our licensees and other entities, 11 like the agreement states, say, hey, this is just too 12 much, you know, at one time and trying to implement 13 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 on the books. 17 So we were directed by the Commission to 18 19 say, hey, when you are pre-rule, which we are here, pre-rulemaking, before you even do that rule, we want 20 you to go out, and we want to talk -- we want you to 21 talk to our stakeholders. We want their input on how 22 this could potentially affect them. So that's why we 23 24 are here at this pre- -- we're at the pre-rulemaking

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stage, asking for your input.

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 would want to go back and rook at the rederal
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 requirements or any other proposed requirements. 2 3 In that sense, yes. yes. 4 MR. CAMERON: Okay. Let's go to Susy and 5 Karen, and we're going to comments, and Karen is going to lead us off there with comments. Okay. 6 Susy, do 7 you have a question? I do. 8 MS. GOSLEE: 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 with an executive order. Who is that executive, and 11 how would that order be determined? Be very specific, 12 13 please. 14 MR. PESSIN: Well, an executive order 15 actually is not a law. It's not a law or regulation. It does not have the force and effect of law. 16 17 essentially an executive order is, it's a direction so the president is the chief from your boss, 18 19 executive, and so when an executive order is issued, federal agencies are expected to comply with the --20 with that executive order. 21 Now, again, it's not a law, so somebody 22 can't bring a lawsuit based upon whether an agency 23 24 complies with the executive order or not, and if an

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
LO	seems highly unusual that at a public meeting where
L1	comment is taken and there is a transcript being
L2	taken, that our comments cannot be given formal
L3	comment weight.
L4	And I would like to ask that you
L5	reconsider that decision and take our comments tonight
L6	as part of formal comments. I'm sure some of us would
L7	also follow up with written comments as well, but I
L8	think that the things that are said here tonight
L9	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,

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.

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

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

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

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

belong in shallow burial.

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

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

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

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

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

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

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

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

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

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

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

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

1 being given to sites that exist that could take this waste right now for deep isolation. 2 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 Thank you. MR. CAMERON: Thank you very 10 much, Karen. Martha, Martha Barker from Kyle, Texas. 11 So I'm Martha Barker from MS. BARKER: 12 Kyle, Texas. I'm a relatively new resident. 13 14 from Maryland, neighbor to the Commission there in 15 Rockville, and so I'm learning about what's happening in Texas in terms of the environment. 16 What concerns me the most about this is 17 that it sounds as though the impact study that's been 18 19 done is only relating to this site, but the site is part of a web, and the web includes how that material 20 gets to the place. It presumably has to come on some 21 conveyance, so it's effect -- it's going through 22 towns; it's going through cities; it's going on trains 23 24 or by rail, by road. So my concern is that it doesn't seem that 25

the impact is addressing a wide enough impact crater, if you will. The other thing -- and I'm not a geologist, but as I look at the rock formations in this area -- and I believe it extends -- somebody might be able to help me with this, but I heard somebody explain it that putting toxic waste into the karst in this area is like pouring it into Swiss 8 cheese. I see these formations in the lovely landscaping in my community. There are holes. are little bitty holes. You can see right through The kids like to look through them. But we're talking about putting nuclear waste in that sort of rock formation. And as I said earlier, the concern about earthquakes, I'm not sure how we can, at this stage, predict the seismic activity for 500 years. Wе already see that in this area, there has been more seismic activity than previously, due to fracking. So those are my concerns. Thank you. Thank you. Thank you very MR. CAMERON: And that was Martha Barker. 22 much. Okay. And, Marcus, are you still with us? Yes, sir, I am. MARCUS: MR. CAMERON: Okay. We're going to go to

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1 some more people here in the room, and then we're going to go to the phones. But I just wanted to make 2 sure we still had you on board. That's the operator. 3 4 Robert, Robert Singleton. This is Robert. 5 MR. SINGLETON: name is Robert Singleton, and if you have any doubt on which category 6 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 That's the category I will be in. please no. 10 I've been thinking about trash bags today, and this will become germane. You know those flexible 11 12 trash bags, where you can cram more and more stuff Well, that's a lot like the NRC license, 13 the license for WCS. Every time we think we know what 14 the license limits are, they've got another proposal 15 16 to add something else to it, high-level nuclear waste, 17 GTCC waste. And by the way, thank you, Cardelia, for 18 19 talking to us about acronyms. I sometimes feel like we're spelling things out around the children when we 20 21 use that many acronyms. But there are more curies than this, and 22 here's some facts about that. There are more curies 23 24 this proposal than were previously allowed.

