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Environmental Impacts from the Proposed

MOX Fuel Fabrication Facility

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1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
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4	PUBLIC MEETING TO PROVIDE COMMENTS
5	ON THE NRC EVALUATION OF ENVIRONMENTAL
6	IMPACTS FROM THE PROPOSED MIXED OXIDE
7	FUEL FABRICATION FACILITY
8	+ + + +
9	TUESDAY, SEPTEMBER 17, 2002
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11	NORTH AUGUSTA, SOUTH CAROLINA
12	+ + + +
13	The Public meeting was held at A1A2 Conference
14	Room, North Augusta Community Center, North Augusta,
15	South Carolina, at 7:05 p.m., Francis (Chip) Cameron,
16	Facilitator, presiding.
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18	PRESENT:
19	FRANCIS (Chip) CAMERON, Facilitator
20	TIM HARRIS
21	DAVE BROWN
22	JOHN HULL
23	CHERYL TROTTIER
24	
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P-R-O-C-E-E-D-I-N-G-S

(7:05 p.m.)

MR. CAMERON: Good evening, everyone. My name is Chip Cameron, and I'm the Special Counsel for Public Liaison at the Nuclear Regulatory Commission, and I'd like to welcome you to our meeting tonight.

The topic for tonight is the Nuclear Regulatory Commission's environmental review on evaluating the environmental impacts from the proposed mixed oxide fuel fabrication facility. And I'm pleased to serve as your facilitator tonight, and in that role, I'm going to try to assist all of you in having a productive meeting tonight.

I usually find it helpful to tell you a little bit about the meeting process before we get into the substantive discussions. And I'd like to briefly address three items: The objectives of the meeting tonight; in other words, why is the NRC here tonight. Secondly, I'd like to talk about the format and ground rules for tonight's meeting. And last, I'd like to just go over the agenda briefly with you, to give you an idea about what's going to be happening.

In terms of objectives for the meeting, the NRC wants to make sure that you understand our process for evaluating whether to grant approval for

construction of a MOX, a mixed oxide facility. And we're going to specifically focus on the environmental review process that the NRC conducts to make its decision. And also we'll get some of the implications for the review process from some recent changes in the national MOX program.

The second objective is to listen to your comments and your advice on what the NRC should address in its environmental review process resulting from some of the changes you're going to hear about in the national MOX program. So that's - that's why we're here tonight.

And our format pretty much matches those two objectives. There is two parts to the meeting. In the first part, we're going to give you some information on our review process and give you the opportunity to ask some questions of the NRC staff on that process to make sure that you have the information and you know what - what we're doing.

The second part of the meeting is, we're going to ask those of you who - who wish to, to - to give us some more formal comments on the specific issues that the NRC staff will be presenting to you tonight.

In terms of that second part of the

meeting, there is a sign-up sheet at the registration table. If you want to talk tonight during that formal comment period, please sign up. It's not absolutely necessary that you do so. You may hear something that will prompt you to want to make a comment or a statement during that time period, and that's fine. We just like to know how many people want to talk, so that we can sort of control our time constructively. And of course, when we go out to you after the NRC presentations for question and answer, you know, obviously you don't have to sign up to raise a question or to even comment on something during that - those particular time periods.

In terms of ground rules, if you want to say something, please signal me and I will bring you this talking stick. And give us your name and affiliation, if appropriate. We are taking a transcript. Melanie is our stenographer tonight, and we will have a record of your comments so we can use that record to evaluate everything that we hear tonight.

I would ask that only one person at a time talk, not only so that Melanie can get a clean transcript, but also, more importantly, so that we can give our full attention to whomever has the floor at

the time. And please try to be concise. It's hard, I know, on these difficult issues, to - to be concise. But we want to make sure that everybody has a chance to talk tonight. So if you can - if you can try to be brief, that would be helpful in achieving that - that goal. When we get to the second part of the meeting where people are going to give us formal comment, I would ask you to limit that formal comment to five minutes.

Okay, in terms of agenda for tonight, we're going to start by giving you an overview of the NRC's environmental review process. And to do that for us, we have Mr. Tim Harris, who is right here. And Tim is the Project Manager for the environmental review on this proposed facility. He has that responsibility.

He's in the Environmental and Performance Assessment Branch at the NRC, and that branch is in our Office of Nuclear Materials Safety and Safeguards, usually called NMSS. You may hear that acronym. But that's what it stands for. And Tim's been with the NRC for nine years. He's been in various activities, uranium recovery, low level waste decommission, and now he's the Project Manager for the environmental review on this facility. He has a Bachelor's in Civil

Engineering.

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After Tim's done, we'll go out to you to make sure that there's no ambiguities about - about what we're - what we're doing, to answer your questions. And then we're going to go to Mr. Dave Brown, who is going to - to talk about the potential implications for the NRC environmental review process that may result from changes in the national MOX program. And he's going to go over that for you.

with the Special He's Projects Inspection Branch. Now, those are the people who evaluate safety aspects of the proposed MOX facility. the safety evaluation, the environmental And evaluation all come together as the basis for NRC's approval decision about whether to grant for construction of the facility. And they'll be talking more about that.

Dave is a health physicist. He's only been with the agency for - for two years. He was with the West Valley demonstration project for about five years before that. And he has a Master's in Health Physics from Clemson University, and a Bachelor's in - in Physics. After Dave is done, we'll again go out to you for question and answer.

And then Tim's going to come back up to

pose the two questions that the NRC is specifically looking for comment on. And that really focuses on what should be in the scope of our environmental review based on these changes to the national MOX program that you'll be - you'll be hearing about.

A final word just on - on relevance. There may be questions that you have, or comments, that don't squarely fit in a particular agenda item we're talking about. I'll keep track of those up here on what's, you know, traditionally called a "parking lot," so that we can come back and make sure we answer those at the - the most opportune time.

The second point on relevance is that we are here to talk about the NRC's responsibilities. And we know that there's a lot of issues concerned with the broader MOX program. If we can provide you with any brief information on that or guide you to someone to talk to about those broader concerns, we'll do that. But we really are going to focus on the NRC responsibilities tonight.

And I would just thank you all for being here to help us with this important decision. And I just wanted to introduce one more person. We do have one of our NRC managers here. And this - this is Cheryl Trottier, right here. She's the Branch Chief

1 for the Environmental and Performance Assessment 2 Branch, and that's where Cheryl and her people, and 3 specifically Tim, they're going to be doing the 4 environmental review and - and looking at these 5 environmental impacts. And Tim, let's get started with - with your presentation, and then we'll go back 6 7 out to you for questions. MR. HARRIS: Thanks, Chip. Can everybody 8 9 hear me? Good evening, and I'd like to welcome you 10 11 this meeting, as Chip said, on - on NRC's 12 environmental review for the proposed mixed oxide or MOX fuel fabrication facility. And I'd like to 13 14 personally thank you for taking your time to come out 15 this evening and participate, and we look forward to hearing from your - your comments. 16 17 This is one of a series of meetings that we've had on the environmental review, and - excuse me 18 19 a second. Next slide. 20 The presenters, as Chip said, will be Dave 21 and myself. We've got our phone numbers and Email 22 addresses on there, and I encourage you, if you have questions later, please feel free to call us or Email 23 24 us. Next slide.

As Chip said, the purpose of tonight's

meeting is to get your comments on how the changes in the surplus disposition program might affect NRC's environmental review for the proposed MOX project. And some of the agenda items I won't go over, since Chip has already discussed those.

Since this is a follow-on meeting, and we had scoping meetings here last year, some of the topics are only going to be discussed briefly. So if you have questions, please feel free to ask. And I think Betty gave you a copy of the feedback form. That's another important issue. We want to hear from you on how we're doing in the meetings. If there's something you like, tell us; if there's things that you didn't like, we want to hear those as well, so that we can hopefully do a better job next time.

Because of changes in the DOE program, we decided to delay issuance of our draft environmental impact statement, and we issued a Federal Register notice announcing that delay. And in that notice we asked two questions of the public. To start you thinking about the specific areas we're looking for I've included them early comments in on, I also think that they're included on presentation. the agenda, if you want to refer to that there.

The questions are:

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1 How should the NRC now 2 consider the immobilization of 3 plutonium no-action as а 4 alternative, since DOE has formally 5 canceled plans to construct that facility? 6 7 And whether or not there are any other alternatives that 8 weren't identified during scoping 9 that we should consider at this 10 11 time? 12 We - in the Federal Register notice, we requested written comments by August 30th, and we're 13 14 in the process of formally extending the comment 15 period to September 30th. So if you get home and and you think about some things and - please feel free 16 17 to write in and share your comments readily, if you don't express them here. 18 Congress, in the Defense Authorization Act 19 20 of 1999, gave NRC a role in the proposed MOX project. 21 Specifically, NRC has licensing authority over this 22 facility. So our role in the project is to make a 23 licensing decision regarding the proposed mixed oxide 24 project. The NRC is an independent government 25

agency. And our mission is to protect the public health and safety, and the environment, in commercial uses of radioactive material. Our role is different from the Department of Energy's. The Department of Energy's role in this project relates to implementing nuclear non-proliferation policy, including the disposition of surplus weapons plutonium. DOE has made changes in that program, and later in the meeting Dave will describe those for you.

One comment we got from the meeting, I think it was here last year, was it wasn't really clear what the decisions were or now the safety and environmental pieces fit together. So we've - we've put together a slide to hopefully make it a little understandable. And I think you got copies of the slides with your handouts.

NRC has two decisions to make relative to the MOX projects. And those decisions are included in the middle of the slide. They are: First, whether to construct - authorize construction of the facility; and the second is whether to authorize operation or license the proposed facility.

DCS submitted an environmental report in December of 2002 and - I'm sorry, December 2000, and a construction authorization request in February of

And, as I said, due to the changes in the DOE program, we've delayed our issuance. And following that, DCS has submitted a revised environmental report in July 2002. We are currently reviewing the revised environmental report and the construction authorization request, and will document those reviews in two documents. The NRC will prepare environmental impact statement. And I'll go over that - that process in just a second.

NRC will also prepare a safety evaluation report for the construction authorization request. And we had a public meeting here in North Augusta last month on that topic. The safety evaluation report is different from the environmental review. The safety evaluation report focuses on a safety assessment of the proposed design basis to determine if it meets NRC's requirements. The EIS considers the both constructing environmental impacts of operating the facility. Not only do we look at the proposed action, which is the proposed MOX facility, but we also look at alternatives to the proposed action.

NRC's final environmental impact statement and the safety evaluation report for the construction authorization request will be the basis for making the

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decision whether to construct the MOX facility, and we anticipate making that decision in September of 2003. I think that is where the - the top and the bottom come together. The safety review and the environmental review will serve as a basis for the construction authorization decision.

DCS plans to submit a license application to operate the proposed MOX facility in October of 2003. We will review the license application and prepare a second safety evaluation report. The safety evaluation report on the operating application and the final environmental impact statement, which is the same environmental impact statement that was used for the construction authorization request, would be the basis for making a decision on whether to allow DCS to operate the proposed facility.

There are also two opportunities for hearings. And John Hull, with our Office of General Counsel is here and can answer any questions you might have on the hearing process.

The purpose of the previous discussion was to put in context how the environmental report - environmental impact statement, excuse me, that we're talking about here tonight will be used in NRC's decision-making. To summarizes, a single EIS will be

used to support the decisions for both construction and licensing in the proposed MOX facility.

Now I'd like to briefly describe the environmental impact statement process. It's - the National Environmental Policy Act requires government agencies to prepare environmental impact statements for major federal projects such as the potential licensing of the proposed MOX facility. An EIS presents environmental impacts of a proposed action, along with reasonable alternatives to that proposed action. And one of the focuses of tonight's meeting is how the proposed action and alternatives have changed as a result of - of DOE's program changes. Note that the shaded areas are opportunities for public involvement, and we consider this a very important part of the NEPA process.

now, we've received DCS's environmental report and issued a notice of intent to prepare an environmental impact statement. And that was published in the Federal Register in March of 2001. We have completed the scoping process. We had three meetings. And I'll describe that in just a minute. And we're in the process of completing our environmental review, which includes requests for additional information. And

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this is additional information that the staff deems necessary in order to complete our review. And those requests are made public. We plan to issue the draft environmental impact statement for public comment in February of 2003, and there'll be a 45 day comment period.

We will hold public meetings on the draft environmental impact statement, and we plan to do that in March of 2003. And if you provided your full mailing address to Betty when you signed in, or had done that in previous meetings, we will mail you a copy at the end of February. And lastly, after we consider your comments, we'll revise the environmental impact statement and publish it as a final.

The purpose of scoping is to gather stakeholder input on alternatives that should be considered in an environmental impact statement, and to get resource areas - information on resource areas that might be impacted. As I said, we had public meetings here in North Augusta. We also held meetings in Savannah and Charlotte. We received - in addition to the comments we received at those meetings, we received written and Email comments. We summarized that in a scoping summary report which was published in August of 2001. And Betty has a few copies back at

the desk. If you don't have a copy and would like one, please see Betty.

I think the scoping process was very successful, and I think that can be largely attributed to the public's involvement. And I'd like to you thank you for staying involved. Of significance at tonight's meeting was the identification of a second no-action alternative by the public, and that was immobilization of surplus plutonium if the proposed MOX facility was not licensed. And specifically, we're here tonight to hear your views on how that how and whether that no-action alternative should be considered in draft environmental our statement, and whether or not there's any changes to the scope that should be made.

The next step in the process, just to summarize, I would plan to issue our draft in February of 2003; hold public meetings to get your input on the draft in March of 2003; consider your comments; finalize the document; and publish it in August of 2003.

And that concludes my presentation. Chip and I'd be happy to answer any questions people have on NRC's role, the NEPA process, environmental impact statement.

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1	MR. CAMERON: Good. Thank you very much,
2	Tim. You heard a lot of material there, and some of
3	you who are familiar with this may - may understand
4	the process. But those of you who are new may have
5	questions about this.
6	I just wanted to say that Tim mentioned
7	that we were going to be extending the comment period
8	on these two questions. Any comments that you give us
9	tonight, because we do have it on the transcript, will
10	carry the same weight as a written comment. But if
11	you do want to send in a written comment, you have
12	till
13	MR. HARRIS: September 30 th .
14	MR. CAMERON:September 30 th . And,
15	Tim, can you tell people
16	MR. HARRIS: And, actually
17	MR. CAMERON:where to send those?
18	MR. HARRIS:it's in the Federal
19	Register. It's Mike Lesar, NRC, Washington, D.C.,
20	20555. And I'm sure there's a probably a little more
21	to the address, but we'll
22	MR. CAMERON: I'm not sure everybody's -
23	everybody's getting it.
24	MR. HARRIS:we'll get that for you.
25	MR. CAMERON: We'll put this up on the -

1 the board, so that you know where to submit your 2 written comment. 3 MR. HARRIS: And - and as always, Chip, if we get comments after September 30th, we'll use those 4 5 to the extent that we can. Don't - I mean, somebody gets - if you wait until October 1st and you 6 7 haven't got your comment in, please send it in. 8 will us it. 9 Okay, thank you, Tim. MR. CAMERON: 10 Questions for Tim about the - the process, 11 Okay, let's go then - give us your name, process? 12 please. MR. POE: I'm Lee Poe. 13 Tim, I have a question. It seems to me, 14 15 as - as Duke and NRC are both preparing environmental documents, does the NRC document, when you - when you 16 17 finish it and put it out as you describe on this chart, is that saying that the NRC is satisfied that 18 19 the facility can be constructed safely and operated 20 after the construction safely? Is that what that's 21 really telling us? 22 Well, it's... MR. HARRIS: 23 MR. POE: What should we, as the public, 24 understand you are telling us? 25 MR. ...it's a yes HARRIS: and no

question. I think you made a good point that DCS prepares an environmental report, and that's providing information to the 3 data and NRC. The 4 environmental impact statement is NRC's document. We do confirmatory analysis, and we prepare a - an NRC document. We use data that - that DCS has provided, but it's - in many cases we do additional reviews. Your question of does determine if the facility is safe to operate, I think the answer to that is: No. As I tried to lay out in 11 the decision-making process, although the EIS will 12 address both operations and construction, there's two parts to the decision. One is the safety evaluation 13 14 report, and one is the EIS. So there - the safety 15 issue that you - that you specifically mentioned in No, that gets addressed by the 16 your question is: safety evaluation report. What... 18 MR. safety was the POE: МУ mУ environmental. MR. HARRIS: Environment - it addresses -21 the EIS, environmental impact statement, addresses 22 the... 23 Environmental. MR. POE: 24 HARRIS: ...acceptability of environmental impacts.

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1 MR. CAMERON: Okay. Is that clear how 2 that operates, Lee? Thank you. 3 MS. CARROLL: Tim, thanks for putting that 4 slide up. I want to - I want to tell you all some 5 stuff, now. And, by the way, I'm Glenn Carroll from Georgians Against Nuclear Energy, and we have legally 6 7 opposed constructing the MOX factory. And so this gets into a big issue for us. And because you're here 8 9 tonight, for instance, I want to embrace this, so that everybody knows what's going on, and so maybe we can 10 11 get it changed. 12 Now, we've got two parts to this. Duke Cogema Stone & Webster is asking for construction - I 13 14 guess this is the construction authorization request, 15 so it's this first piece. And then over here they're going to apply to handle plutonium. 16 17 And what we ran into is, we saw that there is absolutely no dealing at all with materials control 18 19 and accounting. And we're talking plutonium. 20 the whole mission here. We're going to safeguard 21 plutonium. That's why they said with the MOX. 22 So we said, "Okay, how are you going to 23 account for the plutonium?" 24 "Well, we don't have to tell you that 25 until we apply for a license to possess plutonium."

Right. Okay, now, why don't we go put your video camera up, and it's behind a pipe. What are you going to do then? You going to swim it into the pipe? Maybe the pipe's going to leak. We'll figure it out later.

So we have a problem with this. And the biggest problem we have is, look where they're finishing the environmental impact statement. Before the operating license is even submitted. So all the data---let's just use materials control and accounting as an example---that's contained in this, is not being considered in this EIS, and that doesn't serve the public.

