## **Official Transcript of Proceedings**

## NUCLEAR REGULATORY COMMISSION

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1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
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4	PUBLIC MEETING ON PROPOSED MOX FACILITY
5	DRAFT ENVIRONMENTAL IMPACT STATEMENT
6	+ + + +
7	THURSDAY
8	MARCH 27, 2003
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10	CHARLOTTE, NORTH CAROLINA
11	+ + + +
12	The Public Meeting was held in the Charlotte-
13	Mecklenberg Government Center, 600 East Fourth Street,
14	at 7:05 p.m., Francis "Chip" Cameron, Facilitator,
15	presiding.
16	PRESENT:
17	FRANCIS (Chip) CAMERON
18	LAWRENCE KOKAJKO
19	TIM HARRIS
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1	P-R-O-C-E-E-D-I-N-G-S
2	MR. CAMERON: Okay. Good evening,
3	everyone. My name is Chip Cameron. I'm the Special
4	Counsel for Public Liaison at the Nuclear Regulatory
5	Commission, and I welcome you all to the NRCthat's
б	one acronym we'll be using tonight for Nuclear
7	Regulatory CommissionI want to welcome you to the
8	NRC's public meeting tonight.
9	And our topic is the draft environmental
10	impact statement that the NRC has prepared to assist
11	the NRC in evaluating the application that we've
12	received from a consortium, Duke Cogema Stone &
13	Webster, better known as DCS; an application to
14	construct a mixed oxide fuel fabrication facility.
15	And it's my pleasure to serve as your facilitator for
16	tonight's meeting. And in that role, I'm going to try
17	to help all of you to have a a productive meeting
18	tonight.
19	And before we get into the substance of
20	the discussion tonight, I usually like to go over some
21	some items about the meeting process, why we're
22	here tonight, what the format and ground rules are for
23	the meeting, and to just briefly talk about the
24	agenda.
25	The agenda does not have a lot of moving

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parts, so it's a simple agenda tonight. And in terms of the purpose, one purpose is we want to make sure that we clearly explain what the NRC's process is for evaluating the DCS application, and to also talk about the findings in the draft environmental impact statement, and to answer any questions you have about the process or the findings.

8 Second purpose and most important purpose 9 is to hear any comments that you might have on the draft environmental impact statement. And it may be 10 11 that the information you hear tonight from the NRC or 12 any of the other people in the audience will help you to prepare any written comments that you might want to 13 14 submit on this draft environmental impact statement. 15 And the NRC staff will be explaining in a few minutes what that process is for submitting written comments. 16 17 But I just wanted to emphasize, anything that you say tonight will carry the same weight as a written 18 19 We are transcribing the meeting, and your comment. 20 comments tonight will be essentially in writing 21 because they will be on a transcript. It'll be a 22 written transcript. And we will make that available to whomever wants to have that -- that transcript. 23 24 The ultimate goal is to use the comments that we hear 25 tonight, in the other public meetings, and the written

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comments, to -- to illuminate our decision-making on this application.

3 In terms of format, we're going to have a 4 couple of brief NRC presentations to give you 5 background; question and answers from you. I know you'll have questions, and hopefully we'll have 6 7 answers, good answers. And the second part of the meeting is to give any of you who wish to do so an 8 9 opportunity to come up to the podium and give us some -- some formal comments. And I think we -- we have a 10 11 nice turnout tonight, but I don't think that we'll 12 have to worry too much about length of time speaking, but I would like you to hold it to ten minutes, at the 13 14 most. We were in North Augusta last night. We had a 15 lot of people. And I think we got out of there at 11:00. And, although that's -- that's okay with us, 16 17 we want to hear everybody, in fairness to all of you we would like to make sure that the meeting ends at 18 19 the time that we had promised it would end. So try to 20 be concise, if you can.

And in terms of ground rules, if you have a question, when we get to the question and answer, just signal me and I'm going to bring you -- we don't have our usual talking stick, we have -- I don't know what you would call this, but...

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1	UNIDENTIFIED: A lapel.
2	MR. CAMERON: A lapel mic. Thank you,
3	Mary. A lapel mic. I will bring this to you and get
4	your question, and the NRC staff will answer it.
5	When we go to the formal comments, I would
6	just ask you to come up here to the podium. And we
7	want to make sure everybody gets a chance to speak.
8	And I would ask that only one person speak at a time
9	so that we can get a clean transcript and, more
10	importantly, pay attention to whomever has the floor
11	at the time.
12	We do want to keep it informal and have a
13	discussion with you, so I would just say relax and
14	speak what's on your mind tonight. We have people
15	here from different parts of the the NRC. In
16	addition to the NRC staff who are in charge of
17	evaluating this application, we have people from our
18	Office of General Counsel, from our regional office.
19	And after the meeting is over, take advantage of
20	talking to them about any pertinent questions you
21	might have.
22	I wanted to to ask Adrienne Lester, who
23	is did all to logistical arrangements for these
24	meetings, to just come up and tell us about any
25	logistical details that you think people should know

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## Adrienne?

I would like 3 MS. LESTER: Good evening. 4 to you thank you all for coming out tonight. And I 5 just want to briefly go over the information that you picked out -- picked up out on the desk out there. 6 7 The first thing is the agenda. And behind that you have a facts sheet which just tells you what the NRC 8 is, what it does, and also gives you some information 9 10 on the MOX facility. And behind that is a very 11 important sheet, because it has where you can send your comments to, which are due back by May 14<sup>th</sup>. And 12 behind 13 the additional sheets that are just а 14 representation of the posters back there. So you can 15 just take that home with you and look over that. 16

The next sheet you should have picked up would be the slides that Lawrence and Tim are going to present tonight. And lastly is the public feedback form. And you can just mail that back to us, because the postage is already on there, or either you can give it back to me tonight.

22 So thank you. And we hope to hear from 23 you very soon.

24MR. CAMERON: Okay. Thank you very much,25Adrienne.

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1	Our two NRC presentations are first
2	we're going to go to Mr. Lawrence Kokajko, who is
3	right here. And he is the acting Branch Chief of the
4	Environmental and Performance Assessment Branch at the
5	NRC. It's in our Office of Nuclear Materials, Safety,
6	and and Safeguards. And Lawrence's staff is
7	responsible for evaluating the environmental aspects
8	of this this application. And before he assumed
9	this acting Branch Chief position, he was the the
10	Section Chief of something called the Risk Task Group
11	at the agency, which was looking at how risk should be
12	factored into NRC decision-making. He's been involved
13	in the reactor world, the spent fuel world at the NRC,
14	so he has a wide breadth of of knowledge that he
15	brings to his present position. And were were you
16	a licensed reactor operator?
17	MR. KOKAJKO: A senior licensed.
18	MR. CAMERON: Senior licensed reactor
19	operator. And Lawrence is going to give you the broad
20	overview on this project, and then we're going to go
21	to Mr. Tim Harris, who is right here. Tim is the
22	Project Manager for the environmental review on the
23	construction authorization application. He's been
24	with the agency for about nine years now. And his
25	expertise is in civil engineering, I believe. And Tim

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10 1 is going to walk you through -- walk us through the 2 findings in the draft environmental impact statement. 3 Those are the two presentations. 4 We also have Dave Brown, right here. Now, 5 Dave is the Assistant Project Manager on the safety evaluation on this construction authorization. 6 And 7 he's here to answer any questions on the -- the safety 8 side of the evaluation. So it's very important to understand that the NRC's review of this application 9 10 has an environmental component and it has a safety 11 And, although our focus is on the component. 12 tonight, environmental do know that we you're interested or might have comments on the safety side, 13 14 so Dave is with us to -- to help us out with that. 15 And with that, I'll turn it over to -- to 16 Lawrence. 17 Good evening. My name is MR. KOKAJKO: Lawrence Kokajko. I'm the acting Branch Chief for the 18 Environmental and Performance Assessment Branch in the 19 20 Division of Waste Management in the Office of Nuclear 21 Materials, Safety, and Safequards at the Nuclear 22 Regulatory Commission. And I'd like to welcome you to 23 this meeting on the NRC's draft environmental impact 24 statement for the proposed mixed oxide or MOX fuel 25 fabrication facility.

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I'd like to thank you for taking your time out of your busy day and evening to be here this evening, and we look forward to hearing from you. This meeting is one of a series of meetings---in fact, this is the third one this week---which are designed to inform the public about the draft environmental impact statement for the proposed facility, and to solicit public comment.

Adrienne said, 9 there are several As One is a set of slides, the agenda, facts 10 handouts. 11 sheet, and comparison of alternatives, as well as the 12 feedback forms. And we are especially interested in getting the feedback forms from you as well, this 13 14 evening, besides your comments on the draft. 15 environmental impact statement. We would use this information to try to improve these meetings in the 16 17 And you may either hand it back to an NRC future. staff member. And, once again, could I have the NRC 18 19 staff members raise their hand. You can give -- give 20 it to one of those people and we will take it back, or 21 you can mail it in the -- back to us. And it's 22 already self-addressed, and postage has been paid. 23 Also, if you'd like a copy of the draft environmental 24 impact statement you may obtain one here. We have a 25 limited number available. And if we run out, we will

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1	mail you a copy. Next slide.
2	Tonight there will be two presenters,
3	myself and Tim Harris of my staff. And we've included
4	our phone numbers and Email addresses. And please
5	feel free to contact us if you have any questions
6	after the meetings.
7	As I indicated, the purpose of tonight's
8	meeting is to get your comments on the draft
9	environmental impact statement. Before we hear your
10	comments, we'll provide some information on NRC's role
11	in the proposed project, and describe the National
12	Environmental Policy Act and the EIS process, and how
13	the EIS fits into the NRC's decision-making. Tim will
14	give an overview of the draft environmental impact
15	statement, and there will be time to answer some
16	questions before we begin to take your comments.
17	The proposed MOX facility would take
18	surplus weapons plutonium and depleted uranium and
19	make nuclear reactor fuel. Congress, in the Defense
20	Authorization Act of 1999, gave NRC a role in the
21	proposed MOX project. Specifically, the NRC has the
22	licensing authority over the MOX facility, so our role
23	is to make a licensing decision regarding the safe
24	operation of that facility.
25	The NRC is an independent government

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2 3 commercial uses of radioactive material. Our role is 4 different than the Department of Energy's. The 5 Department of Energy's role in this project relates to the United States 6 implementing nuclear non-7 proliferation policy, including the disposition of 8 surplus weapons plutonium.

9 The Department of Energy also has а responsibility to design, build, and operate two 10 11 facilities that support the proposed MOX facility. 12 And these two facilities are the pit disassembly and conversion facility, also known as the PDCF, and the 13 14 waste solidification building, or the WSB. While the 15 pit disassembly and conversion facility and the waste solidification building are considered in NRC's 16 17 environmental review, it is important to note that these -- that the NRC does not have regulatory 18 19 licensing authority over these two support facilities. 20 That responsibility rests with the Department of 21 Energy. The NRC only has authority over the proposed 22 MOX facility.

23 I'd briefly describe like the to 24 environmental impact statement process. The National Environmental Policy Act requires government agencies 25

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1 to prepare an environmental impact statement for 2 proposed major federal actions such as the potential 3 licensing of the proposed MOX project. An 4 environmental impact statement presents environmental 5 impacts (sic) of the proposed action, along with reasonable alternatives to that proposed action. Note 6 7 that the bolded areas are opportunities for public involvement in the process, and we consider this a 8 9 very important part of the EIS.

10 NRC's involvement with the MOX project 11 started when Duke Cogema Stone & Webster, or DCS, the 12 applicant, submitted an environmental report and requested to construct the MOX facility. We published 13 14 a notice of intent to prepare an EIS in the Federal 15 Register in March of 2001. During the scoping process, the public helped determine what issues would 16 be addressed in the environmental impact statement. 17 We have completed the draft environmental impact 18 19 statement, and we sent copies to approximately 550 20 people in February.

We are currently in the public comment period for the draft environmental impact statement. This meeting is being transcribed, and comments made here tonight will be included in the official comment record. And the last slide that Tim will show this

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As I mentioned earlier, NRC's role is to 5 make a licensing decision regarding the proposed MOX 6 7 facility. I'd like to take some time to describe the licensing process just briefly, and how the EIS we're 8 discussing tonight fits into NRC's decision-making 9 process. First, there are two decisions that the NRC 10 11 will have to make for the proposed MOX project. The 12 first decision is whether to authorize construction of the facility, and the second is whether to authorize 13 14 operation of the facility. These decisions are shown 15 in the middle of the slide. The NRC's environmental review is shown at the top portion of the slide, and 16 17 consists of preparing the final environmental impact statement. The final environmental impact statement 18 will be used by NRC to decide whether to authorize 19 20 construction, and later whether to issue a license to 21 operate the MOX facility.

22 need to point And Ι out that the 23 environmental impact statement does not cover 24 everything that would normally be covered in the 25 safety review. For example, response to terrorists

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1 activities, which is a security and safeguards matter, 2 is -- would be considered in the safety review, not 3 the environmental impact statement. It is not that 4 it's not going to be considered, it's just that the 5 forum for that will be in the safety review and not in 6 the environmental impact statement.

7 The NRC's safety review is shown at the bottom portion of the slide. 8 The safety evaluation report for the construction authorization request 9 focuses on a safety assessment of the proposed design 10 11 bases to determine if it meets NRC's requirements. 12 NRC's final environmental impact statement and safety evaluation report for the construction authorization 13 14 request will be the basis for making a decision on 15 whether to construct the proposed MOX facility. And we anticipate making that decision later this year. 16

17 Duke Cogema Stone & Webster plans to submit a license application to operate the proposed 18 19 facility around October of 2003. The safetv 20 evaluation report on the operating application and the 21 final environmental impact statement will form the 22 basis for making a decision on whether to allow DCS to 23 operate the proposed MOX facility.

I also want to point out that there will be at least -- there will be another opportunity for

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hearing on the operation of the facility. John Hull, with our Office of General Counsel, is here this evening, and he can answer questions related to the hearing process.

5 То summarize, a single environmental impact statement will be used to support the decision 6 7 to construct and later operate the proposed MOX facility. And let me also stress, once again, the 8 environmental impact statement has a separate mission 9 than the safety review. And the safety review will be 10 11 -- will be used to determine if it meets the 12 regulatory requirements as outlined in Title X, Code of Federal Regulations, Part 70. 13

Now, I would like to turn the presentation
over to Mr. Tim Harris of my staff. Mr. Harris it
lead for the environmental review for the MOX project
at the NRC.

## Tim?

MR. CAMERON: And Tim is going to cover a lot of material for you. And let's let him get through that material and go for questions. So if you could mark any questions that you have on your -- your view graphs, then -- so that we make sure and get them.

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Tim?