There's only -- the license only allows for 5.6

1 million curies, but the GTCC waste would be about 160 million curies, more than 28 times the licensed amount 2 3 for a federal waste facility. There's a word for what's happened with 4 5 the WCS license. It's call mission creep, and I think that's a term that's primarily applied to our military 6 7 excursions, but it also applies to this. 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 it used to be. It's no longer a camel; it's some sort 11 of frightening mutant camel. 12 I guess my main concern here is I'm really 13 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 booties, which is what the original proposal to us 18 19 characterized the waste as. And I no longer recognize this camel. 20 MR. CAMERON: Okay. Thank you. Thank you 21 very much, Robert. 22 Lon, Lon Burnam, right back here. 23 24 MR. BURNAM: Good evening, members of the NRC staff, and Chip, thank you. I'm Lon Burnam. 25 Ι

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

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

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

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

1 coming to the realization that there is no 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, learned to expect disingenuous and misleading 6 7 comments from representatives of the industry. When the enabling legislation to establish 8 9 the WCS site was passed in 2003, there were explicit 10 promises that were made, they would never try to bring high-level waste to this site. 11 So now it seems there's an Orwellian 12 effort to rename and reclassify this highly dangerous 13 14 material, just as there was 30 years ago. Am I suspicious? Am I growing a little cynical in my old 15 16 age? Yes. 17 It was not until this year, in this legislative session, when they tried once again to 18 19 sneak their special interest legislation through, that they got caught with their hands in the cookie jar, 20 and were finally held accountable. 21 This session, their special 22 interest legislation did not even get to either the House floor 23 24 the Senate floor, and they were exposed

committee for the lies that they had told over the

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

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

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

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

extraordinarily bad idea.

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

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

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

(Applause.)

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

Marion. And I'll let Marion pronounce her

last name.

MS. MLOTOK: Thank you.

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

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

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

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

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

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

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

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

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

1 MR. CAMERON: Okay. Thank you very much, 2 Marion. Chip --3 MR. PESSIN: Chip. 4 MR. CAMERON: Dale --5 MR. PESSIN: Chip, could I make a few clarifying --6 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 appreciate these comments. 10 They're all very good comments. 11 WCS licensed by the 12 is not Nuclear Regulatory Commission. It is licensed by the State of 13 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. There's also been statements that we're 17 reclassifying GTCC waste. Under the Nuclear Waste 18 19 Policy Act, GTCC waste is not identified, and it is not part of the definition of high-level waste. Now, 20 we certainly take the regulatory position that the 21 default disposal paths for the GTCC waste is a deep 22 geologic repository, but we never took the position 23 24 that it cannot go anywhere else. The regulation goes all the way back to 25

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

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

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

MR. CAMERON: Okay. Thank you. And, 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

moment has become.

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

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

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

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

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

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

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

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

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

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

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

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 3 grandchildren and their grandchildren and their great-4 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 protect your legacy? Or is doing what's right and 8 9 saying, This waste needs to go where science says it needs to go, deep underground in a geologic formation 10 that will prevent it from getting wet and prevent it 11 from having any incursion into the atmosphere? 12 That's the charge we all have is to 13 14 protect our legacy and the generations that come after 15 Thank you very much for taking us. on this responsibility, and I hope it doesn't rest well on 16 your would to think about what might happen if you 17 don't have the courage to act. Thank you. 18 19 MR. CAMERON: Thank you. Thank you, Smitty. 20 We have a few more speakers that we're 21 going to get to here, but we're going to go to the 22 23 And, Marcus, is there someone who wants to 24 talk to us on the phone?

(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,

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

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

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

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

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

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

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

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

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

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

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

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

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

1 to the NRC right now? Yes. Interim Storage Partners, We all call it WCS, but Interim 2 The ISP. 3 Storage Partners. Right? 4 They are a applicant before the NRC. 5 So this rulemaking's got to be considered in that context. And, I guess, I will just finish by 6 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. 10 people want to make Texas the radioactive waste dumping ground of America. I won't let that happen." 11 A whole lot has changed in Texas in the 12 last couple of years, so we'll view it in that 13 14 context. 15 MR. CAMERON: Thank you. Thank you, Adrian. 16 17 And we're going to go to Al now, and then we're going back to Marcus, and hopefully Diane is on 18 19 the phone. But Al Bradley -- Bradley? 20 MR. BRADEN: Al Braden. MR. CAMERON: Braden. 21 I'm sorry. MR. BRADEN: I have the difficult position 22 of following Adrian and Smitty, so -- thank you. 23 24 Good evening, Commissioners. I'm Al Braden, an Austin citizen. I volunteer with Sierra 25

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

(General laughter.)