Again, we raised this issue with the Commission. And, you know, I wish I could remember the language. It was very fine. But listen to what they said. "We're going to make up the rules as we go along." So, now, we plan to appeal this decision when the time is right, before they put a spade in the earth.

The deal is, is you've got your SER covering the whole thing. You've got a process here that will respond to this application. This is when they are going to put plutonium into the process. I mean, you know, cinder blocks and pipes, they don't

1	threaten us so much. It's when you put the plutonium
2	in there that you're threatened, and this gets created
3	absent this information. But, since the NRC makes the
4	rules up as they go, my question - my appeal is: Can
5	you revise the rules in this way? Thanks, Chip.
6	MR. CAMERON: Okay, let me - let me see
7	if
8	MR. HARRIS: Can I - can I answer a
9	different question, Chip?
10	MR. CAMERON: Well, I'm sure you'd like
11	to, but
12	MR. HARRIS: Well, I think I
13	MR. CAMERON: Let me make sure that I
14	understand, for everybody here, Glenn's question. And
15	obviously there were some other things besides a
16	question there. And also including Glenn's opinion
17	that the NRC is making the rules up as it goes along.
18	But I think
19	MS. CARROLL: Well, he can read those
20	three
21	MR. CAMERON:the first
22	MS. CARROLL: You're a lawyer. You know
23	what
24	MR. CAMERON:the first question, I
25	think, is: How, if at all, will material control and

1 accounting be considered in either the environmental 2 impact statement or in the safety review on the - the 3 SER? 4 MR. HARRIS: Well, let me answer that, and 5 then I'll answer the question that I think... Okay. 6 MR. CAMERON: 7 MR. HARRIS: ...Glenn was asking, or at 8 least the question I heard. And if it's different, 9 please let me know. 10 Materials control and accountability is, 11 in my mind, strictly a safety issue, and that's going 12 to be addressed in the safety evaluation report for That's the license application. where 13 that 14 information is presented, and that's when the NRC will 15 determine the safety of that information. Now, I think the other point that you 16 17 raised that affects me is your - DCS is providing other information after you've already issued your 18 19 environmental impact statement. And the answer to 20 that question is: No, we're not just going to go 21 forth blindly. We're going review that 22 information, and to see if it matches what's in the 23 environmental impact statement. And if it's not, then 24 the document will get revised or supplemented. 25 MR. CAMERON: Okay. And let's - let's...

1 MR. HARRIS: Which I think was... 2 MS. CARROLL: That sounds like a judgement 3 call. 4 MR. CAMERON: Let's - let's see if we 5 can... MS. CARROLL: I mean, what is the... 6 7 MR. CAMERON: Glenn, we need to get this 8 on the transcript. But let me see if we can get an 9 answer to the other question, which is: material control and accounting considered, if at all, 10 11 in the decision on the construction authorization. 12 Because I think that was your point, is that you don't like the idea that it's not going to be considered 13 14 until a decision on a potential operating license. 15 Dave, do you think you can talk to that And then we're going to go over to... 16 17 MR. BROWN: Good evening. I'm Dave Brown. I think you've characterized it correctly. 18 This most of the NRC's review of material control and 19 20 accounting would occur after we have received the 21 license application. If there were, as Tim pointed 22 out, environmental impacts associated with that, then 23 we would have the opportunity to review 24 information, and supplement or revise our EIS at that 25 time.

1 MR. CAMERON: And is there a reason why 2 material control and accounting does not need to be 3 looked at at the construction authorization stage? I 4 think that's the point Glenn is trying to make. 5 MR. BROWN: Yes. The reason goes to our regulation, which at this stage, when we're looking at 6 7 authorizing construction, we're evaluating those 8 things which are what we call structure, systems, and 9 components in the plant that protect against accidents or an act - you know, like earthquakes and floods, 10 11 that sort of thing. That - those things are the focus 12 of our review at the construction authorization stage, not material control and accounting. 13 14 MR. CAMERON: Okay. And, Glenn will be 15 back. MS. CARROLL: Well, just two more things 16 17 to wrap this up. MR. CAMERON: Pardon me? 18 19 MS. CARROLL: I'd like to have two quick 20 things to wrap this up. First of all, we had a 21 contention about materials control and accounting, so 22 it's an open question that we have a chance to get 23 incorporated. 24 But I'm concerned that, you know, your EIS 25 period officially closes, and so it sounds like it's

1	discretionary, subjective, if the NRC feels the need
2	to include it in the EIS, I mean, if during the public
3	mechanism, to compel you to do an EIS. But you can
4	answer that later. I've had my time.
5	MR. CAMERON: Tim, do you want to say
6	anything about that?
7	MR. HARRIS: Well, I don't think there's
8	a formal process. But, as always, we're open to
9	public comment. So I - I don't think the NRC closes
10	its ears after we publish the final environmental
11	impact statement.
12	MR. CAMERON: Okay. And we may get you
13	some more clarification on that later on tonight. But
14	I think Tim has basically hit the bottom line.
15	Yes, sir?
16	MR. CHAPUT: My name is Ernie Chaput with
17	the Economic Development Partnership in Aiken.
18	I hope this is not a redundant question,
19	but maybe you just circle this thing. We're in an
20	environmental impact statement process right now; is
21	that correct?
22	MR. HARRIS: Correct.
23	MR. CHAPUT: The release of plutonium into
24	the environment is an item that will be considered in

1	that correct?
2	MR. HARRIS: Plutonium and other radio
3	nuclides; yes, sir.
4	MR. CHAPUT: Okay. So to the extent that
5	plutonium has the potential to be released into the
6	environment, it will be considered as part of this
7	EIS?
8	MR. HARRIS: Correct.
9	MR. CHAPUT: And so that - that's the
10	appropriate consideration for - under the National
11	Environmental Policy Act, which I understand deals
12	with impacts on the environment - to the environmental
13	by federal actions?
14	MR. HARRIS: Correct.
15	MR. CHAPUT: Okay.
16	MR. HARRIS: I must have done a good job
17	explaining that, Ernie.
18	MR. CHAPUT: Thank you very much.
19	MR. CAMERON: Thanks, Ernie.
20	And I think we're going to go back over
21	here, and then over there, and then we'll come back up
22	front. All right.
23	MR. ROGERS: You already might have
24	answered it.
25	MR. CAMERON: Tell us your name.

1	MR. ROGERS: My name's Harry Rogers, and
2	I'm with the Carolina Peace Resource Center, and also
3	with the Alliance for Nuclear Accountability, and work
4	at and operate a reactor at D.C. Summer. And I - I
5	think Glenn - she answered my question. Is the access
6	- access to the public to the information to provide
7	a comment. There isn't a formal process, and a
8	decision is the NRC's decision, is this important
9	information to consider or not to consider. And we
10	don't have - we don't have a mechanism to compel you
11	to consider the information. And I hope that she's
12	successful with the contingent.
13	MR. HARRIS: Chip, can I ask John to
14	comment on that, because I think there - there may be
15	a legal process, and I don't want to misspeak any
16	legalities, if that's correct.
17	MR. CAMERON: Let's make sure that - let's
18	make sure that we're asking John to - to comment on.
19	And, John, is it clear what - what the question is?
20	MR. HULL: Sometimes it is a bit
21	confusing. There is - there is - I always like to
22	describe it as a parallel process. Right now we're
23	talking about the technical, environmental, and safety
24	reviews that the NRC is conducting in regard to the
25	proposed facility.

1	But there's also a parallel legal process
2	or legal hearing that's now going on, and Glenn
3	Carroll is the representative of one of the parties in
4	that legal proceeding. And she is - she's raising
5	some issues which are now before the Licensing Board,
6	which is considering these legal issues. And that
7	process is far from finished. And it remains to be
8	seen whether legally the board will determine whether
9	or not these contentions are valid or not. But that
10	still remains to be decided.
11	MR. HARRIS: But - but isn't it true,
12	though, John, that if there was - after the EIS is
13	issued, if there were EIS contentions, that would be
14	one means of formally submitting them to the NRC?
15	MR. HULL: Well, there - there are
16	cases
17	MR. CAMERON: John, I'm going to have to
18	get you on the transcript, please.
19	MR. HULL: There are cases where agencies,
20	including the NRC, has chosen to supplement an
21	environmental impact statement. But that decision is
22	way down the road at this point, and a lot remains to
23	be determined whether that will be something the NRC
24	will do or not.
25	MR. CAMERON: Okay, let me see if I can

sort of summarize this. That's - that's fine. So that everybody understands what was said.

environmental review done, as Chip talked about. There's a safety review done. This is on the construction authorization request. Overlaying that normal two-part process is, in this case, what's called a hearing. That's an adjudicatory hearing where people can raise issues before an Atomic Safety and Licensing Board, as Glenn Carroll and her organization is doing.

Decisions in that adjudicatory process can affect the normal environmental and safety review that the NRC is doing, so that they can also - always influence that. That's playing out on a parallel course and we'll see what happens with that. Keep in mind that if the construction authorization request was granted by the NRC after the hearing and the safety and environmental review process, then there could be an application for operation of the facility, and you would have the same process going on; a safety evaluation, possibility of the adjudicatory hearing. But, as Tim pointed out, the NRC final environmental impact statement would be the impact statement that would also be used to quide the NRC's decision on the

1	operation decision.
2	MR. HARRIS: Correct.
3	MR. CAMERON: Correct? Okay.
4	Yes, ma'am?
5	MS. GARCIA: Hi. My name is Karen Garcia,
6	a resident of Aiken, South Carolina.
7	As the licensee of the MOX facility, is it
8	true that you, not DOE, are the agency that will
9	enforce federal safety and security requirements
10	during construction and operation? Basically, is it
11	correct that you insure the facility meets all federal
12	regulations?
13	MR. CAMERON: And, Tim, I know you're
14	going to correct the one - the one statement.
15	MR. HARRIS: Yeah, the - the - I think the
16	statement was
17	MR. CAMERON: NRC is the licensee.
18	MR. HARRIS: Licensee.
19	MR. CAMERON: Is that what you said?
20	MS. GARCIA: Right, is the licensee of the
21	MOX facility.
22	MR. HARRIS: The - the licensee, or in
23	this case the applicant is Duke Cogema Stone &
24	Webster. We're the - we're the regulatory
25	organization.

1	I think most of what you said is correct.
2	I'm not sure if it's 100% of all federal laws. But
3	the NRC has regulatory authority over this facility to
4	insure safety, which I - which I think was the point
5	you were trying to make.
6	MR. CAMERON: And, for example,
7	Occupational Safety and Health regulations would not
8	be
9	MR. HARRIS: Right. I mean, I didn't - I
10	didn't want to say that all federal regulations, but
11	- but I think the point is that the NRC has
12	responsibility for the safety of the facility.
13	MR. CAMERON: So does that - does that
14	answer your question?
15	All right, I think, Lee, you had another
16	- did you have a question?
17	MR. POE: Yeah, Lee Poe again. I'm used
18	to seeing, following an EIS, a record of decision
19	saying that the federal agency has adopted the
20	following sort of thing. I see nothing like that up
21	there. The rest of this parallel environmental and
22	safety is - is typical of what goes on in - in all of
23	the federal actions that I've seen take place. And
24	I'm sure that - and I'm really aiding in a second
25	question. I'm sure that if during the NRC review of

1	the operating SER, the public raised significant
2	emphasis, issues, I would suspect that you would
3	respond to those issues.
4	But, you know, help me with both of those
5	questions. The first one is the lack of an ROD,
6	record of decision. And the second one - and the
7	second part is opportunity of the public to have input
8	into the final SER.
9	MR. HARRIS: As far as the record of
LO	decisions go, that's - you see that a lot in federal
11	agencies, issuing records of decisions. For us it's
12	more of issuing a license, or in this - in the prior
13	case, issuing the letter that would authorize
14	construction would be considered the ROD.
15	MR. CAMERON: So that that constitutes our
16	approval.
L7	MR. HARRIS: Yeah. We just call it a
18	different document.
L9	MR. CAMERON: Okay. Thanks, Tim.
20	The question - the last question.
21	MR. HARRIS: Oh, and the public - I'm
22	sorry.
23	MR. CAMERON: Public input to the SER on
24	the operation of the facility.
25	MR. HARRIS: And I'm going to let Dave

answer that, because...

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MR. CAMERON: And, Dave, you ready? All right.

MR. BROWN: The - if you may notice, of course, on the bottom of the slide here under "Safety Reviews, " there's not a corresponding role for public input. But at any time during our licensing evaluation. we would welcome public comments. Especially if you see something that you feel are safety concerns you'd like to see addressed, we would welcome that. I guess it's just to point out that the formal scoping process, for example, in the safety review, like you do in the environmental review, we would certainly welcome your comments.

MR. CAMERON: Usually - and I'll just add this because we were just down here on the draft safety evaluation before. Usually the NRC does not, as they do for the environmental impact statement, they do not request general comments on the draft safety evaluation report. As we - we did, though, with this draft safety evaluation report. To be consistent, the NRC may do the same thing with that.

But typically, the public can attend meetings between the licensee - license applicant and the NRC staff on those safety issues. They can become

1	a party in the adjudicatory proceeding. Or if there
2	are public meetings, they can raise those - those
3	comments then.
4	Yes, sir?
5	UNIDENTIFIED SPEAKER: How does
6	(inaudible)?
7	MR. HARRIS: I didn't hear that, Chip.
8	COURT REPORTER: I can't hear you.
9	MR. CAMERON: Okay, the question is, is
10	that, first of all, are there - will there be - are
11	there relevant memorandum of understandings or
12	interagency agreements between NRC and DOE on this
13	issue; and if there are, will they be made public?
14	Does that capture it?
15	UNIDENTIFIED SPEAKER: Sure.
16	MR. CAMERON: All right. Tim?
17	MR. HARRIS: The only MOU or memorandum of
18	understanding that I'm aware of is one that relates to
19	cultural - cultural artifacts. Basically with the
20	SHPO, state-to-state and historic preservation officer
21	of South Carolina. That's the only one I'm - I'm
22	aware of.
23	MR. CAMERON: But that's not with the
24	Department of Energy?
25	MR. HARRIS: It - it's a - don't quote me,

1	but I think it's an agreement between NRC, DOE, and
2	the State of South Carolina.
3	MR. CAMERON: Okay.
4	MR. HULL: Chip?
5	MR. CAMERON: Go ahead, John, for
6	clarification on that.
7	MR. HULL: All of the MOUs are public
8	documents. There are no secret MOUs.
9	MR. CAMERON: Thanks, John.
10	Let's go to this gentleman right here.
11	MR. RUDOLPH: Could you explain
12	MR. CAMERON: Could you just give us your
13	name.
14	MR. RUDOLPH: Oh, I'm Jerry Rudolph from
15	Columbia.
16	Could you explain how you make the
17	decision after you get the environmental impact
18	statement. I know that whatever you do will increase
19	the risk some. It's not a zero increase in the risk
20	to the people here. Can you just determine - could
21	you tell me how you decide how much risk you're
22	willing to put the public - that you - that is
23	acceptable for public risk? First question.
24	And the second one is: Could you tell me
25	how you have incorporated - as people are already

exposed to it, and I understand that Aiken has the highest cancer rate in South Carolina. Is the existing risk that people are exposed to taken into consideration when you add the additional risk with this - this facility?

MR. CAMERON: Okay, thank you. And I think that goes to the question of our existing regulations and what - what has to be shown to comply with those. And also - first question is: How will the findings of the environmental impact statement be used with the safety evaluation to get to the decision?

MR. HARRIS: Well, I think it's a multipart question. And I'll answer part, and I'll ask Cheryl Trottier, the Branch Chief, to answer the other part. She's a health physicist and can certainly talk more about radiation risk more than I can.

One of your questions was: Are the environmental impact statements of what's already here at the SRS site considered? And yes, they are, in the cumulative impact section. Cumulative impacts looks at the current state and the increment---in this case, the proposed MOX facility---what that would do to different resource areas, like air quality, water quality, in addition, you know, as - as a plus with

1 what's already being generated by SRS and other 2 facilities. So the answer to that is: 3 consider what's already here and being generated. 4 And I'll let Cheryl talk to the - the risk 5 piece. MR. CAMERON: Cheryl, I think that, you 6 7 know, the question - one of the questions concerns compliance with existing regulations, that - that 8 9 whole piece. And I think we're still expanding a little bit in terms of answering how the findings of 10 11 the environmental impact statement are fed into the 12 decision-making process. It may not be easy to answer that without the context of the specific findings. 13 14 But, Cheryl, you want to talk to this? 15 MS. TROTTIER: I will speak to the issue of NRC's role in evaluating radiation risk. 16 17 From the perspective of how we license all activities, regardless of whether it's a doctor 18 19 delivering a dose to a patient or whatever it is. 20 have standards in our regulations on public and 21 occupational dose. We use those standards. The standards are set on the basis of recommendations that 22 come from international and national authorities on 23 24 what is considered acceptable levels.

The current values that we use---and we

use these dose terms because they're the terms that are in our regulation---which is 100 millirem per year. Now, actually, no facility operates at those levels, because there are other factors that we require. We require a process which we call "as low as reasonably achievable," so that their operations must be in - in a range of much lower than that value. We have specific source limits on air emissions that they must also meet.

So, in reality, there is almost no facility - possibly if you were exposed to a teletherapy source by standing on the wall on the other side of the unit all day long, you might approach the 100 millirem. But, in general, most of our operations are much lower.

Those are the values that we use in making all licensing decisions. We always consider the recommendations of these authorities in setting our limits, and those are the limits that we have in our regulations today.