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1	MR. HARRIS: Thanks, Chip. Thanks,
2	Lawrence.
3	The document we sent out is a culmination
4	of approximately two years of effort. And I would
5	like to provide an overview of that document. It's
6	quite lengthy, so I'm going to try to focus the
7	discussion on several issues. And if one of the
8	issues we don't talk about is important to you, please
9	ask a question and we can provide some additional
10	detail.
11	I'll describe the alternatives that we
12	analyzed in detail, and also alternatives that we
13	considered but did not analyze in detail. And then,
14	as I stated, I'll go through a summary of the
15	alternatives we did analyze in detail.
16	To understand how we did, thatthat is,
17	which alternatives we analyzed in detail and those
18	that we just considered but did not do a detailed
19	analysis ofit's very useful and helpful to
20	understand the purpose and need associated with the
21	environmental impact statement. As we stated in the
22	notice of intent that Lawrence noted was published
23	back in March of 2001, the purpose and need for the
24	MOX facility relates to a larger surplus plutonium
25	disposition program that, as Lawrence mentioned, is

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administered by the Department of Energy. So the 2 purpose and need for this, our draft environmental 3 impact statement, is essentially the same as used by 4 the Department of Energy in its programmatic EIS's for the surplus weapons plutonium disposition program.

The purpose and need relates to agreements 6 7 between the United States and Russia to reduce the threat of nuclear weapons by insuring that those 8 materials are converted into proliferation-resistant 9 form. And also to reduce the risk that that plutonium 10 11 might fall into the hands of terrorists or roque 12 states.

The draft environmental impact statement 13 14 evaluates two alternatives in detail. These are the 15 proposed action and the no-action scenarios. The noaction alternative would be continued storage of 16 17 surplus weapons plutonium at existing Department of Energy sites. The no-action alternative is used as a 18 19 comparison -- as a baseline for comparing different 20 alternatives.

21 The proposed action includes impacts from 22 constructing, operating, and later decommissioning the 23 proposed MOX facility. And it also considered impacts 24 of other connected actions that are things that are 25 closely related to the operation of the MOX facility.

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1	These would be transportation of various nuclear
2	materials, feed stocks, fresh fuel, spent fuel. And
3	also, as Lawrence mentioned, DEIS includes impacts
4	associated with those two DOE support facilities. And
5	again, those were the pit disassembly and conversion
6	facility and the waste solidification building.
7	The pit disassembly and conversion
8	facility would take weapons material in a classified
9	form, declassify the form, and convert it from a metal
10	into a plutonium powder. That powder would go to the
11	MOX facility where it would be mixed with depleted
12	uranium in order to make reactor fuel. The waste
13	solidification building would take waste from the
14	proposed MOX facility and the pit disassembly and
15	conversion facility and process that waste. The
16	impacts associated with the proposed action also
17	includes the potential use of MOX fuel in reactors.
18	For the proposed action, we also evaluated
19	differences in using a sand filter versus HEPA
20	filters. The idea of using sand filters was raised at
21	a scoping meeting in North Augusta.
22	As I said before, the purpose and need is
23	used to determine which alternatives we considered to
24	be reasonable and were analyzed in detail, and those

25 that were not. In addition to siting and technology

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1 options that evaluated by DCS in its were 2 environmental report, several alternatives were raised during scoping, and also at public meetings that we 3 4 had last fall.

5 Immobilization was initially considered to be a reasonable alternative. However, following DOE's 6 7 excuse me, the Department of Energy's amended 8 record of decision, DOE believed that an immobilization-only approach would not meet the U.S.-9 Therefore, it did not meet the 10 Russia agreements. 11 purpose and need, and we did not analyze that 12 alternative in detail.

Deliberately making off-specification MOX 13 14 fuel was also raised during meetings we had last fall. 15 This alternative involves not removing impurities that are in the -- the weapons plutonium that would make it 16 17 less useful to use in the reactor fuel. They have to remove the impurities in order to make it useful in a 18 19 This alternative would not remove those reactor. 20 impurities, so you wouldn't get the waste associated with the removal, and also they would make the fuel, 21 22 but it would not be used in a reactor. Instead, the 23 off-specification MOX fuel, under this alternative, 24 would be stored at spent fuel pools at existing 25 reactor sites prior to disposal in a geologic

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2 impacts of this alternative The are 3 addressed qualitatively in the draft environmental 4 impact statement. The monetary costs of the off-5 specification MOX alternative would be about the same as the proposed action. That is, you would still 6 7 build the facility. Those costs would still be there. However, the off-specification MOX fuel alternative 8 9 would generate less waste than the proposed action. However, the benefits would be lower because you would 10 11 produce electricity. Therefore, the offnot 12 specification MOX fuel alternative was not obviously And also, this superior to the proposed action. 13 14 alternative did not fulfill the U.S.-Russia 15 agreements.

For the proposed action and no-action 16 17 alternatives, the impacts associated with the following list were evaluated. In order to allow time 18 19 for public comment, I won't go through the -- the exhaustive list. I'll focus on the impacts on the 20 21 left, which are human health, air quality, hydrology, 22 waste management, and environmental justice. I'11 23 also talk about the impacts associated with 24 transportation and potential MOX fuel use. And I'll 25 also summarize the cost benefit analysis discussed in

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the EIS.

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2 First, I'd like to summarize the impacts associated with the no-action alternative. 3 The 4 impacts of this alternatives (sic) were previously 5 evaluated by the Department of Energy, as I mentioned, the programmatic EIS's that they did. They evaluated 6 7 the impacts of continued storage. And the impacts that are included in our draft environmental impact 8 9 statement are essentially the same as DOE had 10 previously evaluated.

11 The information packet that Adrienne 12 mentioned includes tables which shows numerical differences. if you 13 So want to compare the 14 differences for a particular resource area, like how 15 much groundwater would be used or what the air quality impacts would be, you have that information in your 16 17 I'll just summarize those quickly. handouts.

The impacts to the public and workers from 18 19 this no-action alternative---that is, continued 20 storage --- are considered to be low. There would be no 21 significant water quality or air quality impacts 22 associated with this alternative. As you can imagine, 23 if you're storing material in a warehouse or other type of facility, you're not going to generate a lot 24 25 of air emissions or -- or water impacts. Also, there

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would be no significant waste management impacts or environmental justice concerns.

The next series of slides 3 summarize 4 impacts associated with the proposed action. And 5 again, the proposed action includes the impacts from three facilities: the proposed MOX facility; the pit 6 7 disassembly and conversion facility; and also the waste solidification building. 8 I've presented the impacts on the slides in terms of increase or decrease 9 relative to current conditions at the Savannah River 10 11 And again, if you want to see the actual Site. 12 numerical numbers, those are on the handouts. There would be no adverse chemical or radiological impacts 13 14 during construction. From operating these three 15 facilities, the annual public collective dose would increase by about 11%. But as I'll show in the next 16 17 slide, we'll put that in perspective. There would also be no significant chemical exposures during 18 19 normal operations. Thanks.

This slide shows the radiation dose from several sources, and also, importantly, NRC's annual public dose limit. The average annual dose from natural background is about 360 millirem. And a millirem is just a unit of radiation exposure, to kind of give you a benchmark. If you looked at the -- the

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important thing to note is NRC's annual public dose limit, which is 100 millirem. And if you -- if you provide context, if you got a chest X-ray you'd receive about six millirem. The annual dose to the public from normal operations of the three facilities would be less than one millirem. So that, while the increase is 11%, it's still less than one millirem.

8 Accidents have the greatest potential 9 consequences of the impacts that we evaluated. Two conservative scenarios were evaluated in the draft 10 11 environmental impact statement for a number of 12 potential accidents. The short-term scenario assumes that people would be exposed by inhaling contaminant 13 14 material from a plume that would be generated 15 following the accident. We have also evaluated a And these would include the 16 long-term scenario. 17 impacts from the short-term scenario, as well as potential impacts from eating crops that could become 18 contaminated. 19

20 potential accident The impacts are evaluated in terms of risk. The classical definition 21 22 of "risk" is you take the probability of an event 23 times the consequences equals the risk. In keeping 24 with NRC's mission to protect public health and 25 safety, we want to insure that the resulting overall

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risk to the public from an accident is very small. Therefore, events that could have significant consequences are required to be made highly unlikely through design safety features. And I think Lawrence touched on that. With the safety evaluation report is where those safety features are addressed. The safety features are not defined in the EIS. Those are covered in a separate document.

9 March notified number of In we а stakeholders that we had identified an error in the 10 11 accident consequences that was due to a computer code 12 And we felt it was very important to get that buq. information out to the public in a timely manner. 13 Ι 14 think I got a phone call on Monday afternoon notifying 15 me of the error, and by Thursday we had sent out a letter to over 500 people notifying them that, hey, we 16 We think the numbers are 17 think there's an error. going to change. We'll provide more information. 18

19 During our review, we also found an 20 additional error, and that was related to wind data 21 that Duke Cogema Stone & Webster had provided in its 22 environmental report. This error would essentially double the impacts associated with normal operations 23 24 and potential accidents. However, we reviewed the 25 impacts associated with these errors and determined

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1	that they did not change NRC's conclusion or
2	preliminary recommendations. That is, if you double
3	a number that was significantly less than one
4	millirem, that number's still going to be less than
5	one millirem from normal operations, and we didn't
6	consider that to be significant. If you looked at the
7	accident impacts, if you double, say, 10 and get 20,
8	10 is significant, 20 is significant. That didn't
9	change our conclusions that potential accidents have
10	significant consequences.
11	We also promised in the letter that we
12	sent out in March that we would provide you additional
13	information. And hopefully we'll have those errata
14	sheets prepared next week. And those will be mailed
15	out. We're also going to post those on the Web site.
16	Hypothetical events caused the highest
17	that caused the highest consequences were an explosion
18	event at the proposed MOX facility. For the one-year
19	scenario that I talked about, this would have an
20	estimated result of less than 50 latent cancer
21	fatalities. And then, for the long-term scenario, we
22	estimated less than 200 latent cancer fatalities. And
23	again, these numbers are one significant figure. So
24	the the actual impact that was calculated
25	numerically was less, but we reported 200 to be

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1 significantly accurate. These estimates for the long-2 term impacts do not credit any interventions that might be taken to reduce long-term exposures from 3 4 eating contaminated crops. That is, it's assumed that 5 the crops are contaminated shortly before harvest, that the people harvest the crops, eat the crops. 6 So 7 intervention that would follow an accident, such as not allowing people to eat crops and other things, are 8 9 not credited in our analysis.

The probability -- getting back to risk, 10 11 the probability of these hypothetical events is 12 considered to be highly unlikely through preventative and mitigative features that are being developed in 13 14 the safety review. The consequences of these highly 15 unlikely events are significant; however, the overall risk---that is, consequences times probability---we 16 believe is very small to members of the public. 17

I'll walk through these rather guickly. 18 19 Air quality relates to compliance with national 20 ambient air quality standards for chemical pollutants. 21 Air quality at the Savannah River Site already exceeds 22 one proposed standard, which is the particulate matter 2.5 micron or PM 2.5 standard. The proposed action 23 24 would increase the PM 2.5 by about 0.1% during construction, and that's primarily from earth-moving 25

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1 activities; and 0.01% increase from normal operations.
2 Now, as I mentioned, this is a -- a proposed standard.
3 EPA has delayed implementing the PM 2.5 standard. And
4 if and when attainment plans are developed by the
5 State of Georgia and South Carolina, SRS could be
6 required to reduce PM 2.5 emissions or develop
7 measures to -- to mitigate those.

Surface water would not have a significant 8 effect -- or surface water would not be significantly 9 affected during construction through the use of 10 11 sedimentation control measures. And there would be no 12 direct discharges during operation. Waste from the proposed MOX facility would be managed by existing 13 14 Savannah River Site facilities. And discharges from 15 those facilities are not anticipated to change significantly as a result of processing this waste. 16 Groundwater would be used during construction and 17 operation, and the figures are shown there. 18 But 19 existing well capacity exists to allow this water to 20 be used. And it would not have a significant impact 21 on the aquifer.

There would be no significant impact on the Savannah River Site waste management capability from processing the waste from the proposed action. Operation of the three facilities would generate about

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1 300% more transuranic waste than is currently being 2 generated at the Savannah River Site. This TRU waste 3 is planned to be disposed of in New Mexico at the 4 Waste Isolation Pilot Plant. And the volume of the TRU 5 waste that would be generated would be about 3% of the Isolation Pilot Plant disposal capacity. 6 Waste 7 Operation of the three facilities would increase low level waste by about 32%, and non-hazardous solid 8 9 waste by about 60% above what is currently being generated at the Savannah River Site. But, again, the 10 11 current Savannah River Site waste infrastructure can 12 accommodate these waste volumes.

In an executive order issued by President 13 14 Clinton in 1994, it directed federal agencies to 15 address any disproportionate or high adverse human health impacts to low income and minority populations. 16 17 And this is commonly referred to as environmental justice. The impacts from construction and operation 18 19 from the three facilities are not high or adverse; 20 therefore, there would be no environmental justice 21 concern associated with operating the facility or 22 constructing the facility. However, due to prevailing 23 wind directions, we believe that there is a potential 24 impact to low income and minority populations in the 25 highly unlikely event that an accident might occur.

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The risk associated with that accident, as I mentioned, is considered to be very small to all populations. NRC felt it was important to include mitigation measures to help mitigate those potential impacts to low income and minority populations. And those are addressed in Chapter 5.

7 Transportation of material was raised 8 during scoping as an important issue to many 9 stakeholders. And the transportation analysis is -the transportation analysis includes shipping the 10 11 surplus weapons material from the various DOE sites to 12 the Savannah River Site, and also includes shipping depleted uranium from an enrichment facility where it 13 14 would be converted to a powder form and then go to the 15 The analysis also includes Savannah River Site. 16 shipping of fresh MOX fuel to a generic Midwest 17 reactor. Transport of spent MOX fuel is also discussed generically in the EIS. 18

To summarize the impacts, there would be less than one latent cancer fatality from routine transportation to members of the public living along transportation routes, and also to transportation crews. The hypothetical accidents that were evaluated did not result in significant impacts.

The potential impacts of -- associated

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1	with using MOX fuel are also discussed generically in
2	the draft environmental impact statement. The
3	collective dose to members of the public from normal
4	operations would be about the same, whether you used
5	conventional, low enriched uranium fuel, or a mixture
6	of MOX fuel and low enriched uranium fuel.
7	We also looked at various design-based
8	accidents, and found that the risk of developing a
9	latent cancer fatality, comparing the two fuel types,
10	ranged from about 6% lower to 3% greater. And we also
11	looked at beyond design-based accidents, and found
12	that the risk was about 7% lower to 14% greater. And,
13	again, it depended on the actual scenario event tree
14	that was looked at, which is why in some cases the
15	impacts were actually lower.
16	We have received an application from Duke
17	Power to place lead test assemblies in either the
18	Catawba or McGuire plants. We will do additional

Power to place lead test assemblies in either the Catawba or McGuire plants. We will do additional site-specific evaluations before these lead test assemblies are placed in a reactor. That is, we will determine whether or not they can be safe -- that can be safely done. And also, before MOX -- we'll do additional analysis before MOX fuel is placed in any reactor.

The draft environmental impact statement

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1 includes a cost benefit analysis of the proposed 2 action on both a national and regional scale. The 3 cost benefit was used in helping determine staff's 4 preliminary recommendation. The national cost would be about \$3.85 billion, and the national benefits 5 would be the safe use of excess weapons plutonium, and 6 7 also employment and income. The regional numbers include a 15-county area surrounding the Savannah 8 9 River Site. And those numbers are provided for your 10 review.