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

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

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

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

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

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

VOICE: Amen.

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

Specialists makes all their money accepting this waste, once the site is full and some sand is poured 2 3 over it and maybe a 500-year piece of cement, it will become the responsibility of the people of the United States and the people of Texas in particular to live with, remediate, and dig up at even greater cost and 6 put somewhere in the permanent storage 8 required. 9 Once that waste touches the soil of Texas, it will not leave, and we will have created a Chernobyl on the high plains that will contaminate our 11 land, our water, and our people for thousands of 12 So I, please, ask years, and I cannot accept that. 13 14 you, reject this application and reject the concept of 15 the rulemaking to relabel dangerous waste as something less than it truly is. Thank you very much. 16 (Applause.) MR. CAMERON: Thank you. Thank you, Al. 18 19 And, Marcus, is Diane on the phone? MARCUS: She is. 20 MR. CAMERON: Go ahead, Diane. 21 I'm Diane D'Arrigo 22 MS. D'ARRIGO: Hi. with Nuclear Information and Resource Service. 23 24 right. anyway -- (feedback from phone Well,

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 done that would allow for much, much higher radioactivity, lasting, 2 longer more intensely 3 concentrated, which means it's going to be dangerous 4 longer because it takes more half-life to decay. We're being asked to put 5 that into facilities and let the -- as it stands now, it's my 6 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 basis now, which I know that it has been -- I think it 11 has at the other sites -- then is what this rule would 12 do, one of the options for the rule would be to make 13 14 it generic? 15 It would be up to the dump operator? Ιt 16 would be up to the NRC with an agreement state in developing the allowance for higher-than-Class 17 limits going to these sites? How would it be 18 19 different than it is now, is one of my questions. And, Diane, could you ask 20 MR. CAMERON: your other question, and then we'll go to the NRC to 21 answer, and then we'll come back to speakers in the 22 room. But ask your other question while we have you. 23 24 MS. D'ARRIGO: The other is 500-year

institutional barrier, is that something that's now

1 being added? And where did you get the -- I thought that I heard on the 22nd 500 millirems as 2 3 allowable dose, when, in fact, 10 CFR 61.41 says it's 4 25-75-25. 5 MR. CAMERON: Okay. Thank you. Thank you, Diane, for joining us. And we're going to go to 6 7 Tim McCartin for first and second question, or however 8 you want to do that. Tim. Well, first I'll address 9 MR. McCARTIN: the 500 millirem dose and 25 millirem dose. 10 millirem dose is to an off-site individual, and that 11 has not changed. We're not doing anything different 12 for GTCC waste. 13 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 intruder to 500 millirem for the whole body, and 18 19 that's a 500 millirem dose in today's dosimetry. MS. D'ARRIGO: Where is that from? It was 20 in the 10 CFR 61? 21 Well, you won't see it in 22 MR. McCARTIN: 61 in terms of any of the requirements, because the 23 24 concentration limits were done to ensure you don't get

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. 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 Class C waste in Part 61, which is that 500 millirem 2 dose. 3 In addition, we've said Part 61 says you 4 5 could have, for Class C waste, a 500-year intruder barrier or depth below five meters. For greater-than-6 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. But at the heart of it, you still are 11 going to have to show the level of protection is the 12 same as the level of protection that's provided for 13 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? MR. McCARTIN: Can you refresh my memory. 18 19 MR. CAMERON: Diane, can you ask -- in a short way, can you ask what your first question was. 20 Well, we're in the middle 21 MS. D'ARRIGO: of the 500 millirem one. Why don't we just finish 22 with that. 23 Well, because I think we 24 MR. CAMERON: might be here until tomorrow to finish it. 25

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.