MR. CAMERON: Okay. Basically, you have - we'll get - get to your follow-up, and we'll go to you. And, basically, the NRC has a set of regulations to protect public health and safety that are based on research findings. And the - any license applicant,

1 including the applicant for this construction 2 authorization, has to meet those regulations in order 3 for construction authorization to be granted. 4 Tim, do you want to say anything more 5 about how the environmental impact statement ties in? MR. HARRIS: Well, I think part - part of 6 7 your question was: How is that used in decision-8 making? And the environmental impact statement 9 presents the analyses - staff's analyses of the 10 environmental impact statements of the proposed 11 action, and alternatives to proposed action. And 12 that's provided to an NRC decision-maker, in addition to the safety evaluation report. And we, at the NRC, 13 14 make a decision. I don't - I think part of your 15 question was - was what's - if there is thresholds or things like that, and I don't think I can quantify 16 17 that. 18 CAMERON: Okay, let's give you a MR. 19 follow-up. 20 MR. RUDOLPH: talking He's about 21 standards. I have a couple of questions on follow-up. 22 The - these standards that you're following are based 23 on the EIS that was done before the changes that were 24 made by the - the elimination of the immobilization. those - how will the differences 25 will How

considered? That was one question. The differences in the risk that's imposed by - by bringing in the - the trash plutonium that they're bringing from - that was not included in the original plan, how is that being considered in these standards, whether they'll be in the standards that you mentioned?

And the second one is: Are the - are - when you consider the radiation that people are being exposed to, are you considering the release of some radioactivity into the air, into the - into the groundwater, that it's - that it's possible? And are you using the history of the Department of Energy in other places where they have exposed the public to polluted groundwater unintentionally. Is that history being used in the evaluation of - of the licensing in this case?

MR. CAMERON: Okay, there's a...

MR. HARRIS: Well, that's...

MR. CAMERON: ...there is a whole lot of questions there. The first one is - and I think "the standards" might be the wrong term to be using in the context of the - what we look at in terms of environmental impacts. But the basis for being here tonight, you know, when we get to Dave Brown, we're going to look at the implications for the

1 environmental impact statement from changes to the DOE 2 And those will be evaluated. program. 3 MR. HARRIS: But he asked a different -4 slightly different question. He - I think what he Are you going to consider what they 5 asked was: presented before as one option, and what 6 7 presented now as a second option? And I think the 8 answer to that question is: No. It would be our 9 belief that they - they've revised their application and submitted a new environmental report that we have 10 11 to consider on its own merits. 12 But the other question, MR. RUDOLPH: about the history of... 13 14 MR. HARRIS: The history, we do - we do 15 look at DOE data. I'm not sure if we look at the specific examples that you gave, but we do look at 16 17 impacts to groundwater, air. MR. RUDOLPH: But what is... 18 19 MR. CAMERON: We need to - we need to -20 please, if you could just - if you do want to say 21 something, let's use the mic so we can get it on the 22 transcript. And let's - we've got to close this out so that we can go to Dave Brown. And I know there's 23 a number of questions; okay? So we're going to get to 24 25 five or six of you. But let's - let's try to close

1	this out.
2	MR. RUDOLPH: The main thing I was
3	pointing out on the history was here we actually have
4	something in the groundwater, and it's from the water
5	of the liquid waste. And I just - I understand MOX
6	also has liquid waste.
7	MR. HARRIS: Correct.
8	MR. RUDOLPH: The history that the
9	Department of Energy has in the safety of the
10	groundwater, is that history being - are the other
11	locations, the other sites, is that history being
12	considered in this application?
13	MR. HARRIS: Yes, we are - we are looking
14	at the existing groundwater contamination at the SRS
15	and what potential impacts the MOX facility might have
16	on the groundwater.
17	MR. CAMERON: Does that answer your
18	question? I don't - I - we're not - if - I think the
19	question is, is that if - if the Department of Energy
20	had a bad track record somewhere else in terms of
21	monitoring or releases, does that have any relevance
22	to the decision that we're making here. That's the
23	question; okay? And that we
24	MR. HARRIS: And I think the answer is

that that's outside the scope of what we're doing here

1 relative to the proposed facility. 2 MR. CAMERON: All right, thank you. 3 RUDOLPH: So the answer is: No, 4 you're not considering that? 5 MR. CAMERON: No. That's - that's 6 correct. 7 Yes, sir? 8 MR. TURNIPSEED: Му name is Tom 9 Turnipseed, and I'm from Columbia. 10 You know, I'm very naive about this, and 11 I think it's kind of new turf that we're getting into. 12 It appears, from what you guys are saying, and when I went to the meeting earlier two or three weeks ago, 13 14 whatever it was, and then I read in the paper about 15 how this experimental situation with the MOX process is going to be conducted over in Belgium, and I'm just 16 17 wondering how much the NRC will be monitoring the process where the experiment in Belgium, which I 18 19 understand has great opposition over there, and then 20 they're going to bring stuff back so we can try it out 21 up at Duke's reactors up in Catawba and McGuire. 22 Do you guys - do you follow what's going 23 Do you have - I know you don't have on over there? 24 jurisdiction. It's not in the scope of the little

bureaucratic thing you're doing here.

25

But I keep

1 reading about this in the papers, and I'm 2 wondering are you guys following that? Are you - are you looking at the European experience? 3 This is an 4 international thing, if you read about it. 5 conceived as an international program. Are you involved - the NRC involved with what's going to 6 7 happen in Belgium? Could you tell us about that? 8 MR. HARRIS: Yes, sir. I think you're 9 asking - the things that they're proposing to do in 10 Belgium are construct what they call lead test 11 assemblies. 12 What is that? MR. TURNIPSEED: MR. HARRIS: These are fuel rods that are 13 14 made of the mixed oxide and uranium blend, which would 15 be similar to that that would be produced by the proposed MOX oxide fuel fabrication facility. They're 16 17 going to construct those in Belgium and then put them in the reactor, burn them in a Catawba reactor. 18 19 then they're going to take those and analyze it to see 20 the fuel behavior. And yes, the NRC is - is involved 21 in tracking all this. We would - or the office of... 22 MR. CAMERON: Thank you. We'll come right 23 back up to the front row here. Someone has been 24 waiting to ask a question back here, so we'll go back.

MS. FRAZIER: Tina Frazier, Citizens for

1	Nuclear Technology Awareness.
2	MR. CAMERON: Can everybody
3	MR. HARRIS: No, we can't hear her, Chip.
4	MS. FRAZIER: I'm sorry. Tina Frazier of
5	Citizens for Nuclear Technology Awareness. Forgive
6	me. I'm not sure this is a question as it is more a
7	clarification of a statement that's been made now at
8	a couple of hearings, that Aiken County has the
9	highest cancer rate in the state. I do have DHEC
10	reports. We did look into this. And on a scale of 1
11	to 47, of the 47 counties, 1 being the highest
12	incidents and 47 being the lowest, we are #41. We are
13	among the lowest on a cancer rate.
14	MR. CAMERON: If you'd just clarify for
15	people who DHEC is. DHEC is
16	MS. FRAZIER: DHEC is environmental - I'm
17	sorry. (Inaudible) environmental health.
18	MR. HARRIS: Environmental Control?
19	MS. FRAZIER: It's Health and
20	Environmental Control. And I take it out of
21	MR. CAMERON: Okay, the state - the State
22	of South Carolina?
23	MS. FRAZIER: State of South Carolina;
24	yes.
25	MR. CAMERON: And when you talk about

1	"this county," you're talking about Aiken County?
2	MS. FRAZIER: Aiken County. Yes, Aiken
3	County.
4	MR. CAMERON: All right. All right, thank
5	you. Let's
6	MR. HARRIS: You know, Chip, there's -
7	there's some questions, and we'll be here after the
8	meeting if people have more questions, if we don't
9	have time to answer it now.
10	MR. CAMERON: Yeah, we'll definitely do
11	that. Let's see if we can clear up some of these
12	outstanding, and then we'll go to Dave.
13	Yes?
14	MS. PAUL: Bobbie Paul of Atlanta,
15	Georgia.
16	I had a question about the approval for
17	what you call the "end process" here, the NRC
18	decision. I'm unaware. Are we - is there a vote
19	taken by this NRC panel? How many people are we
20	talking about? I have no idea if we're talking about
21	a roomful of five people. And how do you interact
22	with people from the DOE? Are we talking about 20
23	people and people from Duke Cogema? If you could help
24	visualize this for me, I'd appreciate it. Thank you.
25	MP HARRIS: I'll try I think there's

1 actually a poster in the back that shows the five 2 And it is... commissioners. 3 MS. PAUL: Of the NRC? 4 MR. HARRIS: Of the NRC. 5 MR. CAMERON: Yes, five NRC commissioners. MR. HARRIS: And then they're appointed by 6 7 the President, confirmed by the Senate. So ultimately 8 decision is made by the Commission, 9 commissioners. And, as we've talked about tonight, there's the - the environmental portion of 10 11 decision-making; the safety portion; and also the 12 adjudicatory hearing portion that feed into that decision by the Commission. 13 14 As far as numbers of people at DOE and 15 others, I'm - I'm not sure how to answer that. You know, we interface with several people, ten, 20 people 16 17 I personally interface with two people at at DCS. DOE, but Dave probably interfaces with ten or 20. I 18 19 don't know how to... 20 MR. CAMERON: Maybe - maybe it's not the 21 numbers, but the relationship between DCS and - and 22 DOE, and how that relates to the NRC. I mean, that 23 should be cleared up. Is that - is that what you're trying to envision? 24 MS. PAUL: Uh-huh. And at the end there's 25

1 a final - there's a final vote taken by this panel of 2 five, and that's the ultimate decision-maker; is that 3 right? 4 MR. HARRIS: The Commission. 5 MS. PAUL: The Commission. MR. HARRIS: Yeah. I guess, if there's a 6 7 hierarchy, we're - NRC's a regulatory agency; Duke Cogema Stone & Webster is the applicant to the Nuclear 8 9 Regulatory Commission. They are a contractor of the Department of Energy, so that's how the Department of 10 11 Energy - but we - what we do, I think it's a straight 12 Typically we interface through Duke Cogema line. Stone & Webster. They are the applicant. 13 14 MR. CAMERON: And the most important thing 15 is that it's not - we're an independent regulatory agency; okay? Even though DCS is a contractor to the 16 17 Department of Energy, another agency of the federal government, we're an independent regulatory body. 18 19 is no connection because of the We're both agencies of the federal 20 government. 21 government. 22 MR. HARRIS: Yeah. The interactions are 23 more information, you know. 24 MS. PAUL: But the money for all of it 25 comes from us? The money to support these efforts

1 comes from the federal government; correct? 2 MR. HARRIS: Correct. MR. CAMERON: Okay, how many - let's see, 3 4 how many people have a question that have not talked 5 already? Okay. Let's do - we're going to do three 6 people who haven't had a chance to speak, and if we 7 time, we'll circle back for - for 8 questions. But let's get Dave on. You may have less 9 questions on his. And let's go over here to this 10 So we're going to take three more 11 questions, we're going to put Dave Brown on and open 12 it up for questions. Yes, sir? 13 Your name? MR. WILLOUGHBY: William Willoughby from 14 15 Columbia, South Carolina. It's more - it's more a comment than a question. And that is, I think that it 16 17 would have been clearer, from some of the questions I have heard tonight, if you had included in this chart, 18 19 in particular, the operation and the interfacing with 20 the - with the NRC Licensing Board, to show how they 21 fit into the process. I mean, that would have helped 22 on some of the decision-making questions. Thank you. 23 MR. HARRIS: Thank you. 24 MR. CAMERON: Thank you for that. 25 MR. HARRIS: We'll take that as feedback

1 for - for next time. 2 MR. CAMERON: Okay, we're going to go over 3 here. 4 UNIDENTIFIED SPEAKER: What if Duke Cogema 5 Stone & Webster and the Department of Energy don't reach agreement on the Option A of the MOX fuel 6 7 contract for construction? What happens if there's no 8 contract? There's no contract right now beyond design 9 licensing. Do you - will you authorize 10 construction if, by some chance or some reason, DCS 11 and DOE do not reach agreement? 12 I'm not sure that's a -MR. HARRIS: that's a question that's within the scope of ... 13 14 MR. CAMERON: You're saying that there may 15 not be - you're raising a question about whether there would be a legal entity to be a license applicant? 16 17 UNIDENTIFIED SPEAKER: Yes. Because Duke Power has an exit clause in their contract and they 18 19 can withdraw any time - all their reactors at any time 20 from the program, which would leave no reactors, at 21 least temporarily. So that's one reason why it might 22 not - the contract may not be renewed, and no - might be they decide to use this plant for metal preparation 23 as part of their production complex. 24 MR. CAMERON: Let me ask John - John Hull. 25

I think this is a - this is definitely a legal question that goes to the viability of whoever holds, for example, the construction authorization. Do you get the drift of this long question?

MR. HULL: Well, yeah, there are a number of contingencies that have to occur before any MOX fabrication facility would either be built operated. The Department of Energy, as evidenced by their recent change in plans, can have an impact on If Duke or - I guess Duke is the what we're doing. only part - NRC licensee right now that's in the program, in theory. But if they pulled out, then obviously that would have a big impact on things. But, you know, we're speculating at this point. As far as I know, Duke has no plans to pull out of their agreement to eventually burn MOX fuel. that would only happen if the NRC licenses the - the operation of the facility. So, you know, any number of things could happen in the future, but right now we have to plan as if things are going to go according to the current plan.

MR. CAMERON: Thank you.

And let's go to our final question with this gentleman right here. Final question for this particular part of the meeting.

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1	Yes, sir?
2	MR. BLANCETT: I'm Allen Blancett,
3	recently retired, a resident of Aiken. I hear in
4	these meetings lots of concerns about dose to the
5	public and so forth. I've got a couple of
6	grandchildren in the area, and it's important to me
7	The revised environmental report says that
8	it goes to the - the maximum dose to the offsite
9	individual would be no more than two microrems.
10	That's 0.000002 rems. And that's 1/50,000 of the
11	federal limit. Now, if that number is valid, I'm not
12	concerned. That's no impact to the public.
13	My question is: Will NRC verify that
14	number that goes into the final documents?
15	MR. HARRIS: Yes. We will do our separate
16	analysis.
17	MR. CAMERON: Thank you, sir.
18	I know there were several other questions,
19	and let's see if we can pick those up after we're done
20	with this next presentation. Because we want to make
21	sure we get all of this material on to you.
22	Dave Brown, NRC staff, is going to talk
23	about the changes to the DOE program, and potential
24	implications for the NRC environmental review. Dave,

go ahead. And then we'll go - we'll go back out to

you for questions.

MR. BROWN: Thanks, Chip. Can everyone hear me okay? Good.

Thank you all. I'd like to summarize the changes that DOE and DCS have made to the surplus plutonium disposition program and to the MOX facility. I'll also discuss the environmental impacts associated with these changes that DCS presented in their environmental report in July, their revised environmental report.

The first change I'll discuss is the cancellation of the plutonium immobilization plant. The PIP, or the plutonium immobilization plant, had been part of a hybrid disposition approach to immobilize some of the plutonium, and then turn the rest into MOX fuel. DOE canceled the plutonium immobilization plant due to budgetary constraints. And I'll describe the impacts in just a moment.

On the previous slide, the - the second item is the proposal to build a waste solidification building. And this would be a new building that would process liquid waste from the MOX facility and the MOX project, in general. And I'll also describe this building and its impacts in a few minutes.

The direct result of canceling the

plutonium immobilization plant is that there were 8.4 metric tons of plutonium that would have gone to that plant, that now need to be dispositioned differently. And what I want to make clear here is the current proposal is that, of that 8.4, 6.4 metric tons would come to the MOX facility. That leaves two metric tons that would have to have another disposition pathway. The NRC at this point doesn't know what that is. That's a decision for the DOE.

To accommodate the 6.4 metric tons of what we call alternate feedstock now, material that would have gone to immobilization, but now coming - proposed to go to the MOX facility, that DCS would have to make changes to the plant to accommodate this material. And I've also noted that previously the amount of material that DCS had proposed to process was 33 metric tons, and that total is now 34 metric tons. Next slide.

DCS has also informed the NRC that DOE plans to build a waste solidification building. This DOE intent here is that it would address public concerns about using the high level waste storage tanks on the Savannah River Site to manage liquid waste from the MOX facility and from the pit disassembly and conversion facility. The new waste

solidification building would be sited on the pit disassembly and conversion facility site. We've included in the handout a map of that general area that shows the location of the - the MOX facility, the pit disassembly and conversion facility, and the new proposed waste solidification building.

The waste solidification building would have the capacity to store liquid waste from both MOX and the pit disassembly and conversion facility. High alpha activity waste, which was waste associated that's generated in the MOX facility, would go to the solidification waste plant, and laboratory concentrated liquids from the pit disassembly and conversion facility, those would come and be handled as transuranic waste, solidified, and the proposal is to ship that waste to the waste isolation pilot plant in New Mexico. The MOX facility also would produce a stripped uranium waste, which is another waste associated with preparing the plutonium for mixed oxide fuel fabrication.

The pit disassembly and conversion facility would also generate laboratory liquids. Those two waste streams would be handled as low level waste. The low level waste would - it's proposed to be disposed of at the Savannah River Site B Area or

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another permanent, low level waste site.

The - the changes to the environmental impacts associated with those facility changes include an increase of about 10% in the floor area of the aqueous polishing process in order to accommodate the material, the alternate feedstock that would have previously gone to the plutonium immobilization plant. The alternate feedstock would - some of it would contain chlorides, and so a potential new air emission from the MOX facility would be chlorine. And there would also be some changes in the waste volumes and the characteristics of waste produced by the MOX facility.

The - for example, in the waste category, the volume of liquid low level waste generated by the MOX facility would increase about 60%. The - this waste would also include the impurities associated with the alternate feed; again, impurities that were part of the plutonium that would have gone to the immobilization plant.

The - the liquid high alpha activity waste, which would have - again, which would have gone to - previously gone to the Savannah River Site high level waste tanks, would now go to the waste solidification building. The volume of this waste

would increase by about 10%, and would contain higher levels of impurities like silver, for example.

In their revised environmental report that DCS submitted to the NRC in July, they also described the impact associated with the waste solidification building. The waste that this building would generate would have an impact on the waste management system at the Savannah River Site, as it would produce transuranic waste and low level waste that would have to be handled.

There would be construction-related impacts for building a new facility, and operation-related impacts, like air and liquid effluents, and radiation exposures to workers. These are the kinds of impacts DCS presented in their environmental report. The environmental report also considers accidents that could occur at the waste solidification building, and their environmental impacts.