11 In conclusion, the impacts of the proposed 12 action are generally not significant. Accident impacts from the pit disassembly and conversion 13 14 facility and the proposed MOX facility are 15 However, the probability of such an significant. accident is considered to be highly unlikely. 16 And 17 again, that's -- part of our job is to make sure that those accidents are highly unlikely. Therefore, the 18 overall risk to the public is considered to be very 19 20 There is a potential environmental justice small. 21 concern should these accidents occur. And we've 22 provided mitigation measures to do that. Also, we've 23 been engaging communities around the Savannah River 24 Site to help refine those mitigation measures. 25

Staff's preliminary recommendation is the

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1	proposed action, again with appropriate mitigation
2	measures to reduce potential impacts in all areas.
3	Before making any decision, NRC will consider comments
4	on the draft environmental impact statement, and we'll
5	prepare a comment summary document, and we'll revise
6	the environmental impact statement as appropriate.
7	That is, comments that you make in writing and here
8	tonight we will review and determine whether or not
9	the analyses need to need to be changed, whether we
10	need to consider additional information. And that
11	will be documented in the final environmental impact
12	statement.
13	When DCS submits an operating license
14	application, NRC will review that application and
15	prepare a second safety evaluation report. NRC will
16	only grant authority to operate that facility if it
17	can be shown to be safe.
18	The last slide shows ways that you can
19	submit comments, and these are either by mail to Mike
20	Lesser, you can Email me, you can provide comments
21	directly through the Web, or you can fax me. And
22	again, I think our phone numbers are up there if you
23	if you have questions. We really want to hear your
24	comments.
25	And with that, I'll conclude my

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1	presentations and hope that that was succinct enough,
2	Chip, for a document that was two inches.
3	MR. CAMERON: Very, very good, Tim. Thank
4	you. Good summary. A lot of material there.
5	Let's go out to you for for any
6	questions that you might have about the presentation.
7	And I'm going to go back here, and then I'll come up
8	front. And if you could just, again, give us your
9	name and affiliation, if appropriate.
10	MS. ODOM: Okay. My name is Linda Odom.
11	I have no affiliation other than I'm from the Savannah
12	River plant area.
13	I wanted to ask you, all the accidents,
14	potential hazards that you have used are hypothetical.
15	Why not look at the actual accidents, like I said to
16	you earlier? When you were talking about the
17	radioactive millirem that people are exposed to, in
18	1973 the accident from the Savannah River plant, it
19	was estimated that the average person in the way
20	received over 300 millirems of radiation. Now, how
21	if that happens here, hypothetically, how would that
22	affect people for the next 30 years?
23	And also, if just 20 pounds of of
24	excuse me, 14 pounds of plutonium can cause a bomb
25	destruction as big as Nagasaki, how big of an accident

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1	do we have to have? You said that it's regulated.
2	How much are they allowed to work with at a time?
3	MR. CAMERON: And, Tim, I think there's
4	two questions there, and one one goes no, that's
5	fine. That's fine. I'm just trying to give a summary
6	here. One was on the probability and the
7	MR. HARRIS: Well, I think
8	MR. CAMERON:the second one was on
9	I think, please address the the criticality
10	concern. Okay. In other words
11	MR. HARRIS: Let me let me answer the
12	first question, and I'll let Dave answer the second
13	question.
14	MR. CAMERON: All right.
15	MR. HARRIS: The first question related to
16	the use of past accidents. And yes, we did look at
17	past accidents at similar facilities in order to
18	develop the types of accidents that could be that
19	could happen at the MOX facility. So we looked at
20	accidents at fuel fabrication facilities or facilities
21	that do the types of processing that would occur at
22	the MOX facility. So we did look at similar
23	facilities in developing which accidents were
24	evaluated.
25	And I'll let Dave talk about the amount of

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1	material.
2	MR. CAMERON: And if you have a follow-up
3	on that first one, we'll go to you again, Linda; okay?
4	David?
5	MR. BROWN: Well, one of the things we're
6	looking at certainly in the safety evaluation is the
7	potential for an accidentally criticality. And, in
8	fact, the consequences of such an event are summarized
9	in the EIS. But one of the ways that the the
10	applicant has proposed to prevent that is to control
11	the amount of material that would be in in any
12	place at any one time. But, in any event, it would
13	not be like a nuclear bomb going off, and that should
14	be clear. It would be an accident, but not like a
15	nuclear weapon detonation.
16	MR. CAMERON: And, Linda, did you want to
17	add anything in terms of Tim's answer?
18	MS. ODOM: Well, I wanted to know what
19	would the long-term effect be 30 years from now, 30
20	like in Savannah River plant, which I mentioned to you
21	earlier. There was an awful effect, even if it was to
22	the low income population, you know, as far as a lot
23	of people dying from cancer. I, myself, lost 19
24	people in eight months. So I'm very concerned about
25	this, as you well know.

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1	MR. HARRIS: I guess I can't tell you what
2	the impacts would be because I'd need a calculator,
3	and there's a lot of things involved. The EIS does
4	tell you, if you know how many millirem you were
5	exposed to, you can convert that to a risk of
6	developing cancer. And if you have questions on how
7	to do that, give me a call and I'll walk you through
8	the steps. But I'm not sure I want to get into
9	calculating impacts from an accident at a Department
10	of Energy site that happened years ago.
11	MR. CAMERON: Okay.
12	MR. HARRIS: That's kind of outside our
13	our
14	MR. CAMERON: But we do, in the in the
15	draft EIS, as you point out, you we do discuss the
16	long-term impacts of the hypothetical?
17	MR. HARRIS: Impacts associated with
18	that are hypothetical, associated with the proposed
19	action, which is which is constructing the MOX
20	facility.
21	MR. CAMERON: Okay. Thank you.
22	Mary?
23	MS. OLSON: I actually wrote down three
24	different types of questions, but I'll do them one at
25	a time, and you can come back to me again after the

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first one. Okay.

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2 I want to appreciate that you did look at the plutonium and uranium transport portion of this 3 4 program, because clearly, to do MOX at Savannah River 5 Site you have to move plutonium. I am curious, though, because the last time somebody told me that 6 7 transportation impacts were not significant, they were using a population to make that determination that 8 9 never occurred to me, which was the entire U.S. So I -- I'd like you to remind me, 10 population. 11 anyway, what the base of your compare -- you know, 12 your group is to be able to say significant or not significant. 13 14 MR. HARRIS: I believe that the group was

15 just people directly next to transportation corridors. The -- as determining whether or not the public was 16 17 significantly impacted. The computer code that's used to do those estimates, you plot out your route, and 18 then it has population data along that route, and it 19 20 uses formulas and -- to determine, sum up all the 21 exposures along that route.1 22 MR. CAMERON: So there were... 23 MR. HARRIS: And that's -- it's not the 24 entire nation. It's people directly next to the

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1	MR. CAMERON: But there there were
2	specific routes that were
3	MR. HARRIS: No, there were not specific
4	routes.
5	MR. CAMERON: Okay.
6	MR. HARRIS: Living in the new age that we
7	are with terrorism and security, the routes are not
8	plotted. What we did provide in the EIS is the stuff
9	would come from here to here, but we didn't tell you
10	what roads it was going to go on.
11	MS. OLSON: Just a word to the wise.
12	There's currently pending in I've forgotten which
13	federal court, a case questioning whether there is an
14	environmental justice issue around the Yucca Mountain
15	shipments. So I guess at this point, since you find
16	no significant impact to anybody, this program doesn't
17	have to worry about that. But should those numbers
18	change, it's fairly evident to the casual observation
19	that, for the most part, low income and minority
20	people are the ones living near those transportation
21	routes, no matter which one they are.
22	MR. HARRIS: Right. Let me let me
23	check, but I think we looked at that, Mary. I want to
24	say we did. I'll get you the answer, but I think we
25	looked at that. Again, it's a two-inch thick document

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1	and I can't remember every word in there, but but
2	I'll get you an answer.
3	MR. CAMERON: Do you want to ask your
4	other questions now, or do you want me to come back?
5	MS. OLSON: That's it.
6	MR. CAMERON: I'll go to others, then I'll
7	come back for for that.
8	Peter?
9	And that was Mary Olson.
10	And Peter, if you could just give us your
11	name, and then we'll go to
12	MR. SIPP: Sure. My name is Peter Sipp,
13	Asheville, North Carolina. And I have two questions.
14	First of all, is you didn't talk about
15	the Parallex Project on on the one page there,
16	alternatives considered but not analyzed in detail.
17	Would you tell me what the Parallex Project is?
18	MR. HARRIS: Sure. The Parallex Project
19	is a Department of Energy-Canadian project which is an
20	experimental project to use MOX fuel in Canadian CANDO
21	reactors. I think the quantity associated is 35
22	pounds. It's a very small amount compared to 34 34
23	metric tons.
24	MS. OLSON: It's a test.
25	MR. HARRIS: It's a test. It's an

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1	experiment. So that's what that relates to. And it's
2	just the description, Peter, is in Chapter 2. It
3	goes into a little bit more detail.
4	MR. CAMERON: Peter, why don't you ask
5	your excuse me, Mary, let me squeeze past.
6	Peter, why don't you ask your second
7	question, and then we'll go
8	MR. SIPP: Yeah. Yeah, sure.
9	The other question is, Linda asked about
10	how much plutonium is going to be you may be
11	answered it, but I didn't quite hear it.
12	MR. HARRIS: How how much plutonium is
13	going to be used?
14	MR. SIPP: Well, I don't what what
15	was that question, Linda?
16	MS. ODOM: You said that it would be
17	regulated, the amounts that would be used. It would
18	be a safe amount. Actually, you said it would be
19	safe. Well, just 14 pounds from according to the
20	scientist at MIT University, he said 14 pounds of
21	plutonium, if there is an accident, a human error,
22	that 14 pounds would cause destruction like a bomb at
23	Nagasaki. And that's where I got that information.
24	So how much I mean, 14 pounds is a really small
25	amount to me.

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1	MR. HARRIS: But the idea that Dave tried
2	to say is that they use safe amounts in discrete
3	locations. The throughput of the facility annually is
4	about 3.5 metric tons. So 3.5 metric tons would go
5	through the facility in any given year during normal
6	operations. But, again, that the amount of
7	plutonium would be in a number of different locations
8	in order to make sure that it was safe.
9	MR. CAMERON: Okay, let's go to Dr.
10	Patrie. Could you just introduce yourself.
11	DR. PATRIE: I'm Dr. Lew Patrie, L-E-W, P-
12	A-T-R-I-E, from Asheville. I'm with the Western North
13	Carolina Physicians for Social Responsibility.
14	I would like to find out follow up on
15	Mary's question with regard to the denominator used
16	for the population at risk in the case of an accident.
17	I wonder if you could tell us the magnitude. If it
18	wasn't the total population of the United States, if
19	it was of a population of people along within a
20	certain distance of transportation routes, what
21	what is that magnitude of denominator of population?
22	MR. HARRIS: Can we do this, Chip? Dave
23	is going to go over and find the number in the EIS.
24	I'm sorry, I I don't have that up here.
25	DR. PATRIE: Another question, and that

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1	is: What assumptions were you making when you
2	calculated the risks of morbidity and/or mortality
3	from acute or long-term exposure for the
4	MR. HARRIS: We're talking about
5	transportation?
6	DR. PATRIE: On any of the risks. Are we
7	are you using the base assumptions based on
8	studies that were extrapolated from world from the
9	Nagasaki and Hiroshima experience?
10	MR. HARRIS: Yeah, we I think you're
11	asking about the conversion factor to convert from
12	exposure to latent cancer fatalities. Is that what
13	you're asking about?
14	DR. PATRIE: Yes, or latent
15	MR. HARRIS: The number that we used was
16	in Federal Guidance Report 13 which is issued by the
17	Environmental Protection Agency.
18	DR. PATRIE: And do you know where they
19	came from?
20	MR. HARRIS: They came from I'll let
21	Dave answer that, since he's a certified health
22	physicist.
23	MR. BROWN: That is as I understand,
24	that is the most
25	MR. HARRIS: Use your mic right there,

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1	Dave.
2	MR. BROWN: I don't
3	That number reflects the more recent
4	recommendations of the ICRP. The kind of data
5	DR. PATRIE: I don't I don't know that
6	acronym.
7	MR. BROWN: Oh, I'm sorry. The
8	International Commission on Radiological Protection.
9	Which forms the basis for many of NRC's radiation
10	standards, protective guides.
11	DR. PATRIE: Do you think those standards
12	are primarily derived from data that was extrapolated
13	from the bomb bomb experience in Japan in 1945, or
14	do you think they have modified those, considering the
15	studies that were carried out by people like Dr. Alice
16	Stewart and Dr. Steve Wing, who happens to be from
17	North Carolina?
18	MR. BROWN: I don't know the answer to
19	your question about the latter part. I do know that
20	the Hiroshima and Nagasaki bombs do form a basis for
21	our current understanding of the risk of radiation.
22	I'm not familiar with the latter two studies.
23	DR. PATRIE: I understand that they have
24	been used as sort of sacrosanct data basis for
25	calculating risks, even though there's other data that

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1	suggests a low level radiation over a long period of
2	time, and some other kinds of radiation, may not
3	follow those premises.
4	MR. CAMERON: And I I think that
5	perhaps we I think we could say, Dr. Patrie, that
6	there ICRP and other organizations are continually
7	looking at at new data. But whether they're
8	looking at data from people like Wing or Stewart is
9	is something that we don't know. But perhaps we
10	could
11	MR. HARRIS: Well, I
12	MR. CAMERON:it's simple to get Dr.
13	Patrie some information on that.
14	MR. HARRIS:I think you I think you
15	can go to the EPA Web site and pull up a copy of
16	Federal Guidance Report 13 and look at the basis. And
17	also I think that was a quasi-comment, Chip, that, you
18	know, if there's a different basis or additional
19	information that would be used to develop estimate
20	latent cancer fatalities, that could be a comment.
21	MR. CAMERON: Good. And that's a good
22	reminder, Tim, is that as we're asking questions here,
23	there may be comments by implication or explicitly,
24	and we will evaluate the transcript to make sure that
25	we we capture all those, too.

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1Yes, sir?2MR. TROZZI: My name is David Trozzi, and3I have no affiliation at this point.4I had a question concerning travel safety.5And I'll try to try to make this as simple as I6can. What protocols surround transportation, number7one?8And to qualify that, is do does DOE9and EPA have a mocked a mocked plan? In other10words, if an accident happened, what do they do? And11let me let me qualify this a little more in a time12period. Years ago I worked at IBM as a safety auditor13and with the haz com team. And in 1989, at the14Fishkill, New York plant, we had mocked up if we were15bombed, so to speak. Because it was it was a semi-16conductive facility that used quite a bit of lethal17elements or chemicals.18And during this presentation that we19that we did, it actually showed where the site was20bombed, and what to do for it and what to do with it21and how to stop that proactively. Again, this is back22in 1989. And I understand this program came up in '9523when Clinton was in the when Clinton was in office;		47
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23 when Clinton was in the when Clinton was in office;	21	and how to stop that proactively. Again, this is back
	22	in 1989. And I understand this program came up in '95
	23	when Clinton was in the when Clinton was in office;
24    is that correct? So I don't know	24	is that correct? So I don't know
25 MR. HARRIS: '93. But yes.	25	MR. HARRIS: '93. But yes.