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

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

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

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

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

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

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

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

I'm concerned that the nuclear fuel that

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

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

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

There is a fiscal and regulatory 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

1 at a shallow depth. So I worked at two sites, and at one site, 2 concrete entombment container of 3 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 contamination in the soil required placing blasting 8 9 mats on the ground so that the drilling crew and the geologists would be protected from intercepting this 10 buried waste. Ιt is for this reason and this 11 I think it's a highly dangerous 12 experience that precedent to recharacterize this GTCC waste and bury 13 it at a shallow depth. 14 It places our soil, water and air at risk, 15 and we need to reevaluate this proposal, rescind it, 16 17 at the very minimum, come up with extremely stringent quidance for any disposal practices and make 18 19 the disposal practice and the containment structures appropriate for the radioactive half-life of the 20 materials buried therein. Thank you. 21 MR. CAMERON: Thank you very much, Sylvia. 22 (Applause.) 23 24 CAMERON: And, Marcus, do we have

anybody else on the phone that wants to talk?

1 MARCUS: No questions at this time. MR. CAMERON: Okay. Thank you, Marcus. 2 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? (No response.) 6 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 about that. 11 (General laughter.) 12 MR. McCARTIN: I'd be happy to. 13 14 MR. CAMERON: At any rate, I'm going to ask Trish Holahan, as the senior NRC official here, to 15 16 close out for us. Trish. 17 DR. HOLAHAN: Thank you, Chip. Thank you very much for all your comments. 18 It was a good 19 discussion. We heard them all, and several good points were raised, so it is something to consider as 20 we move forward. 21 Well, thank you very much for all 22 Okav. your comments. It was a lively discussion, and some 23 24 good points were made that gives us food for thought and consideration. So we'll take your comments. 25

1 MS. HADDEN: Will you accept those tonight's comments as formal comments, please? 2 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, so we'll take into consideration the comments that we 6 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. Ιf you provide them in writing, we'll --11 MS. Well, isn't 12 HADDEN: there а transcript? 13 14 DR. HOLAHAN: Yes. But -- there is a 15 transcript, but we'll review it. Isn't this typically done, 16 MS. HADDEN: 17 though? I've been in many, many NRC meetings where the transcript was used to create the formal comments, 18 19 and typically they are accepted at a meeting like this as formal comments. This is unusual not to do that. 20 DR. HOLAHAN: We've done other rulemakings 21 same way, but we'll take your comments into 22 consideration, and we'll review the transcript. 23 24 MR. CAMERON: And I think there's one other thing that Karen brought up before was will you, 25

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?

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

MS. MAUPIN: Normally seven days.

THE REPORTER: Okay. That sounds right.

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

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

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

1 So if you are vested in your comments, whatever you've written down, you can put your name 2 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 of oral comments is different than written comments. 11 It's part of a dialogue that's happening here, and the 12 way it comes across is often different. 13 14 valid, and I'm hoping that you'll accept both as 15 I'm going to ask for that again. formal comment. And would you please in this case send us 16 17 a copy of the full transcript so that we might take down what we said and send it to you, because what I 18 19 had written down, for example, is not what I said on the microphone. We're here with real people, and it 20 comes out differently. I'd be happy and I plan to 21 submit additional written comments as well, but the 22 two are different, and we'd like it all to count. 23 24 People came from all over the state that are here

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.
13 14	up on the docket and on our public website. MS. HADDEN: On ADAMS?
14	MS. HADDEN: On ADAMS?
14 15	MS. HADDEN: On ADAMS? MS. MAUPIN: No. The docket specifically
14 15 16	MS. HADDEN: On ADAMS? MS. MAUPIN: No. The docket specifically for this one that I had referenced earlier. We would
14 15 16 17	MS. HADDEN: On ADAMS? MS. MAUPIN: No. The docket specifically for this one that I had referenced earlier. We would put it up on the docket. I know a lot of people have
14 15 16 17	MS. HADDEN: On ADAMS? MS. MAUPIN: No. The docket specifically for this one that I had referenced earlier. We would put it up on the docket. I know a lot of people have problems pulling stuff up out of ADAMS, so there was
14 15 16 17 18	MS. HADDEN: On ADAMS? MS. MAUPIN: No. The docket specifically for this one that I had referenced earlier. We would put it up on the docket. I know a lot of people have problems pulling stuff up out of ADAMS, so there was a report we just made public. We put that up just
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14 15 16 17 18 19 20 21	MS. HADDEN: On ADAMS? MS. MAUPIN: No. The docket specifically for this one that I had referenced earlier. We would put it up on the docket. I know a lot of people have problems pulling stuff up out of ADAMS, so there was a report we just made public. We put that up just within the last week. We've put that up on the docket, so to make it easy for you to get to. So we

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	