I've given you a summary of the information they've provided. I'd be happy to take any questions.

MR. CAMERON: Okay, the purpose of this presentation was to try and give you an idea of the potential new impacts that the NRC would have to evaluate based on these changes to the program. And

62 1 we'll be glad to try to answer questions on those 2 potential environmental impacts. 3 Yes, sir? 4 MR. CHAPUT: Yeah, Ernie Chaput, Economic 5 Development Partnership. Your - I think it's the previous slide 6 7 said 60% more volume of low level radioactive waste, 10% more volume of high alpha activity waste. Are -8 what are those percentages in relation to that which 9 the MOX facility was proposed to generate before, the 10 11 combined MOX PDCF, that of the total SRS site? 12 mean, is it - is it 10% of a small number or 10% of a large number? Or, specifically, what are the gallons 13 14 or cubic feet involved? 15 I don't recall exactly the MR. BROWN: or cubic feet. I think we're in the 16 17 neighborhood of - neighborhood of 100,000 gallons per year, that, I'll say, order of magnitude, that type of 18 19 And when I say an increase, yes, it's 20 referring to what was proposed in their first 21 environmental report as compared to their revised

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low

specifically looking at waste produced by the MOX

facility. Not, for example, by the pit disassembly

level

waste,

report in July.

And

with

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we're

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	MR. CHAPUT: So a percentage increase of
3	a relatively low number, not of the total site?
4	MR. CAMERON: Okay, Ernie, did that answer
5	your
6	MR. CHAPUT: Close enough to get started.
7	MR. CAMERON: All right. Thank you.
8	Glenn, we'll be back up to you, and then back down
9	this side.
10	MR. WILLOUGHBY: William Willoughby,
11	Columbia, South Carolina. Two questions, really. One
12	is: Who constructs and operates the waste
13	solidification building? And at what point is the
14	waste that comes out of that building passed on to
15	DOE's Savannah River Site?
16	MR. CAMERON: Dave?
17	MR. BROWN: The - the waste solidification
18	building is a Department of Energy project. As I
19	understand, they've gone through conceptual design of
20	that plant. A contractor to - to build and operate
21	the plant has not been identified at this point.
22	The waste - again, this is another detail
23	that hasn't been finalized. But more likely than not,
24	the custody of the waste would be transferred from the
25	applicant, Duke Cogema Stone & Webster to DOE between

1 the MOX facility and the waste solidification 2 building. 3 MR. CAMERON: I'm sure that everybody 4 understands that the waste solidification building 5 doesn't require an approval from NRC, but it's still something that we will evaluate in the environmental 6 7 impact statement, so that we could take a look at all 8 the environmental impacts. 9 MR. BROWN: That's correct. 10 MR. CAMERON: Okay. 11 MR. BROWN: Yeah. 12 MR. CAMERON: Okay, and then we'll go back and then we'll be back up to you 13 14 gentlemen. 15 MS. CARROLL: I actually had a question about that waste, and it ties in a little bit to your 16 17 question. And I, too, expected a 10% increase in volume from, you know, increased processing of the 18 19 impure plutonium. And we actually had a waste 20 contention which was, "You make our waste plant, and 21 that's not okay." So now we have a waste plant, so we 22 salvaged our contention by critiquing the waste plant, 23 which then I really had to pay attention. 24 And imagine my surprise when the figures 25 in the current ER are less than what they were a year

1	ago. But in no way would I consider them trivial,
2	because we're talking 70,000 gallons a year, and we've
3	got 35 million gallons that have been plaguing us as
4	long as I've been involved, since 1988. There's been
5	no change. So that's not a trivial amount over 20
6	years. But the chairman of the board thinks that's no
7	big deal. That's all.
8	MR. CAMERON: All right, thanks, Glenn.
9	MS. CARROLL: Oh, oh, oh, oh. Wait a
10	minute. I didn't finish.
11	(Laughter.)
12	MS. CARROLL: I didn't finish. There's a
13	point.
14	MR. CAMERON: There is a point?
15	MS. CARROLL: And without the point, it's
16	pointless.
17	MR. CAMERON: Okay.
18	MS. CARROLL: The point is will you check
19	their math on these waste figures really carefully in
20	your EIS?
21	MR. BROWN: We will do so.
22	MR. CAMERON: Thank you.
23	Don, you could a
24	MR. MONIAK: I'm Don Moniak. I live in
25	Aiken County.

AUDIENCE: We can't hear you.

MR. MONIAK: Regarding the plutonium numbers you've presented here, you say there's 8.4 tons that's been moved out of the immobilization program. There's another 4.6 tons that was removed from the immobilization back in November 2000 from unirradiated fuel at Hanford, and so that gives you a total of 13 tons. Immobilization was supposed to handle 17 tons, so there's four tons out there at Hanford and Los Alamos and Savannah River Site that's unaccounted for, that wasn't in the immobilization plan.

Now, this program's already been set back by a year-and-a-half or so because DOE changed the design criteria well into the design, like it often does. And this - apparently this is going to happen again. And are they going to - is this facility being designed to handle all the other plutonium that wasn't in the immobilization plan, including some fuel grade junk?

MR. CAMERON: And before you answer that,
Dave, I just want to make sure that we're careful with
the use of the term "unaccounted for." I think that
you understand what Don is - is saying about that;
that it's not unaccounted in the sense that it's -

1	it's lost or missing.
2	MR. MONIAK: No, only 2.8 tons is
3	unaccounted for.
4	(Laughter.)
5	MR. CAMERON: Okay.
6	MR. MONIAK: It's quite less.
7	MR. CAMERON: All right. Dave, any
8	comment on that?
9	MR. BROWN: Yeah. I think I understand
10	the thrust of your concern, which is, as we evaluate
11	impacts and we go forward with the EIS, we do want to
12	be sure we understand, you know, what quantities does
13	DCS propose to use, of what type, and what - what
14	kinds of impurities, for example, will be in those
15	different types of plutonium that would come to the
16	MOX facility. And we will do that.
17	MR. MONIAK: As it - as it happens or
18	prior to it happening, so that it's a wider design?
19	MR. CAMERON: Don, we're going to have to
20	get you on the - on the transcript.
21	MR. MONIAK: (Inaudible) that's good.
22	MR. CAMERON: Okay. All right.
23	Yes, sir? And then we'll go to this
24	gentleman.
25	UNIDENTIFIED SPEAKER: I had a couple of

1	questions. I understand that - that DHEC can approve
2	or disapprove the use of the concrete in - in the
3	water. Is that correct? Department of Human - DHEC
4	in South Carolina. I understand that they have some
5	approval authority, as well, over the use of the - the
6	use of concrete in the - in the water in the liquid
7	waste. Is that true?
8	MR. BROWN: I'm not sure that I understand
9	your question. There are
10	UNIDENTIFIED SPEAKER: Are you proposing
11	to use concrete in the - in the liquid waste, to get
12	rid of that, to - as a way of getting the liquid waste
13	to
14	MR. BROWN: To - okay, I'm - to solidify
15	the - the waste.
16	UNIDENTIFIED SPEAKER: Yes.
17	MR. BROWN: Specifically - well, including
18	the
19	UNIDENTIFIED SPEAKER: I understood
20	someone said that DHEC had some regulatory authority
21	over that, as well. Is that right?
22	MR. BROWN: I'm not aware that they do.
23	That's
24	UNIDENTIFIED SPEAKER: So then there is a
25	possibility that if DHEC refused that, then they would

1 actually be providing for better safety for the public 2 than - than your agency. The other question was: Doesn't NRC have 3 4 the authority to require the Department of Energy to 5 do a full environmental impact statement? MR. BROWN: Yeah, I - I may refer to Tim. 6 7 But no, we don't have the authority to direct the 8 actions of the Department of Energy on the National 9 Environmental Policy Act. UNIDENTIFIED SPEAKER: Even if - even if 10 11 you consider their existing environmental impact 12 statement insufficient. I'm not - I'm not clear on 13 the process, I guess. 14 And the other question---I'll give you the 15 mic back or I'll pass it on --- is how do we get the names and the history of what industry the - the five 16 people who are making the decisions came from? 17 Is that on the website somewhere? 18 MR. CAMERON: Could - if I may borrow that 19 20 back for a minute. There was a similar question. 21 biographies someone wants the οf the 22 commissioners, is it easy to get it just off the website, NRC website? I think it is, which is... 23 24 MR. BROWN: I think there are short 25 biographies, yes, available.

1 MR. CAMERON: Www.nrc.gov. And if anybody 2 wants those biographies, please give your name to 3 Betty Garrett back at the registration table, and 4 we'll send you a hard copy. 5 Ι think, in order to avoid any misunderstandings because of the last question, can 6 7 you just - Tim, can you just talk about - what do we expect from the license applicant, either - on a 8 9 construction authorization request? What are our 10 requirements for them to submit in terms of 11 environmental data and what-have-you? 12 The regulations - can you MR. HARRIS: The regulations have a specific section in 13 14 10 CFR Part 51, which outlines specifically what the 15 applications submit. And they have submitted that. We reviewed that for administrative acceptability; 16 17 that is, were there any holes in the environmental No, that all the issues 18 And we concluded: were addressed. 19 20 currently in We're the process of 21 reviewing the validity of the data, which included 22 some information that we submitted to the Department 23 of Energy. So we don't accept that data blindly; we 24 review that, as well.

MR. CAMERON:

Okay, thank you.

1	Let's go to this gentleman right here.
2	Yes, sir?
3	MR. TURNIPSEED: Yeah, my name is Tom
4	Turnipseed from Columbia.
5	And I just want to know, Dave, how closely
6	the NRC will be monitoring this experimental MOX deal
7	over in Belgium. Do you have people there? Do you
8	send someone with - along with DCS folks to follow
9	this, since it's the first real test of how we're
10	going to do the MOX thing? Will you all be involved
11	in any way with that?
12	MR. BROWN: I may not be the best person
13	to answer that. We are definitely involved in the
14	requirement for lead test assembly, and that it be -
15	that these test assemblies be made. It's not certain
16	at this point - the DOE has not decided where they're
17	going to make those. Belgium is - is one option.
18	MR. TURNIPSEED: You know Belgium; right?
19	I mean, you
20	MR. BROWN: Yeah, we know
21	MR. TURNIPSEED:you know that
22	you've
23	MR. BROWN:we're aware that that's
24	MR. TURNIPSEED: What type - where'd you
25	find it out from, Dave, about Belgium?

1	MR. BROWN: That's something that's being
2	looked at more closely in our Office of Nuclear
3	Reactor Regulation. Those folks would receive any
4	license amendments to burn MOX fuel at the Catawba and
5	McGuire Nuclear Stations. So there's really another
6	part of the NRC that's doing that work, different than
7	the office that Tim and I work for.
8	MR. TURNIPSEED: The process in Belgium,
9	though, is going to be similar to what you're going to
10	be doing here on a much larger scale; right?
11	MR. BROWN: Yes, the process would be very
12	much similar to what we would do here in the United
13	States.
14	MR. TURNIPSEED: Let me just add - let me
15	just say this. People in Columbia are just absolutely
16	terrified from this terrorist war. I mean, it's just
17	- you turn on the TV and they're everywhere. They're
18	in Georgia, New York, all over the world. And what
19	about the environmental impact and the safety of
20	sending this plutonium over to Belgium so DCS - they
21	can do this experiment. And I understand you guys are
22	going to be somewhat involved in it; right? You're
23	going to keep up with it?
24	MR. BROWN: We're going to keep up with
25	it.

1	MR. TURNIPSEED: Okay. And it's going to
2	come back to the Duke reactor up near Charlotte;
3	right?
4	MR. BROWN: That's the plan.
5	MR. TURNIPSEED: Isn't that the plan?
6	MR. BROWN: That's the plan.
7	MR. TURNIPSEED: Do you - do you have any
8	concern about this terrorism, this - every time I turn
9	on the TV, and $I'm - I'm$ frightened, and people are.
10	Do you have any concern about it?
11	MR. BROWN: Certainly. Certainly. I
12	think at this point what I'm - what remains to be seen
13	is whether - if your concern is the shipment of this
14	material overseas
15	MR. TURNIPSEED: Absolutely.
16	MR. BROWN:whether that would even
17	occur. Because the - the question of whether lead
18	test assemblies would be built in Belgium is still not
19	decided. So
20	MR. TURNIPSEED: All I know is what I read
21	in the papers.
22	MR. CAMERON: Yeah, and I
23	MR. TURNIPSEED: I don't know all of your
24	inside bureaucratic lingo and stuff like that. I just
25	read it in the papers.

1	MR. CAMERON: Yeah, and let's
2	MR. TURNIPSEED: But tell us if you know
3	about it. Please tell us.
4	MR. CAMERON:let's try and avoid the
5	bureaucratic lingo. In order to give you as much
6	information on this as possible, I think we have two
7	perhaps follow-on pieces of information for you. And
8	if that doesn't do it, could we have the NRC staff and
9	anybody else who has information for Mr. Turnipseed
LO	MR. TURNIPSEED: Turnipseed.
11	MR. CAMERON:and his concern, we'll do
12	that.
13	We will first of all go back - go back
14	here, and if you could just give us your name for the
15	record.
16	MS. FRAZIER: Tina Frazier. And I - I
L7	just want to understand - well, my understanding, that
18	the MOX concept is not a new concept. That there were
19	tons of MOX actually made in the '60s and '70s in the
20	United States. And, in fact, was used with - made
21	with weapons grade plutonium because that's all that
22	was available. Is that true and
23	MR. BROWN: There - back, oh, more than 30
24	years ago now the U.S. Atomic Energy Commission at
25	that time, which was the commission that existed

before the DOE and the NRC, did license mixed oxide 1 2 fuel plants. Several of them. So, no, it's - the 3 concept of licensing a mixed oxide fuel plant in the 4 U.S. is not new in that regard. The use of weapons 5 grade plutonium is new. In the past, the plutonium that we had envisioned using in these mixed oxide fuel 6 7 plants was recycled from commercial nuclear fuel, not 8 from nuclear weapons. 9 Does that answer your question? Yeah. MR. CAMERON: Okay, thanks. Thanks, Dave. 10 11 if Glenn can just briefly give some Let's see 12 information that Mr. Turnipseed might find useful. Glenn Carroll. 13 Tom, on the lead test 14 CARROLL: 15 assembly, I don't know if the NRC has any authority over high - you know, shipments on the high seas and 16 17 Belgium. But before they can load it in Catawba and McGuire---and John Hull will tell me if I'm wrong---I 18 19 believe that that requires a license amendment, and I 20 believe at that juncture, when they announce that, 21 within 30 days the citizenry could intervene and 22 engage the Atomic Safety and Licensing Board to, you 23 know, be party to that. 24 MR. CAMERON: Thanks, Glenn.

Is that right?

MS. CARROLL:

1 MR. CAMERON: All right, other questions 2 for - for Dave? And any lingering questions from Tim Harris's presentation, as well? 3 4 MR. WILLOUGHBY: William Willoughby. You 5 say from this slide that the DCS environmental report will have to evaluate disposal impacts, TRU waste and 6 7 low level waste from the waste solidification facility. Does this mean that they have to get that 8 9 information from the DOE and be able to supply it to 10 you? 11 MR. BROWN: Yes, in - in many cases, 12 because there is an interface between Duke Cogema Stone & Webster's plant and the Savannah River Site, 13 14 DCS gets their information about t.he sites' 15 capabilities, for example, for waste management, from the Department of Energy. We typically ask questions, 16 17 for example, of DCS. If they don't know the answer or they know that DOE does, they'll ask DOE so that we 18 19 can get an answer to our question. 20 Does that address your question? 21 MR. CAMERON: Okay, we have two questions 22 right here. 23 Yes, sir? 24 HOOKER: I'm - my name's William 25 Hooker, and I want to address a question to the

77 1 lady... 2 Cheryl Trottier? MR. CAMERON: MR. HOOKER: ...that said something - said 3 4 something about in the long run. And I was trying to 5 figure out if that was tritium in the surface water. Is it 25 - I believe it was 25,000 pounds of intoxins 6 7 coming out of the stack. And I wanted to know if that was part of a long run that the NRC would... 8 9 MR. CAMERON: Cheryl? 10 MS. TROTTIER: Again, as part of their 11 application, they would have to indicate all of the 12 environmental potential impacts. And then, in our evaluation, we would look at all the existing 13 14 contamination and - in order to make a determination 15 that they would be in compliance with the limits, 16 which are all pathways. In other words, air, water, 17 standing in the midst of radiation, whatever pathway the human body is going to come into contact with 18 19 radiation is evaluated in meeting that - those 20 standards. So it would have to be all pathways. 21 MR. CAMERON: Okay, thank you, Cheryl. 22 Harry?

Resource Center. Just a quick question for Tim. I talked with you, you said - could - the NRC has a

MR. ROGERS: Harry Rogers, Carolina Peace

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1 unique funding relationship, different than the other 2 regulatory agencies. And I wonder if you could 3 explain that for us. 4 MR. HARRIS: Yeah, thanks, Harry. You're right, I didn't - but the answer was "yes," but it 5 wasn't - wasn't the whole answer. 6 7 NRC receives its funds through licensing fees and fees to applicants, such as DCS. We also 8 9 receive appropriations from Congress, and I think that was - Harry wanted to make that clear, that we are 10 11 funded both by appropriations and by - by license 12 fees. MR. CAMERON: Maybe you want to - maybe 13 14 you want to clarify that. We - we do get license fees 15 from licenses. We don't get - there are license fees 16 charged... 17 But, you're right, Chip. MR. HARRIS: MR. CAMERON: ...the licensees. The NRC 18 19 doesn't get those directly. The Treasury gets those, 20 and we still have to go through the regular 21 appropriations process; correct? 22 Right. MR. HARRIS: 23 MR. CAMERON: Okay. We're going to - why 24 don't you just stay up there so that you can set up 25 these two questions. And I want to ask you to try to

1	maybe explain them as in plain English as - as
2	possible. Let's see if there's any - any other
3	questions out here.
4	Let's go to - let's go to this lady right
5	here.
6	MS. KELLY: We're talking about the NRC
7	commissioners. Do they have to be approved by
8	Congress if they're appointed by the President?
9	MR. HARRIS: Yeah, appointed by the
10	President and approved by the Senate.
11	MS. KELLY: And after
12	MR. HARRIS: Confirmed by the Senate.
13	MS. KELLY: Oh, the other thing is, that
14	I - I would assume that no shipments have yet gone to
15	Belgium, simply because Belgium hasn't agreed to
16	process them; is that correct?
17	MR. CAMERON: Can someone give us a
18	clear
19	MR. HARRIS: I believe that's correct.
20	MR. CAMERON: Okay, that's correct.
21	And let's go to you, sir, for a final
22	question, and then we'll go to public comment. Yes,
23	sir? Have your name and
24	MR. RUDOLPH: My name is Jerry Rudolph
25	from Columbia.