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1	MR. TROZZI: Okay. I don't know if
2	terrorism, at that point and at that time, really was
3	looked at as it is now. So I'm I'll stop right
4	there and let you answer those questions.
5	MR. HARRIS: Just to make sure, you're
6	asking one question? Okay.
7	MR. TROZZI: All right. Yeah. Yes.
8	MR. HARRIS: Okay. The answer is that the
9	NRC is currently looking at design threats and the
10	word the word just left me, Lawrence.
11	MR. KOKAJKO: The NRC takes its
12	responsibility toward safe transport very seriously.
13	UNIDENTIFIED: Could you get closer to the
14	microphone.
15	MR. KOKAJKO: Certainly.
16	The NRC takes its responsibility for safe
17	transport very seriously, and I know the Department of
18	Energy does, too. There are route controls and
19	approvals, there many shipments are monitored by
20	satellite and they're tracked, many have armed
21	escorts. These shipments would qualify for those
22	types of activities. Route approvals are not released
23	prior to shipments. States typically are made aware
24	and so that they're in case of as a shipment
25	is rolling down the the highway, so that the state

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governments are -- can provide certain protective features, if necessary.

3	And, okay, the the other piece I want
4	to tell you is the NRC is also looking at interim
5	compensatory measures for transportation, as well as
6	other aspects of the regulatory program, to insure
7	that they are responsive to the terrorist threat. And
8	we're also doing vulnerability assessments on certain
9	things that are that we regulate, to insure that we
10	understand the vulnerability, so that we can protect
11	against it. And the interim compensatory measures are
12	one step in how we're trying to handle that.
13	MR. CAMERON: I believe do you have a
14	follow-up, Mr. Trozzi? And I think Dave has some
15	information for you.
16	Here, other questions? And, Mary, I'm not
17	forgetting. I'm going to come back.
18	Yes, sir?
19	MR. KEISLER: My name's Bill Keisler. I'm
20	a resident of Lexington County, South Carolina, and
21	been active in the nuclear industry for many years,
22	including some standards of (indiscernible)
23	engineering (indiscernible) consulting work.
24	There are a couple of things. Go back to
25	Slide #6 with the process of the environmental impact

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1	statement and the safety review.
2	MR. HARRIS: Dave, go back to Slide 6.
3	Go ahead. I'm
4	MR. KEISLER: Okay. It's not clear to me.
5	You have public comment up here with the EIS. Is
6	there no public comment and review for the safety
7	review?
8	MR. HARRIS: That's correct. Public
9	comment is typically not a part of the safety
10	evaluation. Again, that those the safety
11	evaluation focuses on compliance with NRC regulations.
12	MR. KEISLER: Okay. Because you said
13	or whoever had this slide, maybe (indiscernible) said
14	that terrorism or whatever would be covered under the
15	safety review and not the environmental impact, and
16	yet the environmental impact speaks to accident
17	analyses, in trying to keep that to a minimum.
18	I was a senior consultant for the Davis-
19	Besse Nuclear Facility in the late '80s following the
20	June '85 event. We all know that there has been a
21	serious problem with the discovery last year of their
22	the regulatory failure to that, and there are open
23	issues that cover a broad breadth of culture internal
24	to the NRC. Also throughout the licensee. It's too
25	lengthy now, but there is some relevance, particularly

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5 I spent 23 years on (indiscernible) boiler and pressure vessel (indiscernible), and the initial 6 7 chairman of the replacement's working group, subgroup on repairs and replacements, a number of things. 8 Ιt is impossible to get to a hole in a reactor vessel 9 And we all know that. 10 that's leaking. But to 11 conclude (indiscernible) implemented.

What we're saying here is -- but I don't know how -- and there's some things still emerging. I will assure you of that. That haven't seen the light of day yet. But it does have a relevance to this, and it was covered in the safety review with no public comment. How does the public make a comment to bring that to bear?

19 MR. KOKAJKO: Okay, I understand your 20 question.

First of all, there -- I'd like to say three things. There are a number of public meetings that have occurred between the NRC and DCS over this process. And those are open, public meetings. And many times those meetings -- people have been --

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1	public members can observe them. And typically you
2	may have the opportunity to comment at them, and
3	particularly if you talk to the person who is in
4	charge of the meeting. They will allow people to
5	speak if you want to say something.
6	Second thing is, there is, as I mentioned,
7	an opportunity for hearing in this. This is a formal,
8	adjudicatory process that that may occur if you
9	have a contention. It can be admitted and it will
10	have a hearing on it. So that is a very formalized
11	process and a very legal process that they have to go
12	through if a hearing is requested. I would ask John
13	Hull to perhaps comment on that after I finish.
14	The latter piece, the safety oversight,
15	NRC does not abdicate its responsibility for safety
16	oversight. I can't speak to the Davis-Besse incident.
17	I haven't been in nuclear reactor regulation in some
18	time, so I don't exactly know. But I do know that
19	there has been a rather scathing report on lessons
20	learned from the Davis-Besse event within the NRC.
21	That is available, I believe. And we've taken
22	ourselves, you know, to the cleaners, so to speak,
23	trying to solve the problems that may have led to
24	that.

In this case, the MOX case, I think we

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plan to have a resident inspector onsite for the MOX facility. It will be inspected in our post-licensing, and it will be monitored as we would any other fuel fabrication facility.

5 MR. CAMERON: And before we see if John 6 wants to add anything, I guess one question for -- for 7 you, Lawrence, is if anybody wants to find out about 8 the meetings between the applicant and the NRC on the 9 safety side, how would they do that, and are there 10 minutes of those meetings that are publicly available 11 if anybody wanted to tune into the safety side?

12 MR. KOKAJKO: Okay, first of all, the -the meetings are posted on the NRC Web site. And, in 13 14 fact, those all -- most public meetings are open to 15 the public. There are some that are not, primarily when they deal with privacy act information, or 16 perhaps when they deal with safeguards and security 17 matters. But you can look on the Web site to see what 18 19 meetings are there.

I believe, also, the Davis-Besse incident, in itself, has its own subpage on the NRC Web site, so you can go to the Davis-Besse to find out more about that.

24 MR. CAMERON: And minutes of the -- are 25 there minutes taken that are publicly available?

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1	MR. KOKAJKO: Typically
2	MR. KEISLER: I'm well aware of that
3	process.
4	MR. CAMERON: Okay.
5	MR. KEISLER: I've been involved in that
6	process (indiscernible).
7	MR. CAMERON: Okay, we've got to get you
8	on the the record.
9	MR. KOKAJKO: Let me finish that, because
10	some other people may not know.
11	We do take we do have a meeting summary
12	after each public meeting. Many meetings are
13	transcribed, but I would say most probably are not
14	transcribed. But at least a meeting summary is
15	generated and is publicly available.
16	MR. CAMERON: Okay. And just you know,
17	we we know that you may know a lot of that that
18	part about it. But for other people's edification
19	and we do have David Ayres here from our regional
20	office, the inspection specialist. And why don't you
21	tell us a little bit in regard to one question, David.
22	MR. AYRES: Okay, I'm David Ayres. I'm
23	the Chief of the Fuel Facility Inspection Branch in
24	Region 2.
25	MR. CAMERON: It's not obvious, yeah. I

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55 1 think that that's -- so people ... 2 MR. AYRES: And as was mentioned here just 3 a minute ago, we do plan to have a resident inspector 4 there at the site. If the construction authorization 5 is approved, we would have a resident there from the beginning of construction all the way through startup 6 7 and -- and beyond. Our plans are to have at least one resident there at all times. 8 And we are going to have fairly extensive 9 region-based inspection program that will include 10 11 virtually all of the aspects of the safety evaluation 12 report that will come out, such that all of the -- all the commitments and requirements that are in the 13 14 approved construction authorization that come out of 15 the safety evaluation report would be inspected. So we were going to cover all the bases we possibly 16 17 could. MR. CAMERON: Okay, thank you very much, 18 David. 19 20 Let's -- before we go back over to Mary, 21 is there any other -- any questions over here? 22 Catherine, if Okay, you could just 23 introduce yourself to us. 24 MS. MITCHELL: I'm Catherine Mitchell, and 25 I'm here -- I'm not representing any organization.

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1 But my question is: Since this program 2 was initially started as a joint program between the 3 United States and the Russian government to dispose of 4 surplus materials from dismantled nuclear warheads, 5 what plans are in place in the event of -- and certainly, light 6 in of current events, of 7 deteriorating relations with the Russian government? How would that affect the ongoing plan for this 8 9 particular program? MR. CAMERON: Okay, thank you, Catherine. 10 11 MR. HARRIS: Those issues, Catherine, 12 really relate to the Department of Energy who has the overall mission for implementing the agreements with 13 14 Russia and the overall surplus weapons -- weapons --15 surplus weapons plutonium -- the program. Sorry. As it relates to us, likely what would 16 17 happen would be, if -- if things did deteriorate. The applicant, DCS, would withdraw their application. 18 19 MR. CAMERON: Okay, let's -- let's go back 20 to Mary, and then we'll go to -- to Gregg. 21 Mary, you have another question; correct? 22 All right. 23 MS. OLSON: I am Mary Olson, the Southeast 24 Office Director for Nuclear Information and Resource 25 Service.

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1 I was really struck, I was really pleased, 2 I must say, that you did give a qualitative review of 3 the off-spec MOX plan that was put forward by Frank 4 Von Hippel and Alice (indiscernible) and others as a 5 way to kind of go down the middle path. I didn't agree with a lot of your analyses, but one of the 6 things that struck me the most is this invocation of 7 DOE's statement that the Russians might not like 8 something that doesn't degrade the plutonium from its 9 current isotopic distribution. And it really bothered 10 11 me so much, that I had the horrifying experience of a 12 new idea at this late date in the game. But there's reactor grade plutonium lying 13 14 around in large quantities. I mean, there may not be 15 that much in the U.S., but West Valley operated for a while, and I'm sure there's other degraded plutonium 16 17 We could probably even buy it at a pretty around. good price from European countries that really don't 18 19 want to use MOX because it's so expensive. So why not 20 just mix it. Instead of MOX it, let's mix it, and 21 then do any of the other things we might do that 22 wouldn't have the reactor risks associated with it, 23 which I think you way underplayed in your cost benefit 24 on the off-spec MOX, and DOE underplays on the 25 immobilization decision. So, anyway, I'm now

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1	advocating mix rather than MOX.
2	MR. CAMERON: And I think we we treat
3	that as a as a comment.
4	MR. HARRIS: As a comment, but let me just
5	make sure I understand, Mary. You're talking about
6	mixing the surplus weapons grade plutonium with
7	reactor grade plutonium and making reactor fuel?
8	MS. OLSON: No.
9	MR. HARRIS: Or you're saying mix oh,
10	I'm sorry. I got you. Mixing surplus plutonium,
11	reactor plutonium, making off-specification mixed
12	fuel, and storing that and disposing of it. That
13	MS. OLSON: What I'm suggesting is
14	isotopic degradation through mixing rather than
15	irradiation.
16	MR. HARRIS: Okay, got you.
17	MS. OLSON: It might take a large quantity
18	of reactor grade plutonium, which is why I'm
19	suggesting that other countries might have to be
20	vendors of this stuff. But it could be done. It
21	would isotopically degrade the weapons grade
22	classification. And then you would not have all the
23	reactor-related risks, which I believe you are still
24	underplaying in your analysis.
25	MR. HARRIS: Okay, that thank you,

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1	Mary.
2	MR. CAMERON: Let's go over here to to
3	Gregg Jocoy. If you'd introduce yourself to us.
4	MR. JOCOY: Sure. Thank you, Chip.
5	I'm Gregg Jocoy. I'm here representing
6	the York County South Carolina Green Party.
7	One question that I have. You talked
8	about these resident inspectors. Now, we've all heard
9	on the radio people reports that a listeria
10	outbreak has happened in a meat packing plant and 12
11	people have died and 40 billion pounds of meat have
12	been recalled and so on like this. They have U.S. DA
13	resident inspectors, as well. How long do NRC
14	resident inspectors stay at any one particular plant,
15	and what steps does the NRC take to assure that the
16	resident inspectors don't develop an unhealthy
17	relationship with the people that they're supposed to
18	be watching?
19	MR. CAMERON: We're going to go to David
20	for that one.
21	David? I think you have a sense of
22	MR. AYRES: Right.
23	Right now the time frame for resident
24	inspectors at the sites is a maximum of seven years.
25	And they are, you know, extensively trained in not

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1 fraternizing with the licensee, that kind of thing. 2 I've known several personally, resident inspectors who 3 lament about having to, you know, be kind of stand-4 offish in the community because they can't really 5 interact with a lot of the people that we meet because of their status as an NRC resident inspector. 6 7 Now, I'm not that familiar with the 8 residents at the reactor sites because I really deal 9 with just the fuel facilities. But that's -- that's 10 the way we've done. 11 MR. CAMERON: Thank you very much, David. 12 MR. JOCOY: Have any of the resident... MR. CAMERON: Gregg, we better get you on 13 14 the transcript. We'll give you a follow-up here. 15 MR. JOCOY: Thank you. Have any of the resident inspectors at any 16 of the power plants that have faced challenges like 17 Besse -- I've got my state legislator on my mind. 18 Ι 19 want to call it Bessie Moody. 20 Have any of the resident inspectors at any 21 of the power plants that have experienced difficulties 22 lost their job as a result of dropping the ball and not noticing problems they should have noticed in 23 24 advance, or have they been kept on? And, in fact, 25 have people who have been resident inspectors been

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1	hired by the companies that they were inspecting?
2	MR. CAMERON: David, do you have any
3	any information on that?
4	MR. AYRES: I really don't know about the
5	residents at the reactor sites, whether or not
6	anybody's been let go or whatever. I do know in the
7	fuel facility arena there have been a couple of times
8	where the resident inspectors, after their five to
9	seven years time was up, that they didn't want to
10	move, so they got a job with the licensee. So that
11	has happened.
12	MR. CAMERON: Okay, thank you.
13	Lou, did you have a question before?
14	MR. ZELLER: In your presentation here,
15	Tim, you talked about impacts on public health in your
16	investigation. And largely the discussion is about
17	cancer effects from ionizing radiation. Are you
18	familiar with some of the work of Dr. John Gothman
19	that (indiscernible) on some of the plutonium weapons
20	in the early days before he turned to medicine,
21	produced a report several years ago which point to
22	ionizing radiation in the form of X-rays as a major
23	component of ischemic heart disease, wholly and
24	separate from cancer. And what we have found is that,
25	for example, in Barnwell County, alone, there's a 15%