1 The stated limits of the MOX program is to 2 render plutonium unavailable for weapons. understand that part of the MOX production includes 3 4 reprocessing or cleaning of plutonium. What - what is 5 being done to assure this reprocessing will not result in plutonium that's more usable for nuclear weapons 6 7 than the waste that they're - they're trying to 8 remove? And is there anything that would keep the -9 the Department of Energy from using reprocessing facilities, designed for MOX, from being 10 11 used in nuclear weapons? 12 And - and I have one other question. the other question is: One of the objectives of NEPA 13 14 is to provide relevant information about the project 15 that's to be available to the public, to enable them to be a part. And I just want to know what documents 16 17 outline the respective roles of NRC and Department of Energy, and how do the responsibilities relate to each 18 19 I just want to - where would I find that 20 documentation? 21 MR. CAMERON: Okay. Tim or Dave on the -22 the first two - first two questions. 23 I'm sorry, Chip, MR. HARRIS: 24 writing and - and listening, and could - could you

summarize them real quick, Jerry?

1 MR. CAMERON: Okay. Well, let's... 2 And I'm sorry. MR. HARRIS: 3 MR. CAMERON: Let's - let's go to the -4 let's go to the last question first, which is 5 documentation on the NRC's environmental review process and relationship to the Department of Energy 6 7 and - and DCS. Now, I think you're trying to explain a few minutes ago that - that the license applicant, 8 okay, DCS in this case, first of all has to provide 9 the environmental data to the NRC. Those regulations 10 11 are in Part 51 of our regulations. 12 Part 51. MR. HARRIS: MR. CAMERON: And is there something that 13 14 we can - that we can get to this gentleman that 15 perhaps lays that out? I think maybe if Betty can 16 MR. HARRIS: 17 save a copy of the scoping summary report, that might on the different roles of the 18 shed some light 19 different bodies. And certainly, Jerry, if you - if 20 you want to send me an Email or call me, I'll try to 21 do better. You asked - you asked some pretty in-depth 22 questions that - that don't have a two minute response 23 to respond to. 24 MR. CAMERON: Okay, the other questions 25 to do with the reprocessing or cleaning of

1	plutonium.
2	MR. HARRIS: Yeah. Maybe it's a
3	semantical point on my part, but I don't think the MOX
4	facility is reprocessing. I - at least from my point
5	of view, reprocessing is taking spent nuclear fuel and
6	reprocessing it to - to gather fissile material. I
7	think what the MOX facility is doing is taking weapons
8	grade plutonium provided by the Department of Energy,
9	and purifying it, cleaning it, and producing fuel.
10	MR. CAMERON: And there's
11	MR. RUDOLPH: Purification is what I'm
12	talking about. Creating a designer-based plutonium
13	that could be used in weapons, too.
14	MR. HARRIS: It is weapons grade
15	plutonium.
16	MR. RUDOLPH: Yeah, but you're cleaning
17	it. It's cleaning it into a state that
18	MR. HARRIS: Yeah. Because - because
19	there's impurities in it, you can't put it directly
20	into a fuel element. It has to be processed, it has
21	to be homogenized. There's a - there's a
22	MR. RUDOLPH: Well, I understand once you
23	build new weapons, you need to do the same thing with
24	the existing
25	MR. CAMERON: Can I - I'm going to ask

1 several people from the audience who might be able to 2 clarify this for Mr. Rudolph, to - to deal with this 3 - this offline, so we can get the answer to your 4 question. 5 MR. HARRIS: I think one - one other question was whether it could be used for future 6 7 reprocessing. And the environmental impact statement is considering the environmental impacts of 34 metric 8 9 tons of plutonium. That's a fixed limit that the EIS is considering. So any quantity greater than that or 10 11 for a different purpose would be beyond the scope of 12 the environmental impact statement and would need to be looked at again. 13 14 MR. CAMERON: Okay, thanks, Tim. Tim, can 15 you talk about the two questions, and trying to 16 explain those - those clearly. And then we're going 17 to ask people to come up and give us some public comment. And I'll find out who Betty has on the list. 18 19 Tim? 20 MR. HARRIS: Thanks, Chip. And again, if 21 you have questions of Dave and I, we've provided our 22 phone numbers and Email addresses. And please feel 23 free to contact us. 24 One of the objectives of the - of NEPA is 25 to provide relevant information about the project to

1	the public, and enable them to be a part of it and
2	provide input. Specifically, we're asking for
3	questions tonight that relate to how the changes made
4	by DOE and DCS could affect or how they should be
5	interpreted in an environmental review or an
6	environmental impact statement.
7	What we'll do is, we'll take your comments
8	here tonight, the comments we've received in writing,
9	Email, and those comments will help us determine
10	whether our views that were presented in the scoping
11	summary report should be changed.
12	MR. CAMERON: Let me just check in to see
13	if people understand those two questions. Lee, can
13 14	if people understand those two questions. Lee, can you describe the uncertainty that you have about these
14	you describe the uncertainty that you have about these
14 15	you describe the uncertainty that you have about these two questions?
14 15 16	you describe the uncertainty that you have about these two questions? MR. POE: As I read the first question,
14 15 16 17	you describe the uncertainty that you have about these two questions? MR. POE: As I read the first question, and I - and from what I know about the NEPA
14 15 16 17	you describe the uncertainty that you have about these two questions? MR. POE: As I read the first question, and I - and from what I know about the NEPA regulations, the NEPA says there will be a - an
14 15 16 17 18	you describe the uncertainty that you have about these two questions? MR. POE: As I read the first question, and I - and from what I know about the NEPA regulations, the NEPA says there will be a - an analysis of a no-action alternative.
14 15 16 17 18 19 20	you describe the uncertainty that you have about these two questions? MR. POE: As I read the first question, and I - and from what I know about the NEPA regulations, the NEPA says there will be a - an analysis of a no-action alternative. MR. HARRIS: Correct.
14 15 16 17 18 19 20 21	you describe the uncertainty that you have about these two questions? MR. POE: As I read the first question, and I - and from what I know about the NEPA regulations, the NEPA says there will be a - an analysis of a no-action alternative. MR. HARRIS: Correct. MR. POE: Now, I don't understand what

MR. HARRIS: Yeah, let me...

MR. POE: Now, kind of help me a little bit. What do you - what are you expecting the public to tell you on the no-action alternative?

MR. HARRIS: Okay, when we did the scoping, we had the proposed action, which was to

construct the proposed MOX facility. And the second no-action was not to do that. And we looked at that as continued storage of material at sites that DOE already has. That is, if we don't license the MOX facility, what will happen to this? One possible

alternative was that it's just going to stay where it

12 | is.

The public identified a second no-action alternative. That is, if you didn't build MOX, if you didn't authorize construction, the plutonium could be immobilized. And at the time DOE was planning a hybrid approach, and we considered that to be a viable alternative. And as reflected in the scoping summary report, we were going to consider that as a viable alternative.

The question here tonight is: DOE has canceled those plans to build the facility. And the specific question is: Should we still consider that in our environmental impact statement? And if so, how - has any of the scope associated with that

1 alternative changed as a result of the program 2 changes? 3 MR. CAMERON: Okay. And I think that -4 thank you. Is that in more plain 5 MR. HARRIS: English, Chip? 6 7 MR. CAMERON: Yeah, that - that does it. Let's go to the people who wanted to give 8 9 And I guess I would ask you, if you us comments. 10 wouldn't mind, to - to come up here. And - and please 11 keep it to five minutes. I'll remind you if you're if you're going over. 12 But Harry - Harry Rogers. We're going to start with - with Harry. And if you 13 14 don't mind, please... 15 I don't mind. MR. ROGERS: All right, thanks, Harry. 16 MR. CAMERON: 17 MR. ROGERS: I'm Harry Rogers. As I mentioned, I work in and operate a reactor at D.C. 18 Summer at Jenkinsville, South Carolina, SCEG. And too 19 20 often people in my industry have had a public 21 acceptance of projects by the DOE that - that we just 22 accept and we don't question. And I'm here to 23 question, and I have been questioning MOX. 24 questioned tritium. I want to - one of the comments I want to 25

make is a response to - I think it's just ingenuous and completely irresponsible when we talk about the 00002, because what it doesn't mention is that that's not the only danger to the public. And - and it doesn't take into account accident.

And too often economic development people have not taken consideration into the risk to the workers, in the interest of short-term profits, and at the expense of public interest. And that's - and that's how I feel about the question of MOX, in general.

The - got a T-shirt from Rocky Flats. Ιt was produced by the workers. And I think that we shouldn't make - we probably shouldn't cite isolated statistics, and maybe we shouldn't - it's said that talk about the cancer risks. But what we can talk about is the Department of Energy, in 1999, admitted to 22 different contaminants and diseases at 14 DOE sites, SRS included. And for somebody to imply that there are no health consequences to what they're doing at SRS doesn't serve us, doesn't serve debate, and doesn't serve an honest evaluation of what kind of projects should be done and what kind of projects shouldn't be done.

The other, as someone that works in a

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reactor, is that the recent news and data, especially, where the allegation is that the NRC was cooperative. And certainly Northeast Utilities and - and Millstone, the proof is that the NRC was cooperative. And the history of the Atomic Energy Commission and the Department of Energy is that they've had to change the name because of the egregious conduct of the Atomic Energy Commission.

And I worry that that's the trend for the NRC now. Is it less in the safety of the public, less in the safety of the workers, and more in the advocacy of - of privates, like tritium, and privates, like MOX, and privates, like running 454 days without - without shutting down, which is - which is one of the problems with - at Davis-Besse. What's been admitted by utility is that we put production - we put production ahead of both the safety of - of the workers and the safety of the - of the public.

I guess, in closing, I just want to tell the economic development people is that I think that's what you're interested in, is money. And I don't think that you're interested in the long-term public good, and I don't think that you're interested, and I don't think that this is a patriotic adventure. I think this is all about Duke, which is being - Duke

1 Energy, which is being investigated on both states for 2 questionable business practices; Cogema, which is -3 which I think should be part of the - you know, part 4 of the investigation process as to what - what is the 5 track record of Cogema in - in France. And how can we expect that they'll do 6 7 business here - and I think that is a - something for the NRC to be considering. And I'm probably finished 8 with my five minutes, and I could go another ten. 9 10 Thank you. 11 MR. CAMERON: Okay, thank you, Harry. 12 Okay, again, Mr. Hooker. Is Mr. Hooker Oh, there's Mr. Hooker. All right. 13 14 MR. HOOKER: Hello. My name's William 15 I'm the owner of Georgia Builder and Supply Hooker. Company. I worked for the U.S. Forestry Service from 16 February 10th, 1992, through December 1999. 17 Work consisted of beaver traffic and wild hog control, road 18 19 building, mowing of roads, the secondary roads, 20 culvert cleaning. 21 I was also an employee of Westinghouse, 22 Savannah River Plant; at Savannah River Plant, M. K. 23 Ferguson, B. F. Shaw Company for 24 years as a 24 draftsman, construction discipline engineer, work

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control planner.

Second, I'd like to thank NRC for coming down tonight. And I'd like to see more meetings like this so citizens could make comments.

My major job was to remove beavers from these surface water streams, Carolina bays, swamps, canals, reactor canals. We removed approximately - between the beavers and hogs, we removed 9,544 animals over this period of time. All my contracts stated a normal environment except for snakes and uncertain footing.

I worked in these streams that are - where the plumes have reached - the plumes from contaminants like tritium from F Area, the old burial ground, H Area tank form had - had thousands of curies of tritium dumping into these streams. We worked in these streams where the DOE had allowed the dumping of thousands of curies on 1-25, some of the streams as high as 30,000 curies, without notifying us that they was dumping these - anything on us.

I went back and I checked each one of these streams, and where they've got pipes piped into the streams or the canals or these unnamed tributaries. And it's - it's just not a good situation. I've talked to the EPA. They've sent me a print, GCO, 1999, that lists 281 of these waste

sites that are active.

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And I've also had some tests run chemicals like antimony. They had a reference point of .00 - .030. What I have in me is .212. Arsenic, they got a .100. I've got .109. Bismuth, I'm over Lead, I'm nine times over the the limit on that. limit on that one. Mercury, I'm over the limit on Nickel, uranium. that one. On some of these chemicals, the antimony is worse than arsenic. I'm sitting here reading this. This is from ATSDR. It says the EP allowance, .006 parts of antimony per million parts of drinking water. EPA requires a discharge of spills in the environment of 5,000 pounds or more of antimony be reported.

We need to have more people looking at what these people are actually dumping on the people that are working in these streams, or the sportsmen that are out there taking home the deer or the hogs or the turkeys that's being transported off - offsite to other parts of the United States. SRL is not testing these animals, far as - they take - they take small parts of cuts off of the meat or the muscle tissue and they check them for what they want to.

Now, I've got right here where I was tested, and my family's sick. Just watch them. Far

1 as trust, I don't - I don't - I don't trust them. 2 I personally feel I'm dealing with the devil. 3 - and you make sure you get it on record, because I 4 ain't - I ain't playing with them. And it's just 5 sickening. And - and now I've found out that you all 6 7 - you all get paid by the government, too. And I know that NIOSH gets paid by the government, and they told 8 me they'd give me a independent (sic) investigation, 9 and that - that wasn't right, either. They left me 10 11 hanging with all these men. I had 15 employees. 12 I got some of them that's got lung problems, thyroid problems. 13 14 our equipment was ever checked, none of our clothing 15 was checked. And you - you don't go out dealing with animals that live in the mud or the creeks or the 16 17 swamps and not get muddy. Waders, far as leaks in the - we'd be wet. And I got the - I got the reputation 18 19 on my back. And I'm telling you, I ain't happy with 20 them at all. So... 21 Thank you. MR. CAMERON: 22 ...all I can say is watch MR. HOOKER: 23 them. 24 MR. CAMERON: Thank you, sir. 25 (Applause.)

MR. CAMERON: Mary Kelly? Mary's with the League of Women Voters of South Carolina.

MS. KELLY: I'm Mary Kelly with the League of Women Voters of South Carolina. The League has a rather unique niche among non-profit organizations because of our dedication to both the governmental process that is at the heart of our American democracy, and we also work to insure that all citizens get to enjoy their rights of participate - participating in that process.

We also recognize that to participate effectively, citizens must have a base of knowledge on both the issues and the process. So, with that in mind, I would like to call the attention of the NRC to the following. We urge you to comply with the National Environmental Policy Act to the fullest extent of the law. We see what is going on throughout the plutonium disposition, spent fuel disposition process, MOX process, and the reinstitution of a new plutonium "trigger" program. We see all of that as a shortchanging of this process. There are constant changes, some so fundamental they should, in many cases, go back and prepare a new EIS.

We would like to see a real clarification of the role of the EPA, the NRC, DOE, and DOD in all

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aspects of the proposed programs. Where does the justification of each begin and end; how do they interact; and so forth?

It is certainly being glossed over that there are areas where you cannot proceed if you do not get permits from the South Carolina Department of Health and Environmental Control. We wonder how, when, and if the manufacturing process for MOX gets underway, the role of the Nuclear Regulatory Commission and the Departments of Energy and Defense will be defined and respected.

We find it a matter of great concern that the commercial and civilian aspects of nuclear material manufacturing and use are being mingled with the military. This has been a time-honored separation that has served this nation well, even though in some cases it had an aspect of unreality. It was this separation that permitted public acceptance of nuclear power for the generation of electricity, and the commercialization of the taxpayer paid weapons research of World War II.

People in an earlier era had a well-founded and health respect for the dangers of nuclear operations. And, despite the fact that there are many people in this area who think everything is perfectly

safe, I assure you, as a chemist, and with the knowledge of the chemical industry, that both the heavy chemical operations and the radioactive materials handling is not perfectly safe. We have to believe that the people who are doing these things are doing them as safely as possible, but we have evidence to show that that is not always true.

Other matters that trouble us are the accelerated cleanup plan. This is supposed to save money; but will it? And it is justifiable to save money by doing that? The history of SRS is full of projects that had to be aborted. Cleanup at SRS still has a long way to go. We don't want to see this neglected or shortchanged. This state in some ways has been a sacrificial state for the nuclear commercial military nuclear and the nuclear industries. We - I think we really do deserve better. The new plans for handling the high level liquid waste have been drastically changed. We are now - they are now planning to mix the bulk of the liquid waste with cement, and then leave it at SRS. That really isn't going to fly in South Carolina. It has already elicited very negative response from а environmental groups, and South Carolina and Georgia officials. Cement isn't forever. It is leachable,

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and becomes easily broken up on aging in a relatively short time. We have enough bridges and highways around to show that it just is not a very good option.

The last speaker was talking about the health impacts. We have had a study going on through the Center for Disease Control that came to a halt because the money wasn't appropriated to carry it forth. And I'm referring to the study that was initiated by Dr. John Till. Dr. Till went back into the beginnings of the Savannah River Site. He collected all kinds of material.

And fortunately, at that time, information was declassified, so that he really was able to get together a database. The database does But the final analysis of that effort has exist. never been done, and it should be done. something that the people of South Carolina should We've had a number of studies that were demand. They did not have access to that kind of short-term. So we really have never had a truly information. valid study on the health effects of the Savannah River Site dating back to its first early days. need it.

But the Nuclear Regulatory Commission is the independent oversight agency. And the public is

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1	really extremely dependent on it. We urge you to do
2	a thorough, conscientious, and truly independent job
3	using the best science available. And I thank you for
4	the opportunity to come here and say those things.
5	Thank you.
6	MR. CAMERON: Thank you, Mary.
7	Let's go to - next to - is it Allen
8	Blancett? Allen?
9	MR. BLANCETT: My question was answered.
10	MR. CAMERON: All right. Thank you,
11	Allen.
12	Bobbie Paul?
13	MS. PAUL: First of all, I want to thank
14	Mary for her comments. Greatly appreciated.
15	My name is Bobbie Paul, and I'm the
16	President of Atlanta WAND. WAND stands for Women's
17	Action for New Directions. Historically it was known
18	as Women's Action for Nuclear Disarmament.
19	I represent about 550 women and men in the
20	Atlanta area, and about 40 partner organizations which
21	joined with WAND. Our mission is to empower women and
22	men to act politically, reduce militarism, and
23	redirect excessive military spending"excessive"
24	being the operative wordtowards unmet environmental
25	and human needs.

My concern right now - oh, the national office is in Arlington, Massachusetts, near Boston, and we also have a women's legislative lobby who it's bipartisan, and we work educating women legislators across the country about issues such as We also look at spending priorities and the budget, and how our - especially our discretionary spending, which is 34% of all of our total budget, is spent. Right now 53% of our discretionary spending is spent on military and the Pentagon, not that all this money comes from there. We also have 10,000 members nationwide, and 20 chapters across the country.

I'm here in response. I feel like I should speak to the question which is immobilization. I don't really have a prepared speech. It is WAND's that, position with the current technology, immobilization is the way to go, and the safest way to We feel that it's cheaper, that it's absolutely less - less dangerous, it's not as transportation intensive, and that in some ways our studies show that it will provide more jobs for people.

But, to be brief and let other people speak, I wanted to quote a couple of things that we feel about - about MOX, and why we think MOX is really quite a bad idea. We feel that the MOX infrastructure

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supplies all the pieces needed for making plutonium a desire - a desirable commodity. While it claims to dispose of it, it legitimizes the production of plutonium by foreign countries, and creates a market for something that could be used in weapons of mass destruction, which seem to be in the news a lot these days.

Plutonium is dangerous and should be kept out of our economy and out of our commercial reactors. And I would say that our studies and our experts, whether it's Argin (phonetic) in Washington, IER and other people, shows that MOX produces more waste than the alternative of immobilization. That we are creating more waste. And it's a lie to say that we're trying to rend it useless and - or safe. It requires this plutonium polishing and which, as far as I understand---and I am not a scientist---produces more high level radioactive liquid waste.

I could make some more points, but I just want to close by saying our - that the nuclear power technology seems to me a first step towards nuclear weapons technology. And for years, as Mary said, the U.S. has maintained a clear line between nuclear weapons and nuclear power by keeping plutonium out of the utilities. I feel like MOX is a step backwards,

1 reversing at least 20 years of non-proliferation 2 policy. And I feel it's unlawful. Thank you. MR. CAMERON: And, Bobbie, just let me ask 3 4 one clarification. Ι would take it the 5 implications of what you said is that, in terms of the NRC's question that immobilization should be treated 6 7 as an additional no-action alternative, you would... 8 MS. PAUL: All those no - double-negatives 9 in there, I wasn't here for the scoping, so I don't know what really you're asking. But I certainly would 10 11 consider immobilization. 12 MR. CAMERON: Okay. I mean, I basically think we 13 MS. PAUL: 14 should stop making the stuff. 15 I think that that's MR. CAMERON: Okay. 16 - that's clear to us. Thank you very much. 17 MS. PAUL: Thank you. MR. CAMERON: Tim, did you have a question 18 19 or did you want to get your five minutes up here? 20 MR. HARRIS: Tim Harris, NRC. No, I don't 21 have a comment. I just wanted to clarify something, 22 because I think it was a point that was made by Dr. Kelly and Bobbie, also, is that the MOX facility does 23 24 not generate high level waste. It's high alpha waste, 25 which - which is a distinction that needs to be made.

1	It is not high level waste.
2	AUDIENCE: What is the distinction?
3	What's the difference in the radioactivity and the
4	half life?
5	MR. CAMERON: Thank you. Thanks for that
6	clarification and
7	MS. PAUL: What does that mean?
8	MR. CAMERON:I think this gentleman
9	has a question now, Tim. What's your question, sir?
10	We'll try to get it answered.
11	UNIDENTIFIED SPEAKER: My question is:
12	What does that mean in practical terms? What does
13	that mean in terms of the half life of the - the
14	substance? Is it radioactive? How radioactive is it?
15	How long will it last compared to high level
16	radioactive waste?
17	MR. CAMERON: And, very similarly, what
18	are the implications - where is that? What are the
19	implications of the fact that it is not high level
20	waste?
21	MR. HARRIS: Well, I think as Dave tried
22	to point out, high level waste - the current plan for
23	the disposal of that material is to - to go to a
24	proposed geologic repository, potentially Yucca
25	Mountain. This high alpha waste we would actually -

1	actually be classified as transuranic waste. And what
2	it means is, basically, it's - it's got its high end
3	- it's go that lot of americium, which is an - and
4	it's - it's alpha, which is a form of radiation. You
5	have alpha, beta, gamma. And we could go into
6	discussions on health physics.
7	But the distinction is, it's - it's - high
8	level waste is generated by reactors. The MOX waste
9	would end - ultimately end up being high level waste.
10	But the waste that we're talking about coming out of
11	the waste solidification or the MOX facility is high
12	alpha waste.
13	MR. CAMERON: Let me - let me just try and
14	see if
15	UNIDENTIFIED SPEAKER: Isn't that
16	plutonium?
17	MR. CAMERON: Let me - let me just try and
18	speak to this
19	MR. HARRIS: No, americium.
20	MR. CAMERON: Let me just try to short-
21	circuit this, and people can talk in detail
22	afterwards. I think the question - the implications
23	of what Tim said was that because it's not high level
24	waste, that somehow it wouldn't be something
25	hazardous. And I think that's not what you're trying

1	to say.
2	MR. HARRIS: No, no. It's just that it -
3	it has a different disposal pathway. It would go
4	potentially to the waste isolation pilot plant rather
5	than going to the high level waste - and I think it -
6	it's confusing, and it's I guess understandable that
7	- that you all are confused, because before they were
8	going to send the high alpha waste and mix it with
9	high level waste and dispose of it at Yucca Mountain.
10	But now they're not doing it. They're taking high
11	alpha waste, solidifying it, and potentially it will
12	go to the waste isolation pilot.
13	MR. CAMERON: Okay.
14	MR. TURNIPSEED: Just a minute.
15	MR. CAMERON: We're going to go on with
16	MR. TURNIPSEED: I didn't mean to create
17	questions. I just wanted to clarify a minor point.
18	MR. CAMERON: Tim, can you just
19	MR. TURNIPSEED: Thank you.
20	MR. CAMERON:let's sit down. We're
21	going to go on with the rest of the
22	MR. TURNIPSEED: What's the health risks
23	comparatively of the alpha waste and the high level
24	MR. CAMERON: Right.

MR. TURNIPSEED: Just do that. Just tell

	104
1	us.
2	MR. CAMERON: We're going to be
3	MR. TURNIPSEED: Can you do that?
4	MR. CAMERON: Yeah, we will. But we're
5	going to go through the rest of the people who want to
6	comment now, and then, Tim, you're going to have the
7	floor to explain that to people; okay?
8	MS. CARROLL: Don't forget it. Make a
9	note.
10	MR. CAMERON: All right. I will, Glenn.
11	Okay, Karen Garcia.
12	MS. GARCIA: My question's been answered.
13	Thank you.
14	MR. CAMERON: Okay, great.
15	Glenn Carroll.
16	UNIDENTIFIED SPEAKER: Bring your guitar?
17	MS. CARROLL: I don't have time. If
18	there's time at the end, we can all sing, "The Times,
19	They Are A-Changing" together.
20	MR. CAMERON: Do you know any lyrics with
21	"high alpha" in them?
22	MS. CARROLL: That's a song I don't want
23	to sing. I do know the answer to that question, but
24	I'll let them - I'm not spending my five minutes on
25	it.

Well, you all, I brought my ER. I get one because we're intervening. And I understand this is available on Adams, you know. So maybe if you have, like, a wide band and a little time, you could

And I had to read it, too.

So I want to thank you guys for coming and I really want to thank you for your responsiveness when we ask that you record the meeting. And that's great. And extend the comment period. I like that. And I think there's quite a few people from Columbia here tonight, and I hope you have Columbia is the capital of noted that. It's the - where many organizations have their headquarters, that certainly we could maybe been spending time with the governor tonight if we had gone So it's an important perspective in to Columbia. South Carolina. There's a lot of stakeholders there that don't enjoy the economic benefits of this community that make it harder possibly to be critical.

Yes, yes, we should be looking at immobilization in the EIS, definitely. And I'm really excited about this, because immobilization - you know, if there is a down side, you got to tell me what it is. So this is your opportunity. Because immobilization would be jobs for everybody for a long

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download one.

time. It's got more jobs than MOX. Did you hear that? More jobs than MOX. And, instead of making waste, it would actually use the waste that has defied management for the last 20 years. Good plus.

It would take care - you know, our goal is to keep plutonium from being used as weapons. It's a direct path. You don't create any waste. You don't create fresh fuel which contains weapons grade plutonium. And I'll get into that deeper into my comments, the many places on the MOX path where fresh fuel is potentially an environmental risk.

One of the environmental risks of plutonium that we have to examine is that if it is made into a weapon, the weapon is a weapon of mass environmental destruction. So it's a very important environmental impact to avoid plutonium being used as a weapon.

And this is at the heart of the contention that we've had accepted, and something we've been going around and around through every piece of the process we can find, is we need to look at materials control and accounting before the EIS process is complete.

And I'm very concerned that the formal process would end before significant - I mean, look

how long the operating license - DCS is deliberating under this. It's going to be full of information, and it needs a process in which the public input is protected. So it's great that the NRC, you know, will take care of business. But when we lose our mechanism to follow that process and help form that process, that is a loss to public rights. And actually we think it's illegal. And so we will continue our legal challenge on that point.

Let's see. The immobilization issue. Let me see, did I cover that? Yes.

Okay, now we've got the problem of orphaned material, which you mentioned tonight, as well. That's what we call it, "orphaned material." In the sweeping change that was made to put the junk plutonium into the MOX program, DOE, itself, said that some of the plutonium is not desirable for MOX, and so it ends up not dispositioned. Now, DOE needs to do an EIS on this. There needs to be an EIS on this.

Now, I wanted to comment on Mr. Hull's remark that memorandums of understanding are public documents. And that's all well and fine. But there aren't any on the MOX program, and that is not fine. And the only one that I know about is one that would deal with security, which is supposed to come down

later and might help GANE get a security clearance.

Nobody even knows where we should go for one yet.

Now, this is a problem. And you said something tonight that just stopped me in my tracks. That you're getting your - your interface with DOE is through DCS. And the only thing that comes to mind for me is, "Mommy, Daddy said I could go on the ski trip with the college guy." Well, unfortunately, mommy and daddy talked, you know, so that didn't work that well. And that is just not appropriate. It's just not appropriate. DCS is not even a licensed nuclear entity yet, so we cannot be taking their word for it on what DOE said. Which is the way I'll segue into the waste solidification building.

We have a few problems with this, besides our desire of what would happen, which would basically be that it not be treated in concrete which we think will not hold up. But there's some basic problems. First one is, DCS said DOE is going to do this. Now, we haven't seen an EIS from DOE, we haven't seen an item in their budget. This needs to be way firm before we start producing MOX fuel. We got to know for sure about that.

And then there's some issues beyond even DOE's commitment at SRS to deal with the waste, which

would be will WIPP (phonetic) accept the waste. And that's a genuine issue. It's regulated by EPA. Its criteria was set before there was any talk of MOX. Certainly this whole MOX waste thing is just a couple of months old, and there's a lot of process, too, even if basically - well, we don't know for sure if it's classified as defense waste since it's a commercial venture. And there's a RCRA process, Resource Conservation and Recovery Act, that is a public process to decide whether MOX waste would be certified for WIPP. That's an appealable process. I mean, this whole WIPP angle is very, very - so you got to take into consideration the possibility of MOX waste not getting processed, or MOX waste getting processed and never leaving the site.

We got some reactor problems that you should look at, and one is the need - well, there's conflicting reports on whether we need two new reactors or three new reactors. There's no reactors that have been named for this. So there are questions. What happens if rushed MOX fuel containing weapons grade plutonium is backing up on the site, going nowhere, because reactors didn't get licensed, because reactors were never named?

I think there's questions about - from

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other facilities, the PDCF. You can't be preparing plutonium pits for processing in a MOX facility faster than the MOX facility can process it. You've got to watch out for your scrap backing up. In France they generated so much scrap that they - that it swamped the system. They have got scrap plutonium, essentially weapons grade, backed up, trying to put it back into the hopper to make MOX pellets. There's a problem, coordination with the pit disassembly, coordination with the reactors. All that has to be laid out.

Because the beauty of NEPA, and this is my main benefit, I would say, as - for doing this legal process, is our legal advisor is a NEPA expert. NEPA is fabulous. It's new. It's just out since the '70s. It protects the public. It protects us against policies from agencies that haven't considered the environmental impacts. Ιt makes look us at alternatives, like immobilization, that miqht better down the road, even to the socioeconomic benefits of more jobs.

And it protects us from agencies not - you know, from gaps between agency interface that doesn't work, or even overlapping, where the right hand thinks the left hand is doing it, and also from gaps in steps

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1	in an elaborate process, like plutonium. And I think
2	it's fair to say that it's really hard to overstate
3	the complexity of processing plutonium, and the
4	hazards in processing plutonium. And where it was
5	said tonight that the NRC has experience in licensing
6	plutonium facilities, it's not that much, and it was
7	a long time ago. And one of the facilities that got
8	licensed never operated at Barnwell, South Carolina.
9	The other one was associated with Silkwood, and I
10	think that probably says a mouthful.
11	MR. CAMERON: Glenn, can I get you to - to
12	wrap up.
13	MS. CARROLL: Wrap it up?
14	MR. CAMERON: Your comments are right on
15	to those two questions. So I think you could - if you
16	could just wrap it up.
17	MS. CARROLL: Okay, yes. So there's one
18	other thing I haven't covered yet which is also
19	associated with the waste facility, and that is the
20	hazards of red oil buildup. And the - Duke Cogema
21	Stone & Webster pretty much laid out that they have
22	all these bases covered, but the fact is, is because
23	they assume the bases are covered, they haven't
24	analyzed an accident, which is a potential. And the
25	NRC staff is also on that job.

1 have to look at environmental 2 explosions, consequences from red oil 3 explosions, how to mitigate them, how to respond. And 4 also we need to look at Cogema's environmental record. 5 We're looking at their - way they do, you know. We're borrowing from their processes. We need to look at 6 7 the environmental results from using those processes. And I'll write a letter if there's anything I forgot. 8 9 MR. CAMERON: All right. Thank you very much, Glenn. 10 11 Mr. Ed Arnold? 12 MR. ARNOLD: Good evening. My name is Ed I'm the Executive Director of the Atlanta Arnold. 13 14 Chapter of Physicians for Social Responsibility. We 15 have a national organization of Physicians for Social Responsibility, about 20,000 members of physicians, 16 17 professional health care providers, and supporters across the country. And we're the U.S. affiliate of 18 19 the International Physicians for the Prevention of Nuclear War. 2.0 21 Our - one of our missions is to eliminate 22 weapons of mass destruction. So I think you can 23 understand that we're delighted that we're dealing 24 with plutonium and doing our best to get it out of

circulation.

Another mission we have is the achieve a sustainable environment. On that score, I think we have - I'm really pleased that this EIS is being undertaken so that we can find out - one thing I'd like to do is compare it to something that happens to all of us as we go to our physicians. I'm not a physician myself, I'm a health educator and - and administrator. But I recently went to the doctor and said, "Can you tell me whether I'm in good health?" I didn't go in and say, "Tell me I'm in good health." I heard the question asked there - there isn't a record of decision on the chart. What happens, what's the outcome. And the answer I heard was that the outcome would be that there would be a I mean, is that really true? license issued. Is there - isn't - doesn't the NRC have the option of saying, "No, we're not going to do this MOX thing"? Yeah, and I - that's an MR. CAMERON: important enough issue that we should just state it clearly on the record. The record of decision is the NRC's decision on whether to grant the license. the record of decision could be a denial of the request for construction authorization. So we should not have any ambiguities on that. In other words, we

do not have to grant the construction authorization.

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1 If the regulations are not met, then there will not be 2 a grant of a construction authorization. MR. ARNOLD: Okay, good. My physician in 3 4 a previous physical said, "You're in typical health," 5 or something like that. And I said, "Wait a minute. I mean, you 6 7 know, I'm okay or not okay? I mean, what - what is 8 it, and compared to what?" Now, it seems to me in this EIS process: 9 Compared to what? What are - what - MOX compared to 10 11 what? If you're not including a comparison to 12 something, such as immobilization which was on the docket before and has been taken - how about 13 14 subjecting that question about immobilization to a 15 You know, if - if my doctor said, second opinion. "Oh, I don't know whether you're in such good shape," 16 17 I'd say, "I feel fine. I think I'll go ask another 18 19 doctor, " you know. How about a second opinion on that 20 discounting immobilization as an alternative? And is 21 MOX okay compared to what? What other options? 22 mean, doesn't the NEPA process require that other 23 options be evaluated fully? So let's evaluate the 24 other options. PSR has a brief on plutonium resolution 25

something into the record here? I think we'll MR. CAMERON: Yes. Yes, if you'd li to MR. ARNOLD:we'll write subseque	ke
4 to 5 MR. ARNOLD:we'll write subseque	ke
5 MR. ARNOLD:we'll write subseque	
	nt
6 comments, but	
7 MR. CAMERON:we'll attach that.	
8 MR. ARNOLD:I'll leave this with yo	u,
9 then.	
MR. CAMERON: Great. Thank you very muc	h.
MR. ARNOLD: Thank you.	
12 And in the public health perspective,	it
just seems to me that if - if this is considered as	if
you're going to the doctor and asking the question	n,
"Is this a good plan and is it healthful for t	he
community?" perhaps there's some additional question	ns
that'll come out, if that process is undergone.	
Once again, thank you for the opportuni	ty
in coming down to North Augusta for this.	
MR. CAMERON: And thank you for being he	re
21 tonight.	
We're going to go next to - is it Mr.	-
23 Mr. Chaput?	
MR. CHAPUT: Yeah.	
MR. CAMERON: Ernest?	