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1	elevated level of ischemic heart disease above the
2	average of the whole State of South Carolina.
3	MR. CAMERON: Was that considered?
4	MR. HARRIS: I think I think the answer
5	is your observation was correct, that we only
6	considered latent cancer fatalities as an impact. And
7	I don't know if you want to add more to that, Dave, as
8	far as I'm not familiar with the work of Dr. Goth
9	(sic).
10	MR. BROWN: I'm a little bit familiar with
11	Dr. Gothman's work. At this time his conclusions are
12	not part of NRC's bases for assessing risk from
13	radiation. I would be interested in the specifics of
14	the information you have about Barnwell County, if you
15	could give us a citation, that sort of thing.
16	MR. CAMERON: And it would be appropriate
17	if Mr. Zeller wanted to submit the information on Dr.
18	Gothman's work for us to to look at.
19	MR. ZELLER: We've got it.
20	MR. CAMERON: Okay, that's that's good.
21	Before I and we'll we'll take a
22	couple more questions and then go to comment, and then
23	we can come back, if we have time, for questions. I
24	know Linda has one, and Mary. And I just want to make
25	sure that is there anybody else who wanted to ask

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1	a question that we haven't heard from at this point?
2	(No audible response)
3	MR. CAMERON: Okay. Well, let's let's
4	go to Mary, you have one other question?
5	MS. OLSON: I think I'll fold it into a
6	comment.
7	MR. CAMERON: Okay, good.
8	Well, let's go to we'll go to Linda,
9	and then we'll we'll go over here, and then we'll
10	get started with the formal comment. All right.
11	MS. ODOM: Tim, can I ask about something
12	I read in this book that I was concerned about?
13	MR. HARRIS: Yeah, that that's
14	MS. ODOM: At Wilmington, North Carolina,
15	at a GEE plant, I was reading by the conversion of
16	uranium hexafluoride and uranium dioxide.
17	MR. HARRIS: Correct.
18	MS. ODOM: And it said they are changing
19	their process of converting that to from a wet
20	process to a dry process. I want to know have they
21	done that.
22	And also it says discharges are permitted,
23	are they're monitored to insure compliance with
24	permit requirements. I tried to find what the permit
25	requirements would be, like how much of a discharge

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1	can they release into the environment.
2	And I can I say one thing about the
3	Russians? By Talli Khizhnyak, he was the head of
4	I'm sorry. I can spell it. K-H-I-Z-H-N-Y-A-K, who is
5	head of the Russian nuclear agency, said it will never
6	happen, the MOX project with the United States. And
7	that we are paying their scientists, which I spoke to
8	the DOE, who was kind enough to talk to me earlier.
9	They we are still paying their scientists, but I
10	understand why; to keep from the plutonium getting in
11	terrorist hands, or Iraq, or which is probably a
12	good thing. But he does say that will never happen.
13	MR. CAMERON: Okay, this is Section 4
14	point
15	MR. HARRIS: No, I I got it, Chip.
16	MR. CAMERON:4 point for other
17	people, though, 4.4.2. And I'm glad you know that,
18	too. That's
19	MR. HARRIS: You mean not everybody is
20	familiar with the document as I am, Chip?
21	MS. ODOM: I read it.
22	MR. HARRIS: Thank you.
23	I think Dave's going to confirm that, in
24	fact, they have gone over to the dry process. That's
25	my understanding.

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1	MR. BROWN: I'm going to ask Dave Ayres to
2	confirm that.
3	MR. HARRIS: Oh.
4	MR. CAMERON: Let me bring this to you,
5	David.
6	MR. HARRIS: But but it but, Linda,
7	it's also important to note that we looked at both
8	processes.
9	MR. AYRES: Yes, the facility at
10	Wilmington converted over to a dry process two or
11	three years ago. I was the inspector during the time
12	of the conversion over to the dry process, and it has
13	happened. The (indiscernible) detail I believe are in
14	Part 20 either (indiscernible) in their license
15	application. And if you need some more information,
16	I'll get my project manager to send you some
17	information on it.
18	MR. CAMERON: Great.
19	Okay, let's go for a final question, and
20	then we'll
21	MR. HARRIS: Can we thank David for
22	coming? Thank you, David.
23	MR. CAMERON: Okay, here we are.
24	MR. KEISLER: This is Bill Keisler again.
25	In July of 2000 there was one of these meetings in

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Columbia, South Carolina. I attended that one. And I don't think there was a transcript made of that, at that meeting. But I asked a question there and it's never been answered. It was supposed to have been and it never has.

There's an umbrella of protection for the 6 7 public that is never breached, ever, under the Atomic Energy Act. And yet, when we look now at the NRC-DOE 8 9 interface, or even state -- State of South Carolina, I believe it indicates there's 199 licenses they have. 10 11 There are issues in the State of South Carolina, 12 violations of the Atomic Energy Act under 10 CFR 150, issuing licenses. There was one with an issue of a 13 14 DOE contract for plutonium in a city in violation of 15 that, who was allowed to continue to operate for seven 16 years.

17 This is a unique situation now where geographically NRC has a facility inside a whole DOE 18 19 boundary, 350 square miles. How is the hierarchy of 20 authority, in the event of an accident or event, in 21 that situation who holds that? Typically, with the 22 way the Atomic Energy Act is written, it appears, with the Energy Reorganization Act of '74 and the DOE which 23 24 was in '78, that the DOE exemptions from the NRC --25 NRC authority are predicated on certain conditions.

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1	That that would fail the umbrella means, and it would
2	instantaneously (indiscernible) the NRC.
3	How in this integration of regulatory
4	authorities, what is the hierarchal protocol for
5	accident events?
6	MR. KOKAJKO: Okay, I am by the way,
7	I'm familiar with certain licensing things that we do
8	regulate DOE on. For example, the the Independent
9	Spent Fuel Storage Installation at the Idaho National
10	Environmental and Engineering Laboratory which is
11	storing the old Fort St. Berin spent fuel. We also
12	regulate them and their storage of the Independent
13	Spent Fuel Storage Installation at Fort St. Berin. So
14	that fuel is in two different locations.
15	This is very comparable to the situation
16	at Idaho where there is a small regulated area that we
17	control within the overall site complex at the DOE, at
18	the at the Idaho lab. In that case, DOE had to
19	meet all our regulatory requirements for whether
20	meeting the safety specifications to emergency
21	planning, everything that that they would normally
22	have to do. And, in fact, we ended up imposing upon
23	them more stringent requirements in some areas for
24	that facility and within the DOE complex.
25	And in this case, we would do the same

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1	thing. The MOX facility would be regulated according
2	to our safety standards. It would have to meet our
3	standards in terms of emergency planning, procedure,
4	control, configuration control, and a whole host of
5	other things. And we would have that authority over
6	them, whether it was through licensing, inspection, or
7	enforcement. So that is that is allowed by the
8	Atomic Energy Act, the Energy Reorganization Act. It
9	is very well understood that once they submit to our
10	licensing program that is what the rules of the game
11	are.
12	MR. CAMERON: And that cannot be
13	delegated, under the Atomic Energy Act, to an
14	agreement spec.
15	MR. KOKAJKO: No, that cannot be delegated
16	to an agreement spec.
17	MR. CAMERON: And, Dave, do you have some
18	things to add on that? And you have a mic there, too.
19	MR. BROWN: I thought I would have. We
20	did have a question last night, I believe. There is
21	a question about, for example, there are many areas
22	that Lawrence outlined. One is radiation safety
23	standards, you know, which ones apply. And we think
24	we've laid that out pretty clearly for DCS, the
25	applicant, with respect to how to treat workers who

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1	would be in the Savannah River Site area who are not
2	employees of DCS and that sort of thing. So that
3	issue, I think, has been resolved.
4	MR. CAMERON: Okay, thank you. And if we
5	do have time to follow up on any of this, we will.
6	But I think we should get on with the hearing from
7	from all of you in terms of what your comments are.
8	We're going to go to Mr. Lou Zeller first. Lou, if
9	you could come up and talk to us.
10	MR. ZELLER: Okay, thank you. My name is
11	Lou Zeller, and I'm on the staff of the Blue Ridge
12	Environmental Defense League. And I appreciate the
13	opportunity to speak tonight.
14	Many of you know my co-worker and my wife
15	of going on seven years, Janet. She had hip surgery
16	this week. She'd love to be here tonight. But she
17	came home from the hospital today and she's recovering
18	quite nicely. So I do want to get into my comments,
19	though, tonight about this facility.
20	I do have to agree with with Linda, in
21	that this may seem like a collective whistling past
22	the graveyard, in that the international tensions and
23	the problems between the United States government and
24	the Russian government and the French government at
25	this time could ultimately scotch this project. The

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international agreements required for it to keep moving forward, the parity requirements explicit in the agreement may ultimately cause this project to come to a grinding halt.

5 The \$309 million increase in fiscal year 2004 budget appropriation for the plutonium fuel 6 7 factory alone could be much better spent in some other So, the long and short of my comments is 8 area. tonight that the no-action alternative would save us 9 a great deal of money, and get us back on the right 10 11 track on how to deal with dismantling weapons of mass 12 destruction here in the United States.

of the problems 13 One that we have 14 identified with regards to safety lapses, false 15 promises, environmental violations, and public health hazards, and illegal activities, have to do with one 16 17 of the partners of DCS, the "C," which stands for Cogema over the last two decades. The record reveals 18 a company which ignores or flouts the law, and which 19 20 is oblivious to the dangers to public health and 21 safety caused by its operations in Europe and in North 22 America.

23 Cogema is a French company. It is a lead 24 partner in DCS, and the sole provider of experience 25 and techniques regarding the reprocessing of

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commercial plutonium into fuel. However, weapons grade plutonium has never been reprocessed into commercial nuclear fuel.

4 While I won't indulge in French bashing, 5 as is -seems to be the -- the rage these days, at least on some of the talk radio stations, the problems 6 7 of dealing with a French company which is outside of United States law is a problem for the Nuclear 8 9 Regulatory Commission. So you do have to deal with that. Cogema's flagship in -- in Europe is its giant 10 11 reprocessing facility at La Hague on the north coast 12 reprocessing, of France. During toxic and radiological chemicals are released into the air and 13 14 the water at that facility. A recent report released 15 by the European Parliament found that the combined discharges from La Hague---and the nearby Sellafield 16 Plant in the United Kingdom---reprocessing sites 17 correspond in contamination to a large-scale nuclear 18 19 accident every year.

20 Cogema has consistently ignored 21 international treaties that safeguard the seas from 22 contamination, and Cogema has chosen to disregard 23 findings of extreme contamination and health effects 24 resulting from its own reprocessing activities, and 25 has refused to abate its discharges as requested by

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1	the European governments, and as mandated by
2	international laws and treaties.
3	The U.S. Nuclear Regulatory Commission
4	simply cannot and must not repeat the failures of the
5	U.S. Department of Energy in this matter. Cogema's
6	track record must be considered by the Commission
7	before issue a license for construction of a plutonium
8	fuel factory. This is entirely proper and permitted
9	under the National Environmental Policy Act.
10	We hereby request that, as a function of
11	its environmental review of the mixed oxide fuel
12	fabrication facility, the plutonium factory, that the
13	Nuclear Regulatory Commission investigate the track
14	records of Cogema, as well as Stone & Webster and Duke
15	Energy. I might point out to a a quote which comes
16	out of the Augusta Chronicle regarding Cogema and the
17	failure of the Nuclear Regulatory Commission thus far
18	to do this very thing. In July 14, 2000, Augusta
19	Chronicle article, Nuclear Regulatory Commission's
20	Melanie Galloway said that, quote, "Whatever their
21	record, good, bad, or indifferent, it isn't going to
22	affect our decisions," end quote. This assumption
23	that Cogema, Inc., will abide by United States law
24	that's the American affiliate of Cogemaleaves much
25	to be desired.

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1 Two other points which I would like to 2 in my time tonight have to do with cover the contamination from such a facility. 3 We have been 4 commenting and investigating and doing research in the State of South Carolina offices with regards to the 5 Clean Air Act permit which was recently issued for the 6 7 Savannah River Site. Now, there are 1,500 emission sources, air emission sources located within that --8 9 the Savannah River Site reservation emitting a great many radio nuclides, 10 as well as hazardous air 11 pollutants. The national emission standards for radio 12 nuclides, other than radon, from the Department of Energy facilities states that emissions of radio 13 14 nuclides to the air shall not exceed that which would 15 cause any member of the public to receive a dose of ten millirems per year. 16 Emission measurements from the stacks are stipulated in the existing Title V 17 18 permit.

But the millirem standard for the maximum 19 20 allowable dose to the public is an ambient standard, 21 not an emission limit. The permit fails -- the 22 permit fails require existing to any direct 23 measurement of radioactive dose to the public, and 24 cannot be enforced as a practical matter. This is a 25 serious problem for many of the radio nuclide-emitting

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facilities, including the proposed plutonium fuel factory.

3 One other point I'd like to go into here 4 tonight is the fact that it is very difficult to 5 estimate the emissions because of the problems with the HEPA filters, the paper filters, the high 6 7 efficiency so-called filters which are an unreliable means of controlling radio nuclide emissions. We have 8 been in touch with Dr. Peter Richards, who is a former 9 member of the Centers for Disease Control Advisory 10 11 Panel at the Idaho National Engineering Laboratory. 12 Dr. Richards has outlined the problems with alpha emitters like plutonium which creeped through four 13 14 HEPA filters in sequence, the problems with alpha 15 migration, reintrainment of particles, and alpha recoil, which is a DOE term for the ability of alpha 16 17 emitters, like plutonium, to creep through these filters. 18

The bottom line here is no one knows how 19 20 much plutonium comes out of the last filter. The 21 Nuclear Regulatory Commission needs to get to the 22 bottom of the plutonium releases for this factory 23 before moving forward. Once again, thank you for the 24 opportunity to speak here tonight. And we will be 25 submitting written comments before the comment

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1	deadline.
2	Thank you.
3	MR. CAMERON: Thank you very much, Lou.
4	Let's go to Dr Dr. Lew Patrie. And I
5	apologize if I'm mispronouncing your name, Dr. Patrie.
6	DR. PATRIE: That's that's perfectly
7	all right, Chip. Everybody else does.
8	Appreciate the presentation and the
9	opportunity, very studied reports, so many people here
10	tonight. I want to just say that from the perspective
11	of Physicians for Social Responsibility, I wish to
12	cite the dangers and massive costs of the entire
13	plutonium bomb fuel experiment, the lesser costs and
14	dangers of the option of plutonium immobilization, and
15	how such a venture could affect us in North Carolina
16	and the general area, and an apparent hidden agenda.
17	Dangers stem from this entire plutonium
18	fuel experiment. The U.S. portion of the proposal
19	involves shipment of plutonium from dismantled nuclear
20	weapons sites in Western states, some likely by way of
21	Interstates 40 and 26 en route to South Carolina. The
22	greatest transportation risk would be an accident in
23	which plutonium metal, which rapidly oxidizes when it
24	comes into contact with air, would vaporize or burn
25	and disburse its deadly particles, contaminating the

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1	air, our citizens inhale, the water upon which we
2	depend, and the soil upon which we grow crops and upon
3	which animals feed.
4	Inasmuch as you've already brought up the
5	subject of terrorism in regard to a presumed reduction
6	of MOX fuel and supposedly reducing the risk of being
7	taken over and used by terrorists, I would also like
8	to say the increased risks of the risks of
9	terrorism on the highway create additional concerns.
10	Is there some reason this is making this
11	clicking noise?
12	MR. CAMERON: I was going to make a joke
13	that sometimes a raccoon gets under the podium.
14	DR. PATRIE: I don't know if I had a
15	glottic click in my throat or something. But, anyway,
16	I am sorry if it's disturbing folks.
17	MR. CAMERON: Don't worry.
18	DR. PATRIE: Creating the proposed MOX,
19	mixed oxide fuel fabrication factory, would be
20	counterproductive. Such a facility at Savannah River
21	Site would place workers' health at greater risk from
22	unnecessarily increasing their plutonium exposure. It
23	would greatly increase the radioactive waste generated
24	that are already highly contaminated at the highly
25	contaminated bomb-building plant. It places

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populations in nearby areas at increased risks of exposure to plutonium and other byproducts of such a facility as stated.