1 MR. CHAPUT: Ernie, here.

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MR. CAMERON: Oh, it's Ernie. Ernie. All

right. Are you going to give us some comments?

MR. CHAPUT: I have a few comments, yeah.

MR. CAMERON: All right.

MR. CHAPUT: And I'll - I'll clean these comments up and formally submit them. I've just got some notes here.

I just want to go back and - and ask everyone to refocus on why we're here. The issue is, as was pointed out by several people, and, I mean, we're in violent agreement, except we're not agreement with this thing. What are we going to do with the surplus weapons grade plutonium that is now coming available with the United States and Russia? That is the question. This question's been studied by people certainly smarter than me, probably smarter than many of the people in this room. And a national consensus, evolved around the National Academy of Science report, says the safest way to make sure that that material is the least likely, the least capable for use in a weapon of mass destruction is something called the spent fuel standard. In other words, you take that material, you irradiate it, you make the you get the plutonium as reactor grade, not weapons

grade, not near as capable. You put it in spent nuclear fuel. Material is very, very hard to work with, and it cannot be worked with - it has to be worked with behind six-foot shields, concrete shields. And that is a safer - that's the safest, most responsible way for - for trying to lock up this material. It's not - not good to babysit it. At some point you got to do something with it.

MOX is okay if you can't burn it in the reactor. But MOX you can extract the plutonium back out of it, and you don't need six-foot thick concrete shields to do that. You can do that in a relatively benign kind of a way that - that is not transparent. It's something that is a lot simpler, technically, than try to reclaim plutonium from spent nuclear fuel.

So there's been a consensus by a lot of people that says the right thing to do is take that surplus plutonium, fabricate it into MOX fuel, burn it in reactors. That's how you render it least attractive to somebody to use, by either another nation, or from a subgroup, or for - or for malevolent purposes.

The cancellation of the plutonium immobilization project in my mind makes the MOX project that much more important. There is no

alternative to MOX. And by that, I mean in an NRC environment, if I come in to license a nuclear reactor, does that mean that NRC should say, "Why don't you build a coal plant instead?" No, that's not what it means.

The options that are available are MOX or no action. DOE and the national - you know, and the - and the national strategic decision-making process says we're not going to do a plutonium immobilization. I mean, that causes a little bit of problems to some of the people in South Carolina on those two metric tons. That'll get resolved. That will get resolved.

But to - to force a plutonium immobilization back on the table, an option which is less attractive and less - less purposeful than MOX, is not the right answer. It's not on the table; should not be on the table. My answer to that is: No, that is not a - is not part of a - of the alternatives.

Thirdly, this is not a jobs program. This is a program to try to make this nation and this world safer. I don't care if this stuff goes at Pantex, I don't care if it goes to Rocky Flats, I don't care if it goes to Aiken, South Carolina. It just needs to go someplace.

Those reviews have been done. And I've argued long and hard that Aiken, South Carolina, is the right place to do it. It's got the right facilities, the right people, and the right infrastructure. But if some other site has said that's the right place to do it, that's fine. The important thing is let's do it.

I guess to - the environmental report that's been submitted, as I understand it, says you got very minimal environmental and safety impacts in normal operations. It's difficult to measure the impact of the site in an accident environment. The - the consequences are well within applicable - well within applicable standards. The - the waste that's been talked about is a very small amount of waste when you look at what's been going on.

The thing I don't understand is they're talking a lot of deal about the 70,000 gallons---take your word for it---that goes into the waste - the new waste facility. How much liquid waste does not go into the liquid tanks, behind the liquid tanks? There's an offset somewhere. It needs to be dealt with like that. But the important thing is that waste, by the analysis that's been done, can be handled safely with no environmental impacts.

1	I guess I would just end up by - by a
2	couple of things. Number one, I think we're all in
3	violent agreement that something needs to be done with
4	surplus plutonium. And I would agree with what Mary
5	said earlier, is what we want to have happen is for
6	NRC to do a thorough review during - using the best
7	science. And I think those were your words, Mary, and
8	I - I totally agree with that. The - the Duke Cogema
9	people that submit the environmental report, use your
10	best review and your best science to make sure they've
11	done the proper analysis and done - you know, run the
12	numbers correctly.
13	Play that against the - the applicable
14	regulations and standards that you use in the
15	protection of the public health and safety and the
16	environment, and let the chips fall where they may.
17	I think you will find it meets the requirements.
18	Thank you.
19	MR. CAMERON: Thank you, Ernie.
20	Let me go to Mr. Don Moniak now. Don?
21	MR. MONIAK: You said I have 20 minutes;
22	right, Chip? Twenty-five (25)?
23	MR. CAMERON: No, actually
24	MR. MONIAK: Okay.
25	MR. CAMERON:I think it was

MR. MONIAK: Five. Yes. I understand.

Okay, my name is Don Moniak. I live in Aiken County. I moved here two years ago to work for the Blue Ridge Environmental Defense League. Prior to that, I spent four years in Texas near - in the Amarillo area, working for a group called STAND that monitored the Pantex Nuclear Weapons Plant.

So, when I started seeing, you know, in 1998, four years ago and a month, there were two other hearings - actually there were four hearings those two weeks in August. And one of them was in Amarillo. And there was one in the afternoon, there was one in the evening. And one of them was in North Augusta, I believe. And there was one in the afternoon and one in the evening. And they were very crowded. They had 300, 400 people in Amarillo showed up; I understand 6or 700 were at each one of these meetings. And they were loud and boisterous. But that's because it involved the competition for new federal pork. Call it MOX, immobilization, what-have-you. You know, it was just strictly an economic discussion, and a highly emotional one at that. At Pantex they'd bash SRS; at SRS they'd bash Pantex, even though without one or the other there would have been no victory in the Cold I get rather tired of hearing there here, how War.

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SRS was instrumental in winning the Cold War. Because everybody who worked there should know that it was a team effort. It involved numerous facilities. it's really kind of a - I guess it must be a rationalization or something. But - but meetings degenerated, so these ones have been a little more - more interesting because there's no controversy over who gets what. And a year ago today almost I was in this room going through the hearing process with the NRC's Atomic Safety Licensing Board. I submitted something like 30 contentions. Two of them were accepted, barely. And I was whupped at the end of it. It's a very rigid process, and I really admire the licensing board, especially when they chew out the NRC staff and bring them around in circles and twist them, and it's - it's just fun to watch. Because they're very sharp people. It's just - I can only sit there and be subservient, which is uncommon for me.

(Laughter.)

MR. MONIAK: So I point that out because the hearing process is a very, very instrumental part of this - of this review, NRC review. And if anybody wants all the information for that process, I'll give it to you in a CD-ROM at cost.

So the goal for this project, according to

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the environmental report, the purpose is to - almost the sole purpose is to - need for the facility to propose action issuing a license to possess and use special nuclear material in a MOX plant is essential to successful implementation of a joint U.S.-Russian nuclear disarmament policy.

And it's funny, because this is the sole purpose and need for the program. If the NRC refuses to evaluate the situation over in Russia and to see whether Russia is anywhere near as far along as this project is, in terms of meeting that agreement, and that has to be done in this project.

And I also argued a year ago, during the scoping meetings, that you have to - it's time to tell us just what the risk is from some - of somebody stealing plutonium that's stored in hardened facilities surrounded by well trained paramilitary forces like Wackenhut, stealing that plutonium and then waltzing off with it somewhere and - and successfully building a nuclear weapon. I mean, what is the risk? What's the probability? We know what the consequence of that could be, but what's the probability?

This is supposed to be a risk-informed process. Otherwise, the entire basis for this program

is emotional in nature. It is a fear of somebody stealing plutonium, making a weapon. And that's a legitimate fear. But taking care of 34 tons here isn't going to - isn't barely going to make a dent when you have - Cogema has almost 100 tons, and British Nuclear Fuels has almost 100 tons of so-called reactor grade plutonium which is perfectly suitable for nuclear weapons, it's just that weapon states prefer to use military grade, which is mistakenly, I think, called weapon grade. Everything's weapon grade.

So I want to submit a report, because that - the purpose is to meet the Russian schedule. And so I've written this report under contract with Blue Ridge Environmental Defense League, because I - I quit my salaried position, because I was fed up with the Nuclear Regulatory Commission's process. It just - I was - I was just like completely tied up in knots. You had to argue these almost undefinable distinctions in the law. The regulations are - they even admitted at the hearing last year that the regulations are confusing. And then you have to simultaneously argue technical issues. And I quite frankly couldn't take it anymore, so I left and said, "The hell with this. I'll research it."

And in the past several months we've got some information through the Freedom of Information Act. And specifically we're issuing a report that discusses the high consequence, high probability risks that have been identified by Duke Cogema Stone & Webster since 1999-2000 for this program, many of which have come to pass; specifically, the massive change in the baseline for the feedstock.

Just three, four quick points on that.

One, Oconee Nuclear Power Plant has been under consideration for MOX as an alternative or a backup since 19 - since 2000, April 2000. It's almost - DCS considers the probability to be almost certain that there will be delays in this program that will cause fuel disruptions.

These are before the MOX plant starts. In which case, they already have proposed European MOX fuel fabrication for the initial batch. Or after the MOX plant starts, that the PDCF might not come on line. In which case, they will have to possibly procure emergency supplies of high - I mean, low irradiation induced (phonetic) uranium fuel, which is really not a very good business strategy. And it surprises me that Duke remained in the Duke Power remained in the program, in spite of this high risk,

when Virginia Power pulled out. And Duke Power does have an exit strategy, and there is a high certainty that one of those reactors will be withdrawn.

There's 25 open risk items as of December 2000, many of which were long-term risks. They took care of the - the low level risk, moderate level, for the most part. And now it's just the high level risk, such as DOE changing its mind again and forcing the engineers to redesign the facility. Because it's going to be built.

I do know one thing. I don't agree putting ideology aside, with Cogema and the other
industry forces, Cogema is a very disciplined
organization that never would have allowed that kind
of thing to happen or would have been far less likely
to have allowed it. Department of Energy does this on
a routine basis. They just screw up. And whether
it's by policy or design is irrelevant. It's costing
us millions - hundreds of millions of dollars.

So, I want to finish. In regard to alternatives, the no-action alternative is just what it says. It remains in storage, which DOE's evaluated that option and established that it's a very viable alternative. It just doesn't meet the U.S.-Russian agreement. But then, of course, Russia's not meeting

the U.S.-Russian agreement, either, so what's the point of it.

It's important to note, too, that ten years ago, when the National Academy of Science came out with this report, Russia was even - its materials were far less secure. And there have been tremendous upgrades in that country. Whether or not they've been sufficient is unlikely. But it's not the same situation as 1994. They built a huge new allegedly state-of-the-art, for that country, plutonium storage facility that will hold something like 20,000 plutonium items at Mayak.

So, and most people in Russia - on the one hand many of them says that they really don't see an encourage for MOX, although in 1990 they began pursuing the process in cooperation with Cogema and Siemens, France and Germany, long before the U.S.-Russian cooperative efforts started. So this - this statement that MOX - Russia won't do MOX unless we do is - is just purely wrong. Because they'll do MOX if somebody gives them the money, whether or not the U.S. does anything or not. They've got 100 more tons than we do. What do they care.

So the other alternative that should be evaluated is not a return to the immobilization

program that the Department of Energy managed to sabotage either through - by intent or by incompetence. The evaluation should be to make plutonium MOX fuel pellets, make MOX fuel that does not meet commercial requirements for re-irradiation in reactors, as advocated by Frank von Hippel a year ago in the Bulletin of the Atomic Scientists.

Several years back, in the SBDEIS process, I advocated that, based on an article written by Les Jardine at Livermore. And I was about half-joking when I said that Los Alamos had a proven ability to make bad MOX fuel. They had - for like a year all their batches failed. You couldn't even make a test batch. So I said Los Alamos has proven that it's technically feasible to make bad MOX fuel that you can then store, and perhaps later meet the spent fuel standard, but that remains - some other process has to be found.

The only difference between diluting it in a matrix, whether it's MOX or immobilization, it's a ceramic matrix. And spent fuel standard is one security class. DOE has a graded approach to safeguards, and Level D is that diluted stuff that's suitable for being dumped in WIPP, which, incidentally, the National Academy of Science says

1	that was a fine idea, too. Or at least one that
2	should be pursued.
3	MR. CAMERON: Don, do you
4	MR. MONIAK: So that's a process you need
5	to evaluate, is making bad MOX fuel.
6	MR. CAMERON: Don, can you get to your
7	MR. MONIAK: Either storing it here, or
8	sending it to WIPP. And if you don't make that
9	evaluation, then you haven't - you've done the same
10	thing DOE did, which is gone with the one alternative.
11	MR. CAMERON: Thank you. Thank you very
12	much.
13	MR. MONIAK: One more thing. That PDCF
14	and waste plant, how can they run that when the PDCF's
15	going to be three years later than the MOX plant?
16	Thank you.
17	MR. CAMERON: We have three final
18	speakers, and then I'm going to ask the three NRC
19	staffI don't know who's going to take it onbut
20	to try to give people a clear idea about what the
21	distinctions are between high alpha waste and high
22	level waste.
23	We're going to go to Jack Uhrich right
24	now, and then Lee Poe, and then finally Laura Bagwell.
25	MR. UHRICH: Good evening. My name's Jack

Uhrich. I live in Aiken. I'm new to South Carolina. I moved here last November to be with my daughter and son-in-law and three grandchildren, from New Mexico. And I want to tell you all, if you're planning on sending that to WIPP, if you think that your time table's a little backed up now, they were going to open WIPP in 1980. It opened in 1999.

And when I mentioned today, talking to some friends of mine back in New Mexico, that they're planning to ship MOX waste to WIPP, they were not only very surprised, they were very pissed off. And I can tell you that it's not going to go there easily. And I can say that based on five years of my own life spent fighting WIPP and watching others spend many more years doing that. And they're still at it, and they still plan to go on.

I would hope that people in South Carolina would take some lessons in that, because if you look at a - a map of the United States color-coded by levels of radioactivity, I assure you South Carolina is a sacrifice zone, but New Mexico takes the prize. There's - the highest level of radioactivity is two black dots; one where Oak Ridge is, and the other where Rocky Flats was, and still is, in reality, and will be for the next 500,000 years in terms of heat.

The other color is a dark blue, and that takes up almost the entire state of New Mexico. that's due to our actions out there. And Jimmy Carter actually came out and thanked us for being a national sacrifice zone in 1979, so we know that we're And you are, too, official. and so grandchildren. Because we live, I understand, in the county that has the highest cancer rate in South And that's not going to change easily. Carolina. Certainly not in our lifetime. Perhaps if we start to take some actions on these issues, it might change for our children and our grandchildren.

But what's being discussed tonight doesn't hold out much hope for me on that. Some gentleman said there's a national consensus about this, and I ask a national consensus of who? Of which scientists, and whose payroll are those scientists on? I would like to take a survey of scientists that really know what they're talking about that are not being paid by DOE, the NRC, Duke Power, Westinghouse, so that we could have a really objective evaluation of these alternatives.

My experience, when I talk to scientists that are not on these kind of payrolls, is they come to very different conclusions than those that are on

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government payrolls or on Westinghouse's payroll. And, by the way, we share Westinghouse at WIPP just as you do, and they've been just as nice to their workers as they have been here. I've been reading for about ten years about how nice they are to the workers out here.

He also said this is not a jobs program. What people in their right mind would put up with this insanity if they weren't desperate for jobs. That's what this is all about. And, as been pointed out, it's - it's not even the best way to get jobs, but that's because it's also about power. And because they want to start up the nuclear reactor program again. They want to keep commercial nuclear power going, and this is another way of doing it. That's my opinion, anyhow.

We've known, according to Ralph Nader, since 1953 that if we pursued alternative sources, non-dangerous alternative sources---wind, solar, et cetera, hydrogen---that in about 25 years we would have stopped our dependence on foreign oil. But instead, two years after the government was told that, they started Atoms for Peace. And 25 years later we still were not - in fact, 50-some years later we still are not free of our dependence on foreign oil, and we

have about a \$2 trillion debt that we didn't have in 53 because we've poured about that much money into - into military and commercial nuclear energy, and what do we have to show for it except a big pile of manure, only its very hot manure and won't go away for the next half million years.

I want to just address technically one of the questions here Ι understand in terms of transportation. And just to give you a little idea of seriously the DOE takes its transportation responsibilities, because you're going to be shipping this stuff from all over the country to Savannah River, some of which I understand is plutonium in dust form. And at least from what I've read, it takes about 3/15 millionth of a gram in your lungs to do you in eventually with plutonium. That's the size of a one grain of salt cut in about 100 pieces, if you can imagine that. And we were told in New Mexico that there was going to be about 70 accidents for 25,000 shipments, and that there was going to be one release, one accident where there was releases. Except then it turned out that the government accounting office revealed that the Department of Transportation figures on which those figures were based were off by a factor of ten, so actually it's possibly 700 accidents and

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more like ten releases of radioactivity.

In fact, since 1999, there - they have not been doing very good on their - their track record in terms of shipping. They've had 89 safety violations just in New Mexico alone, and the New Mexico nuclear groups are suing to get the figures for the other states that they're coming through. Because they're coming from Rocky Flats, they're coming from Idaho, they're coming from Los Alamos, they're coming from—what is it?——Washington. So eventually they're going to be coming through 22 states, coming to a town near you.

And what are they going to be doing? What are they going to be spreading? Well, one situation, a drunk - it wasn't any fault of theirs, it was human error. A drunk driver ran into a WIPP truck. And he did it hard enough that the internal part of the cask was broken. It didn't breach the outside, but it was bad enough that they sent it back to source, rather than continue their journey.

In another situation, the driver fell asleep at the wheel, crossed over the median strip and started going towards oncoming traffic before the other driver, who was sleeping - supposed to be sleeping, came awake and realized what was happening

and pulled it to safety.

In another situation which has not been reported, but drivers were seen in a populated area standing by the truck where kids and family - we have this on video - or friends of mine have this on video tape, smoking a cigarette, where clearly it's against the rules to be smoking a cigarette within 25 feet of the truck. And there are all kinds of radiations emitting from the truck, so it shouldn't be standing for a long period of time around a population.

This is just some examples that I've heard just talking to friends over the last few days about what's going on in New Mexico, that that they've done just in a few years. So this is a long-term project. This is supposed to go to - to 2019; is that right? Seventeen (17) years? Is that the length of the project? So, and that's with a fairly heavy group of watchdogs out in New Mexico. And I'm glad to see that there's quite a few watchdogs here, and I hope you keep it up, because obviously it's going to be needed.

Just one other thing, is that you might want to be checking out what are your first responders in the state. Are they based on volunteer fire departments? Have they been informed of what will happen if there's a breach of a plutonium shipment?

And, by the way, TRU waste is very dangerous. And so don't cover it up with changing the language. Thank you.

MR. CAMERON: Thank you. Lee? Lee Poe?

MR. POE: When I came here tonight I

MR. POE: When I came here tonight I didn't plan to - to make a comment, but I do feel that - that I need to comment. I need to comment first on - on these over here, and I will do that. But I would like to thank you for providing us the opportunity to come here and to listen and to learn and to have an opportunity to come. And I'll have to say, I've listened a whole lot and my ears are tired, so I hope to be short.

I would like to ask you or suggest to you that the there be a public input early in 2005 on - before the decision is reached, so that all of us have the opportunity to have looked at not only the design, but also the plans for this activity.

Now, I've heard a lot of discussion here tonight, and much of it centers around the Department of Energy. And I think that the Department of Energy should be part of that particular 2005 event, as well as the Duke Cogema team, so that everybody's here at one time and available to talk and to answer questions.

The other thing I'd like to ask is that rather than have the 45 day comment period when the draft EIS is issued, that you extend it at least to - to twice that, a longer time, because what you've got to do is, you've got to take these documents that you're going to issue to us, in terms of a draft EIS, you got to look at them and understand them, and - and then it's got to soak in a while, or at least it does in my - for me. I can't make, by looking, a decision that everything is - is hunky-dory.

Now, the comment relative to these two questions over here, in my opinion, the no-action, there is only one no-action, and that is to continue to store the material at the location that it is for some long period of time, centuries. 10,000 years is what WIPP - I mean, what Yucca Mountain used in their no-action alternative. Something similar to that, that's similar to the life of this plutonium, which is even longer than that, needs to be considered. And there needs to be some consideration given to how long will we do a good job of managing these plutoniums during that no-action time period.

So, in my mind, there is no value in doing a vitrification process no-alternative when the government has said we're not going to do that, unless

1 somebody out there has got deep pockets and is willing 2 to fund it, and I doubt that. I doubt that any of us have that capability, other than our U.S. government. 3 4 And the other comment that I - I read this 5 - this bottom thing here. And - and I don't really know what that's asking me to do. So the thing I 6 7 thought about was kind of similar to what Don Moniak It would seem to me that somewhere in here 8 said. 9 somebody ought to evaluate the theft and use of these plutoniums either from the MOX or from the no-action, 10 11 either case, because that's the driving force for this 12 EIS. The last comment also on that - that 13 14 bottom part there, it seems to me that one alternative 15 might be to look at what happens if the Russian 16 government doesn't do this or - or some playoff of 17 I know again I wanted to thank you guys for that. being here, offering us the opportunity to come and 18 19 listen and learn and - and speak our piece. 20 you. 21 MR. CAMERON: Okay, thank you very much, 22 Lee, for addressing those - those questions, also. 23 Laura, would you like to give us some 24 comments, and then we're going to have Mr. Willoughby. 25 And we need to be out - we need to be done by - not

1 out, but done by 10:30, so... 2 MS. BAGWELL: All right. ...go ahead, Laura. 3 MR. CAMERON: 4 MS. BAGWELL: Like Mr. Poe, I didn't plan 5 speak tonight, so I'm going to keep extemporaneous remarks real brief. It's late. I want 6 7 to get home, too. First of all, I really want to commend all 8 9 of us for this dialogue. I mean, despite the fact that public participation is - is required, I think 10 11 it's very beneficial. I think it lends a lot of 12 credibility to this process, and I know I've learned a lot tonight. 13 14 Ι point to, for example, GANE's 15 involvement in this process as an example of a very positive involvement. I don't think anything that 16 17 we've talked about tonight is a foregone conclusion. And - and I think I'm going to open my comments with 18 19 that remark and I'm going to close with that remark. 20 Secondly, despite the fact that I work at 21 the Savannah River Site and I'm very proud of my 22 efforts out there to help clean up that place, I'm not 23 here to cheerlead for the Savannah River Site or for 24 MOX in any way. I'm just here to be an interested 25 participant.

environmental or political standpoints are, I find that when a bunch of diverse people, such as people who are represented here tonight, get around the table to address complex issues, two things happen. The first thing that happens is that we find out that we have more in common than separates us. And the second thing we find out is that, you know, the problems are difficult. That's why they're problems.

In regard to those problems, and especially in regard to the complexity of the plutonium disposition issues, again, maybe just to echo Mr. Chaput's remarks, you know, all of these issues that we've raised here tonight are very complex. For example, is immobilization the way to Is MOX facility treatment the way to go? That's a complex issue. There are opponents and proponents for each of those. But again, I think the one thing that we in this room, all of us can agree on, is that something needs to be done to manage this plutonium. This is a very important international issue. Ιt doesn't just affect the people in this room.

And finally, or maybe penultimately, with all due respect for the positions of organizations like GANE and - and other groups here tonight, and no

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1 matter what our respective positions are on nuclear 2 energy and nuclear energy use, I think it's important for us not to function in a vacuum. It is a fact that 3 4 when we turn on the lights in South Carolina, that a 5 significant percentage of those photons come from nuclear energy, nuclear energy plants. And in an era 6 7 when energy shortages such as were seen last year on 8 the West Coast and such as may continue in the 9 Northeast plague us, you know, that's a point that we need to deal with, regardless of what our positions 10 11 are on those issues. 12 And - and lastly, again, just to close where I started, I don't think any - any of these 13 14 issues that we've discussed tonight is a foregone - or 15 are a foregone conclusion. I think this process is very beneficial, and I thank you for - for letting us 16 17 be a part of this. MR. CAMERON: Okay, thank you very much, 18 19 Laura. 20 Our final speaker is Mr. Willoughby. 21 Willoughby? 22 I would preface MR. WILLOUGHBY: 23 remarks with two comments. One, I have been one way 24 or the other in nuclear energy business for 45 years,

everywhere from chasing bombs to commercial power

reactors. The other is that it's my personal belief--that's what it is, a personal belief---that the MOX
fuel is the best way to make the plutonium so that it
cannot be used by anybody else for purposes of mass
destruction.

The - with those said, and to address the questions that you have, one, I agree with Mr. Poe that a no - though he may be surprised, that the no-alternate - no-action alternate is in fact a storage of plutonium at the present sites. And this has to look at the long-range problems, it has to look at not just what is good for South Carolina, it has to look at what's good for the United States. And that is what this EIS should address. Is not a parochial concern, but, in fact, a national concern.

As a - a reasonable alternate to be evaluated, in this case I disagree with Mr. Poe, and I think that the EIS should consider that the immobilization be considered as an alternate. If that comes out as the proposed solution from your EIS, then the federal government is going to have to find the money and some agency to do that, whether it is DOE or some commercial facility under the auspices of the NRC. So then the - in all cases, what in addition would be considered, the national viewpoint, it also

1 what is looked at (sic) and evaluated as part of any 2 of the process has to be the international situation. 3 Thank you. 4 MR. CAMERON: Thank you very much, Mr. 5 Willoughby. We have a few minutes left, and I know 6 7 there were a lot of questions raised by the high alpha versus high level waste issue. And could we have one 8 of the NRC staff come up and just try to give us a few 9 minutes explanation, if we could all just listen 10 11 patiently to the explanation. And then we'll go on to 12 you for questions to make sure that it's - if it's understood. 13 14 Tim? 15 MR. HARRIS: Well, I'll try to keep it And if - if we've got to get into processes 16 17 and isotopic compositions, I may turn it over to Dave. If your looking at simply - I mean, it's 18 19 maybe a - a case of, one, where the waste comes from. 20 Spent high level waste is spent nuclear fuel, and 21 where that comes from a reactor after the fuel has 22 been used to make electricity. Highly radioactive 23 material. 24 In this case, the high alpha waste stream 25 comes as part of the MOX process where some of the

1 impurities that are now with the plutonium are being 2 removed, and that generates a waste that we're terming 3 high alpha waste, which is not high level waste. 4 As far as the - the differences in - in 5 danger, hazard, you know, with - with material, you know, all high level waste isn't - isn't the same 6 7 hazard. All high alpha waste or TRU waste isn't the 8 same hazards. I can't really - excuse me, give you a 9 price - you know, I'm sure there's some overlaps 10 But they are hazardous materials. 11 that's a simple explanation that - that hopefully 12 won't pose too many questions. And so, difference in how MR. CAMERON: 13 14 they originate, and there may be a difference in... 15 MR. HARRIS: There's - there's differences 16 in... 17 MR. CAMERON: ...the type of hazard, but they're both hazardous. 18 19 MR. HARRIS: They're both hazardous -20 hazardous stuff. 21 MR. CAMERON: Okay, let's - let's go out, 22 then, and see if anybody has any questions about that. 23 Don? Or a comment. 24 MR. MONIAK: High alpha activity waste is 25 defined as - you know, it's kind of like in the

1 middle; right? But... 2 In the middle of... MR. HARRIS: MR. MONIAK: In other words, it'd show up 3 4 - like up to 80,000 curies a year of americium 241 in 5 that, 24 kilograms a year of americium 241, so in a few years it ought to be enough to make a bomb, if you 6 7 separate the americium 241. Because you get - make the critical mass about 60 kilos, according to Los 8 9 Alamos. But that - that's important, is that that's a lot of americium. That - you know, you're not going 10 11 to be able to like create a - a market for smoke 12 detectors, are you? That's a little too much. (Laughter.) 13 14 MR. HARRIS: Was there - was there a 15 question in there, Chip, or ... No, I'm just commenting. 16 MR. MONIAK: 17 There's no way of explaining it. Okay, that's - that's a 18 MR. CAMERON: 19 Okay, we have your other, Mr. Uhrich? 20 MR. UHRICH: well, when - when you use the term "transuranic," I get a little confused. Because 21 22 the transuranic waste that was being shipped to WIPP 23 consists of plutonium contaminated waste, basically. 24 And there were all kinds of problems that would come 25 out of that. For example, there's explosiveness in

1	the canisters because you've got plastics mixing with
2	the plutonium, all kinds of different materials
3	mixing, molding together, creating - generating gases.
4	There's been documented a number of explosions -
5	explosions in transportation of some of those
6	canisters.
7	What type of problems are you going to
8	encounter with high alpha waste that would
9	differentiate the kind of problems you would imagine
LO	with high level nuclear waste?
l1	MR. HARRIS: Yeah, I
12	MR. CAMERON: Can anybody
L3	MR. HARRIS:I'll attend to the - the
14	last question which is - I don't have an answer to
15	that here tonight. We haven't done our analysis. So
16	I can't tell you the answer to the analysis that we
L7	haven't done yet. Hold - hold that question until
18	March and we'll have the answer, hopefully.
L9	The second question was - was the
20	definition of "transuranic waste," and I think that's
21	elements with C numbers over uranium 83. 92. Sorry.
22	And - and with greater than 100 nanocuries.
23	MR. CAMERON: I'm not sure how much that
24	means to people.
25	MR. HARRIS: Yeah, it - people.
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1 MR. CAMERON: But I guess one thing is, 2 are - is a component of high alpha waste TRU, T-R-U? 3 Is that - is TRU a high alpha waste? 4 MR. HARRIS: I think it could be. 5 MR. CAMERON: Okay. And - and, Dave or Tim, we - I think that the concern is what types of 6 7 hazards forget about the hiqh level waste Can anybody tell us just briefly what 8 comparison. types of hazards there are from high alpha waste? 9 10 Well, Dave is a certified MR. HARRIS: 11 health physicist, so I'll step down. 12 MR. BROWN: Just like with the mixed oxide fuel plant, the most important thing with handling the 13 14 high alpha activity waste will be making sure that 15 it's confined so that there's not a breathing hazard for workers in the plant, or for anyone else, for that 16 17 matter. There is also a direct radiation hazard, 18 19 the fact that there are gamma rays coming from the 20 So the processes that handle that waste will waste. have to be shielded to insure protection of workers 21 22 working in the plant. So there's protection to make 23 sure that the workers can't inhale any of that, and protection to make sure that they're shielded from 24

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direct radiation.

1 MR. CAMERON: Okay. We're going to go to 2 other - other people now. Mary, do you have a 3 question? 4 MS. KELLY: Well, I have a comment. think the - the confusion comes because early on high 5 level waste was arbitrarily defined as spent nuclear 6 7 fuel rods or the high level waste - liquid waste from reprocessing. One of the problems in South Carolina 8 9 is that the nuclear reactor parts, which are highly radioactive, are defined as low level waste simply 10 11 because of that arbitrary distinction, and they go 12 down into the Barnwell low level waste site. Okay, thanks, Mary. 13 MR. CAMERON: 14 MR. ROGERS: Just quickly, for the - for 15 the record, my comments. I'm Harry Rogers from Carolina Peace Resource Center. The 450-day run was 16 17 anecdotal. And the fact that Davis-Besse admitted that they placed production before safety is a matter 18 19 of record. So... 20 And the question I have is that the - the 21 volume the volume of waste, MOX 22 immobilization, do you know - do you know those 23 numbers? 24 MR. HARRIS: No, I can't quote those to They were in the old environmental 25 Harry. you,

1	report, the December 2000 environmental report, and I
2	- I can't speak to that.
3	MR. ROGERS: Because you haven't processed
4	the other
5	MR. HARRIS: I - I don't have a
6	MR. ROGERS:you're processing - the
7	processing of
8	The other part - the other thing I needed
9	to say, when you create additional waste, you have to
10	process more, and you have to do something with that
11	- you know, you have to do something with that waste.
12	It's not just a - it's just a - it's not just a
13	characterization of the waste, it's how do you - what
14	are you going to do with it.
15	MR. CAMERON: Okay, that's another point.
16	Not only where it originates but, I guess, where it's
17	going to go.
18	We got a couple minutes left. Anything -
19	I don't know if Mr. Uhrich had another question on
20	this high alpha-high level waste. Glenn, did you have
21	anything you wanted to say on this?
22	MS. CARROLL: Since you handed me the
23	mic
24	MR. CAMERON: Right.
25	MS. CARROLL:I would just say - and I

1	think Jack probably knows this, but I think he wants
2	to bring this out. I would say that the distinctions
3	on waste classifications are largely legal
4	distinctions, don't always, but loosely have something
5	to do with the character of the waste. And that MOX
6	waste is uncategorical. I mean, it's a new - or it's
7	a new beast. And so it's a legitimate question, and
8	it's something that potential host site may really
9	take issue with, how we have tried to define MOX
10	waste, and whether they think it should come there.
11	Okay.
12	MR. CAMERON: Thank you, Glenn.
13	Mr. Turnipseed, you're fine? All right.
14	Mr. Uhrich, one last
15	MR. UHRICH: Just the way I heard - what
16	I heard you say was that high alpha waste, you have to
17	protect both from inhalation and from the exposure; is
18	that correct? So - so, in a sense, it's more -
19	actually more dangerous than plutonium, because with
20	plutonium you're shielded by - you could shield from
21	plutonium radiation simply by something like a sheet
22	of paper or a cloth; isn't that correct?
23	MR. BROWN: The - Jack, the risks are
24	about the same. But you're right, the americium in

the high alpha activity waste does have a higher

1 direct radiation hazard than the weapons 2 plutonium that would be handled at the MOX facility. 3 MR. CAMERON: Okay. I'm going to thank 4 all of you for being such an engaging audience 5 tonight. Thank you. MR. HARRIS: Can we put in another plug, 6 7 Chip, for people to fill out the feedback forms? really want to get your feedbacks. 8 MR. CAMERON: We'll - we'll get that, Tim. 9 MR. HARRIS: Okay. I'll - I'll sit down. 10 11 MR. CAMERON: Thank you. 12 Thank you all. And thanks to - thanks, Harris, Dave Brown, for their excellent 13 14 presentations. Betty Garrett for doing all the 15 administrative work. Melanie, our stenographer tonight. And thank all of you. 16 17 I'm just going to turn it over to our senior NRC official here for just a word of - of 18 19 goodnight to all of you. And don't forget we do have those feedback evaluation forms will - that will help 20 21 us to learn what we're doing here. 22 MS. TROTTIER: Thank you, Chip. And I 23 will warn you first, I'm a morning person, so, you 24 know, no one ever sees me at 10:30. But, you know, 25 I'll give it my best shot.

1 First, I want to thank you all for taking 2 out your whole evening to come here. It is important We do need to hear your feedback. 3 4 I also want to tell you we're early in 5 this process. Remember that we haven't yet prepared the EIS. You know, we will be back, we will be 6 7 looking for your comment. I did appreciate the comment about extending the comment period. 8 Ι 9 personally have spent many years writing regulations, 10 understand that certain time periods create problems 11 for people. And we will look into that. 12 But I encourage you to keep being engaged. 13 It is important to us to have your feedback. 14 again, I want to thank you for coming out tonight. 15 Well, goodnight. MR. CAMERON: Great. (Whereupon, the hearing was concluded at 16 17 10:35 p.m.) 18 19 20 21 22 23 24 25