4 Т think that there has to be some 5 consideration of the risks that are presented by the I've already stated in 6 experts for reasons my 7 question. I would feel better about it if there were some carefully carried out, long-term epidemiological 8 studies by impartial, qualified scientists of workers 9 and other potentially exposed people, populations. 10 11 These should have been conducted on populations which 12 have been exposed through air, water, or food ingestion over the many decades of the nuclear 13 14 industry. Such scientists should not have their mind 15 sets prejudiced by assumptions that were made as a result of extrapolating the data gathered from 16 17 Hiroshima and Nagasaki experiences, which are pretty well limited to high levels of acute radiation. 18 Ι 19 fail to understand why such studies haven't been 20 carried out and publicized; and further, how a DEIS 21 can be adequately carried out without the results of 22 such studies.

Inseparable from the proposed MFFF is the fact that once manufactured, plutonium bomb fuel is destined for use at Duke Energy's McGuire and Catawba

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1 reactors within 20 miles of downtown Charlotte. 2 Plutonium fuel is experimental, in that the fuel 3 derived from weapons grade plutonium has never before 4 been used in commercial reactors. These plants are 5 poor choices for an experimental program because their cooling systems depend on constant supplies of ice. 6 7 In the event of failure for even a few hours, there is a risk of a severe accident. Plants are encased in 8 weaker metal plates than the preferred thicker amounts 9 of concrete. Plutonium bomb fuel is inherently more 10 11 dangerous than currently used uranium fuel, in that it 12 bombards structures within the reactor chamber with more damaging radioactivity, and would be more 13 14 difficult to control, increasing the likelihood of a 15 Chernobyl-type disaster. Compared with currently used uranium, should a nuclear catastrophe occur in a MOX 16 fuel reactor, up to twice the number of cancer deaths 17 would result due to the nature of radioactivity 18 19 produced.

The possibility of terrorism should not be 20 21 ignored, either to the reactor vessel, itself, or to 22 the spent fuel rods that are stored onsite. A worst case scenario would result in the entire Charlotte 23 24 area becoming a nuclear wasteland for decades to come, 25 with national repercussions, and of the most

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population becoming refugees. More and more danger 1 2 comes from vastly increased radioactivity produced 3 through MOX. Promoters deceptively claim it would rid 4 the world of plutonium, making it unavailable for 5 future nuclear weapons use. As you well know, plutonium will be produced while MOX fuel generates 6 7 electricity. The proposed parallel tract whereby plutonium is presumably converted into fuel in both 8 9 the U.S. and Russia reactors would markedly increase the availability of plutonium on a global scale. 10 It 11 would work contrary to our national interest. It 12 would favor further nuclear weapons proliferation. Furthermore, MOX would vastly increase amounts of a 13 14 radioactive waste for which no satisfactory solution 15 has yet been discovered. The railway or highway transportation of increased quantities of radioactive 16 17 waste to proposed Yucca storage facility in Nevada would create new and extensive dangers which would 18 19 further increase the risk to large segments of our 20 population because of the risks of terrorism. 21 Finally, when the Yucca facility would be filled to 22 capacity, there would remain at Catawba and McGuire 23 sites almost as much high level nuclear waste as is at 24 present. In addition, these sites will continue to be 25 attractive targets to terrorists due to their

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1 proximity to a large population and financial center. 2 Immobilization is the safest and least expensive 3 alternative to converting plutonium into fuel. Even 4 though this has been discarded as an option, ongoing 5 immobilization was to have been developed along with It would consist of vitrifying 6 the MOX program. 7 plutonium, and made into a safer material for indefinite storage. It would substantially reduce the 8 risks of accidents and terrorist procurement of this 9 deadliest of all elements. Although it is the best 10 11 choice for a problem like plutonium that we know of 12 today, all funds for this alternative have been deleted from the budget, and the concept of such an 13 alternative appears to have been placed on 14 an 15 indefinite hold. Failure to consider this option has to be considered an abysmal decision. There appears 16 to be a hidden agenda with the decision to continue 17 with the MFFF, despite the risks and uncertainties of 18 19 proceeding with plans for this facility. The 20 production of quantities of tritium in three of TVA's 21 nuclear reactors which will be processed at Savannah 22 River Site has to have significance. Such quantities of tritium can be used only in the production of 23 24 nuclear weapons, and MFFF could make plutonium 25 available in sufficient quantities for the production

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1 of nuclear weapons. What other explanation could 2 there be that another objective of the MFFF is in 3 conjunction with the production of large numbers of 4 new nuclear weapons. If this premise is valid, this 5 should be acknowledged as part of the DEIS, and should be made apparent to the U.S. citizenry upon whose 6 7 taxes this project would depend. Without а this, 8 satisfactory explanation of the DEIS is 9 If these premises are correct and we're complete. planning to create a new massive buildup of nuclear 10 11 weapons, it will create a massive increase in the 12 world's supply of weapons of mass destruction, and stimulate even greater risks of nuclear weapons 13 14 proliferation. For the reasons I have stated, the 15 proposed MFF should not be approved for construction. 16 Thank you. 17 MR. CAMERON: Okay, thank you very much, Doctor. And I hope that you will submit those written 18 19 comments to us. 20 I will expand on them and DR. PATRIE: 21 submit them later. 22 Okay, great. MR. CAMERON: Thank you. 23 Let's go to -- to Mary Olson. That's --24 and then we'll -- we'll go to Peter Sipp. 25 Mary?

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1	MR. JOCOY: Chip, are we going to be able
2	to hear from people whose name whose faces we don't
3	recognize? I think there are some other people on the
4	list who wanted to speak.
5	MR. CAMERON: Oh, yeah, we're going
6	through the list of people who signed up to talk,
7	Gregg. So we'll hear them and we'll know who they
8	are. And this is Mary Olson.
9	MS. OLSON: I don't mind coming later if
10	somebody needs to leave.
11	MR. CAMERON: I think we're fine. I don't
12	think we have any problems with that, so go ahead,
13	Mary.
14	MS. OLSON: My name is Mary Olson. I'm
15	the Director of the Southeast Office of Nuclear
16	Information and Resource Service. We are a national,
17	and now international organization in our affiliation
18	with the World Information Service on Energy, and have
19	15 offices on four continents.
20	The office in the Southeast has been
21	primarily focused on the MOX issue, and I want to
22	thank the NRC for coming to Charlotte, and I want to
23	also give the information that a number of people I
24	know, in addition to Janet Zeller, are here in spirit
25	because of other health situations and competing

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making MOX will, in fact, prevent plutonium from being used for mass destruction. We are asked to take the Department of Energy's word for it that the Russians will only accept U.S. MOX fuel production to stay in the program, and that NRC, even considering in detail the environmental consequences of any other option, would violate this consummate agreement.

8 Nuclear Information and Resource Service 9 rejects the idea that making plutonium fuel from 10 weapons grade plutonium will safeguard it from use in 11 weapons of mass destruction. In fact, we believe that 12 placing this material into commerce will vastly 13 increase the risk that weapons grade material will be 14 diverted, both in this country and in Russia.

15 Further, since the inception of this program, the U.S. DOE has stated that the weapons 16 17 grade MOX fuel would be irradiated in other countries, in addition to Russia. First Ukraine was named; 18 19 later, simply, quote, "Russia trading partners" were 20 added to the list. In case people have failed to 21 notice, many of the countries which the current 22 administration in the U.S. labels "evil" or "roque" 23 nations are on the list of those who could potentially 24 receive this material.

If Russia supposedly will not accept any

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alternative that would not degrade the isotopic composition of the plutonium, why would the United States accept a program that would -- could send weapons grade MOX fuel to countries like Iran, Syria, and potentially some day Iraq. And I'm sorry I don't have the full list of trading partners, but I'm sure it's available in the public record.

very simple alternative was 8 А never 9 considered by the DOE, and only recently considered by myself, which is to mix---M-I-X---mix weapons grade 10 11 plutonium with reactor grade plutonium that could be 12 purchased from any number of countries that have a huge plutonium, quote, "waste burden" that will be 13 14 using it as problematic, expensive, deadly MOX fuel. 15 There's a number of European nations with such inventories, not to mention Japan. 16

This mixed plutonium would then be isotopically degraded, and could be considered for a number of alternatives to MOX, none of which I am specifically advocating, but none of which would carry the risks associated with reactor use.

Instead, the U.S. Department of Energy, with lots of help from the U.S. Nuclear Regulatory Commission, is going forward with a program that places Charlotte at unprecedented risk. Plutonium

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1 fuel generates more radioactive activity and more 2 deadly radionuclides than uranium fuel. In the event 3 of an accident, or, heaven forbid, a retaliatory 4 attack against our government or our corporations, the 5 health consequences would up to double in proportion to the MOX fuel in the reactor core. And I will have 6 7 to spend time with the current document to look at the 8 estimates that are given there.

9 But that could happen on Lake Norman or Lake Wiley. We all now agree it could happen. 10 The 11 question is will it happen, and when will it happen. 12 only hope that Duke its We can Energy, in international dealings, is making friends. 13 And this 14 is simply the tip of the iceberg.

15 Ι appreciate NRC want to that has faithfully analyzed the environmental justice impacts 16 17 of the proposed factory. At the same time I am deeply disappointed. The analysis that shows that low income 18 19 and minority people are disproportionately impacted by 20 the proposed plutonium fuel factory also shows that 21 these same people are and have been disproportionately 22 impacted by the current and previous missions of the 23 Savannah River Site. There is no recognition that the 24 decision to add new radioactive missions to this site 25 will impact a region already weakened by previous and

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ongoing exposures.

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2 Not only is the cumulative and synergistic 3 nature of this situation not fully expressed in the 4 NRC analysis, but the proposed mitigation steps do not 5 address this ongoing routine and repeated exposure. And I will insert here that the work of Dr. Alice 6 7 Stewart, mentioned earlier, found that the Hiroshima and Nagasaki studies are deeply flawed, because only 8 the survivors of an extremely traumatic and fatal set 9 of experiences are analyzed, and many of those who 10 11 were assumed to be outside the area walked into the 12 center to find their loved ones, or try to find their loved ones, the day of and the day after the actual 13 14 blast. And so that data has been reanalyzed by Dr. 15 Stewart to show that, indeed, the young and the old are at much higher risk for radiation. 16

17 A millirem is not a millirem, it depends on who got the millirem as to what the dose risk is. 18 19 And I will also add my other comment here, that the 20 EPA has begun to adopt a separate set of evaluation 21 standards for childhood cancers, and I think the NRC 22 should follow suit and not use the standard man. Nor 23 does the evaluation in environmental justice consider 24 the long-term impacts of the waste from the MOX fuel 25 factory, since the wastes are conveniently put into a

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shell game and moved over the NRC regulatory boundary, but not over the boundary of impact of these very same people.

4 This is another case of the powerful and 5 the wealthy or the better informed dumping on those 6 with less power or fewer resources, and less 7 information. I have to admit that I have a part in 8 this situation. In the years that DOE was considering 9 where to put the MOX factory, I had working 10 associations with people at the alternate sites under 11 consideration in the West. There was a strong fight 12 from people in Washington, Idaho, and Texas. Nuclear Information and Resource Service opposes a MOX factory 13 14 anywhere, but we erred in not working more proactively 15 in the Southeast to prevent the siting at the Savannah And I want to point out, while I'm in 16 River Site. 17 this room tonight, that it's rather convenient that the MOX factory, its potential for accidents and the 18 19 environmental justice dimensions of those accident 20 consequences, are far from Charlotte and Duke's 21 headquarters.

Nonetheless, I do not believe that if we had placed our limited resources in the Southeast at that time, it would have been sufficient, since the decision to put the MOX factory at SRS was a *fete a* 

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*compli*. The Savannah River Site is where DOE has always processed the bulk of the plutonium it generated. Now the MOX factory has been used as the camel's nose under the tent or the cover story for the Department of Energy's long-term plan to return to making new nuclear weapons. This is no longer swords into plowshares.

As such, the U.S. MOX program has become 8 a magnet for other plutonium missions. We must turn 9 again to the environmental justice concerns and admit 10 11 that there will be even more elevated risks of 12 accidents if the modern pitt factory is sited at SRS. There will also be more risk of accidents at the pit 13 14 disassembly and conversion facility if it is 15 processing twice or greater amounts of plutonium. There will also be more ongoing exposures to the 16 17 All of this is a direct workers and the public. consequence of DOE siting the pit conversion and 18 19 plutonium polishing at SRS, ostensibly for, quote, 20 "peaceful MOX."

The second cover story for these new pits is that it is simply refurbishment of the existing U.S. nuclear arsenal that is there for deterence. This statement is no longer credible. First, the current administration has declared deterrents a thing

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1 of the past and stated its decision to use nuclear 2 weapons preemptively. Secondly, the Oak Ridge Y12 3 factory has not -- has not only been updated, it has 4 been redesigned to make new nuclear weapons assemblies 5 for small, usable mini-nukes. Third, the production levels of tritium in TVA reactors, as approved by the 6 7 U.S. NRC, indicate an intention to fuel as many as 8 60,000 weapons. This astronomical number might seem 9 ludicrous since the current U.S. arsenal has the potential to destroy every population center on earth 10 11 several times over. On the other hand, the stated 12 U.S. intention to weaponize near space would require a number of weapons on this order. I can only imagine 13 14 the payoff that Duke Energy must have negotiated to 15 posture disarmament while providing the cover for the most massive arms deployment in the history of the 16 17 world. We are asked by NRC to believe that the 18 rejection of any alternatives to MOX is to keep the

19 rejection of any alternatives to MOX is to keep the 20 Russians at the table. Get real. This table has 21 nothing to do with the Russians, except to put them 22 and all other nations in the servile position that 23 they will share once the U.S. has control of near 24 space and can target any site on earth from space. 25 Surgically, of course.

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1	When it comes to the local aspects of all
2	this, it is important to note, for those in this room
3	who live in the Charlotte area, it is entirely
4	possible that the brief consideration given by the NRC
5	in this DEIS to the environmental and health impacts
6	of the reactor use of MOX fuel may be the only
7	environmental impact statement analysis we ever see.
8	This document affirms that other environmental reviews
9	will be conducted for any license amendment to use
10	MOX. This assertion, we hope, means that there will
11	be an environmental impact statement on the upcoming
12	MOX fuel test, or LTA, not mentioned at all in the
13	current report, and also when Duke applies for a
14	license amendment for each of the reactors to begin
15	using MOX fuel, if this program gets to that point.
16	There is no basis for confidence in these
17	environmental impact statements (sic) will, however,
18	ever be written, or that the public will have the
19	opportunity to be involved in these decisions. I am
20	being charitable here, since clearly we have been
21	effectively shut out of this one by the assertion that
22	the Russians can dictate the terms of our program.
23	Duke has four license amendment applications for the
24	20-year extension of the operating licenses of Catawba
25	and McGuire pending. Duke avoided any consideration

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1 of their participation in the MOX fuel program in 2 these applications. When Nuclear Information and 3 Resource Service and the Blue Ridge Environmental 4 Defense League brought MOX into the license renewal 5 process, the Atomic Safety Licensing Board first accepted us -- the contentions. But then the ASLB was 6 7 overridden by the five NRC commissioners on Duke's Therefore, MOX use is not reflected in the 8 appeal. NRC's supplemental EIS for the Duke reactors' license 9 renewal at this time. 10

11 The MOX fuel test or lead test assembly 12 likely be given will only an internal program environmental finding 13 assessment, and of no 14 significant impact. NIRS will challenge this 15 amendment in an effort to broaden public participation in the decision to put people in this community at 16 higher risk, not to mention those along the transport 17 routes to and from Europe, and the potential for 18 19 malicious diversion in transit. Nonetheless, it will be a miracle if we win a full EIS for the test fuel. 20 21 The U.S. NRC could act in good faith by ordering that 22 an EIS on the test fuel be prepared because the unique nature of this program and the fact that the overall 23 24 risk environment has changed since the last time such 25 a matter was considered for significance of impact,

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1	which I believe would be the transport across
2	Michigan, which was so heavily opposed by the local
3	population, but nonetheless pursued by DOE.
4	As for the reactor license amendments to
5	use MOX fuel, we similarly hope that the NRC will
6	require that a full EIS be done for each of the
7	reactors. We are not assured of this, however. In
8	1991, when then NRC Chairman Meserve was asked
9	directly at a meeting whether the use of MOX fuel
10	would trigger a full EIS he said no. Certainly this
11	was an opinion, and an opinion that NIRS, and we
12	believe the residents of Charlotte and the region, do
13	not agree with. And we hope that the new chair will
14	reverse this point of view.
15	This brings me, finally, to the concerns
16	I raised in 1996 when then U.S. Secretary of Energy
17	Hazel O'Leary announced the plutonium surplus
18	disposition program in a public press conference.
19	That day I was privileged to ask the Secretary a
20	question that was featured later that evening on the
21	Leher News Hour. My question started by pointing out
22	that it is likely that MOX fuel use would increase the
23	amount of plutonium in the so-called low level waste
24	from the operations of nuclear power reactors. My
25	question was: What would the impact of that

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additional plutonium be on the newly proposed, socalled low level radioactive waste dumps? The Secretary assured me that day, and the viewing public that night, that there would be many analyses performed under the *National Environmental Policy Act* before the decision to make MOX fuel would be finalized.

The Department of Energy did not analyze 8 the impact of MOX fuel use on reactor waste in any 9 depth, let alone any other affiliated nuclear service 10 11 such nuclear laundries, as component repair, 12 decontamination services, or decommissioning. We were told that the NRC would do this. Today we 13 are 14 reviewing a draft environmental impact statement that 15 devotes, perhaps appropriately, only a fraction of its volume to the reactor use -- to the reactor use of the 16 17 fuel the factory would produce. But is not the reason for the production of the fuel its use? 18 Is it not 19 justified, the whole program, because of production of 20 electricity? The NRC should have done a programmatic 21 EIS that would encompass the impacts of from what is 22 known from all phases of this program. Instead, there are all these cracks. And, barring NRC decision to 23 24 close them, my questions will continue to fall 25 through, right along with the victims. It is -- is it

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1 not the reason to not produce this fuel to avoid the 2 potentially catastrophic impacts that it could wreak on this very location and a wide radius around here? 3 4 Once again, the federal government is 5 proceeding with decisions made long ago behind closed doors, and now engaged in a masquerade where their own 6 7 employees are told it is their job to play by the rules that will, in the end, inevitably deliver the 8 9 right decision, no matter how thin the stated In the end, that thin veil reveals 10 justification. 11 beneath the players who are paid to play this game, 12 Duke Cogema Stone & Webster, civil servants we like very much, doing their job. But who is really paying 13 14 them? Who is paying them? 15 You and me. Our tax dollars. Us. I'm almost done. In the end it is left to the victims to fight for their rights. It is not too late to stop

16 17 this mess. And I call upon all those who want to help 18 19 to join forces with all the other potential victims 20 here in Georgia, in South Carolina, to support the 21 organizations that are intervening in these licensing 22 proceedings, and ultimately into federal court, if 23 that's where we have to go. Your time and your money 24 are needed. It is sad that we must first pay these 25 folks---it is tax season. Just remember some of your

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1 money goes to DOE and then to DCS and then to NRC. 2 That's how these guys get paid. And then also pay to 3 stop them. But that is the way it is when the so-4 called protector of the U.S. public health and safety I sound completely 5 sells out to Minatom and DOE. resigned, but I do believe in miracles. NRC, it's not 6 7 too late to change your mind. We support the no-8 action alternative, including not transporting plutonium at this time, particularly when this country 9 10 is at war. 11 NIRS will be submitting written comments. 12 We appreciate this opportunity to speak tonight. MR. CAMERON: Okay, thank you, Mary. 13 14 [Applause.] 15 MR. CAMERON: Let me go to Peter Sipp, and 16 then we're going to go to Gregg Jocoy. 17 MR. JOCOY: Do you know (indiscernible)? MR. CAMERON: I don't -- I don't know. 18 19 But we're calling all the people who -- who signed up. 20 There's another person after you; okay? 21 MR. SIPP: Thank you, Tim, and everyone And thanks for 22 from the NRC, for coming today. 23 putting all the work you put into this book. Just 24 didn't happen in five minutes. 25 And you are right about the minorities

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1	being affected. Because I lived in Georgia for 21
2	years and I know the area quite well. I can't agree
3	with the numbers part. I know you made a mistake and
4	then you and then you changed it. I still can't
5	agree with it. I worked at the SRS in the "K" area
6	for six months, and there's a whole lot of folks over
7	there that would be affected if something was to
8	happen at the at this new these new places.
9	And then your mitigation plan isn't
10	isn't good enough. Sorry, but on Page 515 it it
11	doesn't say anywhere where you'll have a meeting, how
12	many meetings you'll have. And you ought to say,
13	"We're actually going to have an actual evacuation.
14	We're going to practice," to give to give the
15	locals like in school, when we went to school we'd
16	have fire drills where we'd leave our classroom and
17	we'd go down to the other hall and we'd wait or
18	whatever. We that's that ought to be part of
19	it.
20	Back to the part about being real familiar
21	with the Georgia and South Carolina area, there's a
22	whole lot of two-lane roads and they would get clogged
23	by people trying to get away. If there was a real
24	accident and everybody was trying to get away, there'd
25	be there wouldn't be people couldn't get away.

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5 And for you Cogema employees, you people from France, I want you to know I'm very proud of your 6 7 president, President Chirac. He wanted to take care 8 of the Iraq situation with inspections and the 9 President over here wanted to give the Turkey --Turkish people \$26 billion so that our folks could go 10 11 there and our supplies could go there. \$26 billion 12 could buy a whole lot of inspectors for a very long time, and wouldn't anybody gotten hurt like -- like 13 14 they are right today, people being maimed and cut up. 15 So the best toast in the world is French toast, and the best fries in the world are French fries. 16 Mv --17 Mary's and my daughter is engaged to a Frenchman. Ι take my hat off to the French people. I can't do that 18 19 for -- for the administration over here trying to beat 20 up on everybody. Doesn't work well. It's not --21 people don't accept that.

And just like it doesn't work to -- to force all the -- all the smiling faces at the PR meetings that supposedly are going to be had in the minority communities, all those smiling faces, that

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1	ain't going to be good enough to get people away when
2	there's a when there's a mess, when people got to
3	get away. All them smiling faces, that's not going to
4	be good enough. You need to actually have evacuations
5	and have people try to get away so they can get used
6	to it, what roads they should go on.
7	And and then there's another small
8	comment. When people say "the environmental," well,
9	that's almost right. It's our environment. Takes up
10	the same amount of space in a in a paragraph.
11	"Our," rather "our," O-U-R, is three letters, just
12	like T-H-E. Whereas "the" implies separation, "our"
13	implies ownership. Can't live here without clean air
14	and clean water. We just can't do it.
15	So I thank you, everyone in the NRC, and
16	you all have a tough job. I don't think I'd want to
17	be there. But, so thanks for the chance to talk. And
18	I think it'd be worthwhile to consider mixing the
19	the bomb grade plutonium with the other, like Mary was
20	saying. So if you all would consider that, that'd be
21	a good good option, also. There's still time.
22	MR. CAMERON: Okay, thank you. Thank you,
23	Peter.
24	Our next speaker is is Gregg Jocoy.
25	MR. JOCOY: Thank you, Chip. I'll be

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1 first presenting a statement on behalf of James E. 2 Smith, Jr., who is a member of the South Carolina 3 State House of Representatives, minority leader 4 representing the Democratic Party in the South 5 Carolina State House of Representatives. It's addressed to Michael Lesar, and it says, "Dear Mr. 6 7 Lesar," is that pronounced right? Lesar, Lesar (pronouncing). 8 9 MR. CAMERON: Lesar. 10 MR. JOCOY: Lesar. Okay. 11 "I write you today in regards to the 12 Nuclear Regulatory Commission's draft environmental impact statement on the impact of 13 14 building a new MOX plutonium fuel factory at 15 the Savannah River Site. I understand that the NRC has held public hearings to have public 16 17 input as part of the official record. Ι respectfully request the Nuclear Regulatory 18 Commission hold a public meeting in Columbia, 19 South Carolina, prior to the end of the comment 20 period at May 14<sup>th</sup>, 2003. 21 22 "Additionally, I respectfully request 23 that my name and address be placed on all 24 mailing lists for any further meetings and any -- and other public forums regarding a new MOX 25

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1	plutonium fuel factory at the Savannah River
2	Site. Thank you for your valuable time and
3	consideration. Should you have any questions
4	or concerns, please do not hesitate to contact
5	me.
6	"With kind regards, I remain,
7	"Very truly yours, James E. Smith, Jr."
8	MR. CAMERON: Gregg, can we attach that to
9	the transcript?
10	MR. JOCOY: Please. It includes the fax
11	cover sheet.
12	MR. CAMERON: Okay, thank you very much.
13	MR. JOCOY: I had been anticipating two to
14	three minutes, so I trimmed my my presentation
15	down. But apparently I've got more than two or three
16	minutes, so fortunately I brought the longer version
17	with me, too.
18	This is a
19	MR. CAMERON: Well, don't get too don't
20	get too carried away.
21	[Laughter.]
22	MR. JOCOY: Three pages versus two.
23	This is a statement of the York County
24	South Carolina Greens. The Nuclear Regulatory
25	Commission has issued a draft report for comment. The

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1	York County South Carolina Greens offer this comment
2	on the environmental impact statement on the
3	construction and operation of the mixed oxide fuel
4	fabrication facility at the Savannah River Site.

5 The Nuclear Regulatory Commission has 6 stated at public hearings on record that they are a 7 regulatory agency, alone, and plays no role in the 8 promotion of nuclear energy. Were the nuclear 9 industry examined with a careful eye, we are certain 10 that none of the justifications for nuclear energy 11 would stand scrutiny.

12 The environmental impact statement 13 addresses the question of cost versus benefits 14 throughout. Because of this dynamic, it is impossible 15 to believe that the Nuclear Regulatory Commission does not behave as a promoter of nuclear energy. 16 The 17 convergence of systems in the production of plutonium fuel and plutonium triggers for nuclear weapons lays 18 19 bear the hydra nature of nuclear energy. Nuclear 20 weapons cannot exist without nuclear power. The 21 plutonium fuel program is nothing more than an attempt 22 to prop up the nuclear energy industry, advance the 23 production of new nuclear weapons which may well 24 violate any number of international treaties the U.S. 25 subscribes to, and line the pockets of those anytime-

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1	patriots who benefit from the promotion of war and
2	misery. Were this an agency which had at its heart
3	dedicated to regulating nuclear energy, it would be
4	out of business within a few dozen years. Over that
5	sort of time frame, almost all the difficulties we
6	face from nuclear power will be manageable, providing
7	that the NRC acts in the public interest and shuts
8	down each and every operational power plant as unsafe.
9	Instead, the NRC continues to offer a fig leaf to the
10	nuclear industry, all the while deceiving the public
11	as to who gets the benefits and who takes the risks.
12	The simple, naked truth is that those who
13	benefit from plutonium fuel programs can be counted in
14	the hundreds, while those accepting the risks number
15	in the millions. The top shareholders who will get
16	the financial benefit of this program and the top
17	managers at the companies involved will get a huge
18	windfall from this program. New multi-million dollar
19	homes, top-of-the-line college education, and world
20	travel will be funded by this program, all for a very
21	few. These are the ones getting the benefit from this
22	proposal.
23	Who takes the risks? These people and
24	more? Perhaps. And certainly so in the case of some

of the top managers of the companies in question.

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1 However, the stockholders who ownership stake (sic) 2 entitles them to profits from the effort are unlikely 3 to live anywhere close to the places where risks are 4 the highest. A stockholder who lives in France, 5 Japan, Saudi Arabia, the Bahamas, or any other tax haven, nor one who lives in the swankiest places in 6 7 the United States is at substantial risk. In short, the rich folks will, by and large, take no direct risk 8 9 to personal well-being, and millions of average people will be close enough to the action to pay the costs. 10 11 The risk benefit analysis is unusable, for it assumes 12 benefits flowing that tiny portion of to а shareholders are enough to justify the risks borne by 13 14 millions of others, almost all of whom will have no 15 chance to get a portion of the benefits. 16 Recently, Fred Rogers died. During a 17 radio appearance before he passed, he took a call from a fellow who had heard him speak at his university's 18 19 graduation ceremony. During that speech he asked the 20 audience to think about the teachers who had brought 21 them to the point that they could graduate from

22 college. He gave them one minute. That's a long
23 time.
24 I ask us now to take a minute of silence

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Remember the children you have raised,

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to remember.

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1 the who raised you. Think parents about 2 grandchildren, born and as yet unborn. Think about 3 your loves, your friends, your co-workers. Consider 4 the serious nature of the risks you are considering 5 exposing them to, and think about plutonium fuel with them in mind. Think seven generations down the road, 6 7 about where we are, how we got here, and how we can 8 get out of this mess. One minute to think. 9 Concentrate on those we love the most, who love us the 10 most. 11 (Momentary pause.) Thank you. 12 MR. JOCOY: Okay, thank you, Gregg. 13 MR. CAMERON: 14 We have another speaker, and someone from 15 the Charlotte Green Party. I'm sorry I didn't, you 16 know, have your name on the list. 17 I wrote it down. DR. AULETTE: MR. CAMERON: Well, why don't you come up 18 19 and introduce us. 20 DR. AULETTE: Hello. My name is Dr. Judy 21 Aulette, and I'm a member of the Charlotte Area Green 22 Party. I'm here to present our organizations reactions to DEIS. 23 24 The Charlotte Area Green Party would like to thank the NRC for this opportunity to speak about 25

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1 the mixed oxide fuel factory proposed for the Savannah 2 River nuclear site. At first glance, the draft 3 environmental impact statement appears exhaustive, 4 even to the point of being overwhelming. However, there is no overall assessment of the risk which would 5 accumulate from all of the processes involved in the 6 7 MOX production, in its transport, and in its use as a Information is presented in such a fragmented 8 fuel. 9 manner that it is very difficult to see the whole 10 picture. No average citizen can be expected to glean 11 from the statement the information necessary for a 12 decision on whether or not to support the plans of -of Duke Cogema Stone for a MOX factory at the Savannah 13 14 River Site.

15 In addition to there being no overall assessment of risk for humans and the environment, 16 17 are several additional issues we wish there to First of all, there is no environmental 18 mention. 19 impact information on MOX use in the specific reactors which will eventually burn this fuel. These reactors 20 21 will have to be modified for MOX. The effects that 22 these modifications may have on performance of equipment at these reactors has not been considered in 23 24 this DEIS.

Second, there is no consideration given to

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1	the environmental impact of the lead test assembly
2	program which will impact the Charlotte area as part
3	of the preparation for the use of MOX. These impacts
4	include not only the dangers of putting experimental
5	fuel into a nuclear reactor core, but also the
б	transport of the plutonium and fresh MOX fuel.
7	Third, there is not yet an environmental
8	impact statement on the new plutonium pit factory in
9	South Carolina that seems to be part of the whole
10	deal. Such a report may not be an assigned duty of
11	the NRC, but it is a study that is necessary for a
12	complete assessment of risk of this ever-expanding
13	plan.
14	Fourth, although we were glad to see that
15	the required environmental justice policy is being
16	implemented, we do not believe the mitigation measures
17	suggested are sufficient to achieve environmental
18	justice for the low income populations in the area
19	surrounding the SRS. At least these three additional
20	efforts should be made.
21	First, we believe there need to be warning
22	sirens in the area of the facility; second, there
23	should be free health care for those with health risks
24	elevated due to the operation of the facility; three,

25 some economic benefit should be provided for those who

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reside near the MOX facility to offset the economic and health disadvantages of living in the area. However, we want to be clear that these efforts do not justify exposing any population to the hazards of MOX production.

Fifth, there is no mention of possible 6 7 security problems at the facilities manufacturing and There's now an undeniably higher risk 8 handling MOX. of domestic terrorism than ever before, and these 9 facilities would be prime terrorist targets. 10 And I 11 know a lot of other people who articulated this very 12 well tonight, but I just thought it was worth mentioning because I think it -- it is a serious 13 14 issue.

15 Sixth, someone, whether it is DOE or the 16 NRC, needs to do an environmental impact study of 17 waste management in the manufacture and use of MOX. 18 This is a particularly glaring omission of relevant 19 facts.

Although the Charlotte Area Green Party appreciates the time and effort of the NRC in hosting these hearings, it is our fear that the NRC is just going through the motions of pretending to listen to public comments, when the decision to build and use the facilities is already being taken for granted by

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1	the companies involved. Why, for example, has Duke
2	Energy already stated its commitment to the use of MOX
3	fuel? It appears they do not intend to pay attention
4	to the concerns of the public.
5	In closing, we would like to urge the NRC
6	not to approve the construction of the MOX factory at
7	the Savannah River nuclear site. The NRC's draft
8	environmental impact statement has failed to convince
9	us that this enterprise involves an acceptable level
10	of risk either to humans or to the natural
11	environment.
12	Thank you.
13	MR. CAMERON: Thank you, Doctor, for those
14	specific recommendations, too. We appreciated that.
15	That's the last speaker that we we
16	have. And I want to go out to you again to see if
17	there's any last questions. But I thought that I'd
18	ask Lawrence Kokajko if there's anything that he heard
19	that he might want to clarify for us.
20	MR. KOKAJKO: Thank you very much. I
21	appreciate you all coming out. We did hear some new
22	comments this evening that we have not heard in the
23	previous two meetings, and we do appreciate them. And
24	we also hear some of the same concerns, too, that
25	we've heard at both of the previous meetings, as well.

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1 Т'd like to provide -- to а few 2 clarifications. One is the -- to use the MOX fuel in 3 the reactors does require license amendment. And that 4 is handled by the Office of Nuclear Reactor 5 Regulation. And as -- as you may know, for an amendment to the operating license there is some type 6 7 of environmental assessment done, as well as an 8 opportunity for hearing. I do not know the full status of that, but I know the licensee has to do a 9 review, and I know we have to do a review, and we have 10 11 The project manager for that, I to approve it. 12 believe his name is Robert Martin. And if you would like to contact him to get the details on that 13 14 amendment... 15 UNIDENTIFIED: I speak with him regularly. MR. KOKAJKO: Okay. I -- I do not, so --16 17 but I do know that those things are done in the normal Part 50 process. 18 19 Also, you mentioned about EPA and NRC, about the child doses. There is a -- in the federal 20 21 government, a -- something called ISCORS, Interagency 22 Steering Committee on Radiation Safety. That is being 23 -- that is one of the topics that they do discuss, and 24 the NRC and the EPA are working together to come up 25 with something in that regard. I do not know the

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1	details of that, but I do know that that committee
2	does exist and those things are occurring.
3	MS. OLSON: NRC's participating in that?
4	MR. KOKAJKO: In ISCORS; yes, ma'am.
5	MS. OLSON: Well, I know in ISCORS, but is
6	it
7	MR. CAMERON: Let's let's make sure we
8	get this on the record. I apologize for the
9	awkwardness of not being able to just have a simple
10	conversation, but we do need to get it on the record.
11	MS. OLSON: I appreciate that you're
12	telling people about ISCORS. I am aware of ISCORS.
13	But I was not aware that NRC was participating in a
14	consideration of a new way to set standards that would
15	consider children in a different way than the standard
16	man. So this is news to me. And let me understand
17	that you are saying that NRC is proactively seeking to
18	participate in this?
19	MR. KOKAJKO: The what I can tell you
20	is that we are aware of it and we're following the
21	work. I cannot tell you that we have we have made
22	a reached an agreement with the EPA or anyone else
23	as far as what the outcome will be. But I do know
24	that that work is is ongoing. That's that's
25	what I'm trying to tell you.

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1 One of the things that also was brought up 2 about Cogema, in particular. But the Duke Cogema 3 Stone & Webster consortium would be under our 4 oversight. If Cogema, to the extent that their 5 involvement in this activity, once it is licensed, they would be within our regulatory reach. 6 So Cogema 7 does not exist as this French entity that is beyond our control. Because they've submitted themselves in 8 9 this consortium, and if this activity does qet licensed, that company, DCS, would be within our 10 11 regulatory reach. 12 And the final thing I want to say is that there has been no approval, tentative or otherwise, 13 that has been made regarding the construction or operation of this facility. DCS can take no action as

14 15 a result of the draft environmental impact statement 16 or even the final environmental impact statement. 17 That decision is based upon -- both the decision to --18 19 to construct and operate the facility can only be made 20 after the safety evaluation is complete, the safety 21 evaluation reports are prepared, and any conclusion of 22 any adjudication, as a result of a hearing request, 23 has been made. So there has been no decision reached 24 anywhere in this process yet.

What we're saying in today (sic) is that

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1 there is a -- for the environmental review, the 2 tentative conclusion is that we feel we understand the 3 environmental impacts, and we feel we understand it 4 enough that we wanted to come out and solicit public 5 comments. That's why it's a draft. That's why the Congress, in its wisdom, said you will have two 6 7 processes here. You're going to go out with a draft 8 first and get -- seek other comments, and then you 9 come out with a final. And that's why we're here this evening. So I'd like to make sure that we understand 10 11 no decision has been reached on the -- the proposed 12 MOX facility. Okay, thank you. 13 MR. CAMERON: 14 Is there anybody who has not had a chance 15 to ask a question or anything, that you've been listening to a lot of us who's -- anybody else who 16 17 wants to ask a question or say anything? Let me see if there's anybody else first, 18 19 and then we'll go over there. Anybody? All right. 20 MR. KEISLER: This is Bill Keisler again, 21 in regards to environmental justice. This included 22 this environmental impact statement, but there was a paper given or a speech given I believe in Australia 23 24 July 2000 by one of the commissioners, stated that the 25 -- being an independent agency, the NRC was not bound

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1	by executive order for the application of
2	environmental justice standards.
3	MR. HARRIS: I was at that meeting with
4	Commissioner Dicus, and I don't believe she made that
5	statement. I think the point
6	MR. KEISLER: Well, it was on the Web site
7	(indiscernible).
8	MR. HARRIS:I think the point she was
9	trying to make was that environmental justice could be
10	viewed in a broader sense.
11	MR. KEISLER: She stated that it did not
12	that they the NRC tried to accommodate it where
13	they could, but was not bound by that executive order.
14	MR. CAMERON: Maybe I could
15	MR. KOKAJKO: Let me let me
16	MR. CAMERON: Go ahead, Lawrence, you
17	you can clarify this.
18	MR. KOKAJKO: Okay, yeah, I I think I
19	know the answer to this.
20	There is we're under a federal system
21	of government. Once again, the Congress, in its
22	wisdom, when it set up the Commission, it we are
23	exist as an independent executive agency. And we do
24	not follow under the executive branch, as say the

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where they have to follow the presidential orders.

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What we do is, we evaluate them to see what may be applied to us, and then, you know, we may take it, we may not. The Securities and Exchange Commission also does the same thing. That they, as an independent agency, they can try to be independent of the executive branch as necessary.

The interesting thing is the NRC has said 8 we would take the executive order on environmental 9 justice and we would apply it. And we have, in fact, 10 11 done so. Environmental justice is a very big concern. 12 We are -- in fact, I know that our environmental review group, of which Tim and Adrienne and Stacy are 13 14 involved in, take environmental justice very 15 And, in fact, I would seriously. say that environmental justice has been one of the -- the 16 17 stronger comments and themes throughout each of these meetings, particularly the first two meetings that we 18 19 had on the draft environmental impact statement.

20 So the answer is we are following the 21 environmental justice. I believe we did write -- we 22 did write back to the executive branch and we said we 23 would follow it to the degree that it applied to our 24 environmental impact statements.

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MR. CAMERON: And -- and, in fact, the NRC

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1	has internal procedures that
2	MR. KOKAJKO: Procedures to do that.
3	MR. CAMERON:that dictate that we will
4	we will follow the objectives and spirit of the
5	executive order. And, as Lawrence pointed out, there
6	there are many executive orders that come out where
7	the NRC has to decide, even though it might be not
8	bound legally by that executive order because, as
9	Lawrence very nicely explained, we're an independent
10	agency, we have to make a decision about whether we're
11	going to follow that particular executive order. And
12	in this case we we did.
13	And let me see if there's any final
14	questions before we we adjourn.
15	Mary?
16	MS. OLSON: This is Mary Olson, and I
17	think I'm on slow roll, because I want to just make
18	one little comment about what Lawrence said about
19	license amendments.
20	I clearly understand that a license
21	amendment involves an environmental assessment. But
22	what I wanted the NRC staff to hear is that you
23	wouldn't do an environmental impact statement if it
24	wasn't more detailed than an environmental assessment.
25	And so, in terms of disclosure of

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information, development of issues, and participation by the public, the difference between an EA and a FONSI, to use the verbiage of DC, which is an environmental assessment and a finding of no significant impact. And then a license amendment

challenged by intervention puts the full burden of development on the intervener.

8 And I just think that this program is it is experimental, it's never been done 9 unique, 10 before, it's a departure from all our previous 11 And to let it go forward with EAs and policies. 12 FONSIs on the reactor site, after we were promised again and again that the analysis would be done, and 13 14 now there's virtually no insurance at all that any 15 further analysis will be done without intervention, which is a very high bar for the public to meet. So 16 17 I'm really laying it out there tonight. You guys have least the option making 18 of the decision, at 19 proactively, that a full EIS will be done on MOX use. 20 MR. CAMERON: And that will be 21 communicated to the people in the Office of Nuclear 22 Reactor Regulation, too, Mary. 23 MS. OLSON: Thank you. 24 MR. CAMERON: Okay. 25 Lawrence, do you want to close us out as

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1	the senior official on this.
2	MR. KOKAJKO: Oh, thank you.
3	First of all, I'd like to thank everyone
4	for coming out this evening. I though I didn't
5	think I would say this, I have enjoyed each of these
6	three meetings. They've been a little bit tiring at
7	times, but I have enjoyed the interaction with people.
8	And I find that it it has been rewarding. And I'm
9	glad to see so many people that are interested in this
10	project come out.
11	Once again, I'd like to to thank
12	Adrienne Lester. These meetings would not have
13	happened if it wasn't for her. She does deserve a
14	a round of applause, by the way.
15	[Applause.]
16	MR. KOKAJKO: She did the lion's share of
17	work to help get this together, and I do appreciate
18	her.
19	I would like to offer one more chance for
20	questions or comments.
21	Yes? Please.
22	MS. ODOM: I can talk loud enough. I
23	don't normally talk loud.
24	MR. KOKAJKO: Well, come up here and talk
25	in here. We'll talk together.

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1	MS. ODOM: No, I just
2	MR. CAMERON: Well, let's let's let
3	me make take this out; okay?
4	MR. KOKAJKO: Okay.
5	MR. CAMERON: And we'll have Linda just
6	talk right in into it; okay?
7	MS. ODOM: Okay, to Mary's question. I
8	understand that the NRC is involved with the
9	environmental dose reconstruction project report that
10	is being revised the year 2003. And I was just
11	wondering if you knew about it. It's supposed to
12	calculate the ingestion of chemicals that are being
13	released or could possibly be released into our
14	environment due to the MOX project. And if you know
15	about it, where can I get it?
16	MR. KOKAJKO: I don't I just looked at
17	Tim, and he he shook his head. He's not aware of
18	anything and
19	MS. ODOM: Have you heard about it? Do
20	you know what I'm talking about? The environmental
21	dose reconstruction project. That's DOE?
22	MR. CAMERON: Yeah, it's DOE, and I think
23	that that's (indiscernible).
24	MS. Odom: I know SRS (indiscernible).
25	Can I give you the name of somebody who's on that

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1	committee?
2	MR. KOKAJKO: If that's DOE, I that,
3	I'm not aware of, so
4	MR. CAMERON: Okay.
5	MR. KOKAJKO: So, with that in mind
6	MR. CAMERON: Thank you.
7	MR. KOKAJKO: Thank you. This meeting's
8	adjourned.
9	(Whereupon, the hearing was concluded at
10	10:00 p.m.)
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