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NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING ON PROPOSED MOX FACILITY

DRAFT ENVIRONMENTAL IMPACT STATEMENT

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WEDNESDAY,

MARCH 26, 2003

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AUGUSTA, SOUTH CAROLINA

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The Public Meeting was held in the North Augusta Community Center, 495 Brookside Avenue North Augusta, South Carolina, at 7:05 p.m., Francis "Chip" Cameron, Facilitator, presiding.

PRESENT:

FRANCIS (Chip) CAMERON

LAWRENCE KOKAJKO

TIM HARRIS

I-N-D-E-X

I-N-D-E-X

P-R-O-C-E-E-D-I-N-G-S

MR CAMERON: Good evening everyone. My name is Chip Cameron. I'm the Special Counsel for Public Liaison at the Nuclear Regulatory Commission. I just wanted to welcome all of you to the Nuclear Regulatory Commission, the NRC's public meeting tonight. And I have to say it's nice to be -- nice for all of us at the NRC to be with all of you in North Augusta. We've had several good meetings here in the past, and we look forward to having a good meeting tonight.

Our subject is the NRC's draft environmental impact statement that the NRC has prepared to help its -- help it make its decision on the evaluation of the application for the construction of the mixed oxide fuel facility. That application is from the consortium of Duke, Cogema, Stone & Webster. And you may be hearing that referred to tonight by its acronym, DCS. We'll try to keep the acronyms down, and explain what they are if we -- we use them. But that's -- that's one you might hear tonight.

And I'm going to help out by serving as the facilitator for tonight's meeting, to try to help all of you have a -- a productive meeting tonight. And I just wanted to go over a few things about the

meeting process before we get into -- to our discussions. One is the purpose, why the NRC is here tonight. We're here, first of all, to clearly explain what the NRC's process is for evaluating this application that we received, and to specifically talk about the findings that are in the draft environmental impact statement that's been prepared.

And most importantly, we want to hear from you, any concerns you have, any recommendations you have about the draft environmental impact statement, the NRC process for evaluating this application. And the ultimate goal is to use the comments that we hear tonight, the written comments that we receive, and comments from some of the other meetings that we're doing, that's going to help us to -- to make our decision on the application and to prepare the final environmental impact statement.

And what you hear tonight from -- from the NRC and from -- from other people in the community may help you to prepare your written comments, if you want to -- to submit any written comments to us. But let me just emphasize that whatever is said tonight, those comments will carry the same weight as written comments. And we are taking a transcript tonight. Melanie is our stenographer. And we will have a

written record of what is said tonight. And that will also be available to anyone in the public who wants to see that transcript.

In terms of the format for the meeting, we're going to try to keep it real simple. We have a couple of brief -- two brief NRC presentations to give you some background information, and then we're going to go out for a question-answer period with you, make sure that -- that everybody understands what we're doing. And then we're going to go to you for a -- a comment session. And I don't want to say formal comment, although it is in a sense. We want to try to be as informal as possible tonight and -- and just have some good discussions. But when we get to the comment portion of the meeting, you can either come up to this podium and make your comment, or I'll bring you this -- this talking stick, this cordless mic, and you can -- you can use this to make your comments.

And sometimes it's -- we all know it's -- it's difficult to perhaps separate a question from a comment, or a question might lead into a comment. And so, when we're into question-answer period, it's fine if you sort of segue into a comment, but we really do want to save that question-answer period for -- for informational questions for the -- for the NRC.

And in terms of ground rules, when we're in the question-answer period, if you have a question just signal me and I'll -- I'll bring you the microphone. And please tell us your name and affiliation, if appropriate, so that we'll have that on the transcript. And I would just ask you to try to be concise as possible. I know that's difficult because this is a complex issue. But if you try to do that, then we can make sure that everybody who's here tonight who wants to talk can have an opportunity to speak.

And when we get to the formal comments, we do have a lot of people signed up to talk tonight. So I'd like to keep the individual comments at five minutes; so that if you could try to keep it to five minutes, everybody will benefit from that. And I'll remind you when you're -- when you're getting there, although most people don't take that -- that five minutes. And I would just ask that only one person speak at a time, for obvious reasons, so that we can get a clean transcript, and also so that we can give our full attention to whomever has the floor at that time.

In terms of agenda, we're first going to go to Lawrence Kokajko, who is right here. And

Lawrence is the acting Branch Chief of the Environmental and Performance Assessment Branch at the NRC. It's in our Office of Nuclear Materials, Safety, and Safeguards. And Lawrence's staff had a responsibility for doing the evaluation, the environmental evaluation on this DCS application to construct this facility, and also for doing environmental evaluations on other -- other facilities. And Lawrence has been with the Agency for about 14 years. And before he became the acting Branch Chief, he was chief of a -- a Special Risk Task Group that the Agency had formed to take a look at how to make our processes more -- more risk-informed. And he's been involved in reactors and spent fuel activities at the NRC, also. And Lawrence is just going to give you an overview of what the NRC is, how this environmental evaluation fits into our responsibilities.

And then we're going to go to Mr. Tim Harris, who's right here. And Tim is going to tell us about the findings in the draft environmental impact statement, what the schedule is for completing the environmental impact statement, how you submit comments, important information. And he's the Project Manager on the environmental review on this

application. And he's been with the -- the Agency for about nine years now, and has a civil engineering degree from the University of Maryland. And he's one of Lawrence's staff.

And I should -- before I stop, just to make sure everybody knows, we have Dave Brown here with us. And Dave is the Assistant Project Manager on the safety evaluation on the DCS application. And introducing him allows me to make an important point. The NRC's decision on this application has two major components to it. One is the environmental evaluation that we're here to talk about tonight; and the other is the safety evaluation of the proposed facility. And both of those come together to help the NRC make a decision. So we do have Dave here tonight in case there are questions on any of the safety issues, and perhaps we can explain the difference between those a little bit more in -- in the discussion.

And with that, I just would thank you for -- for being here tonight. And we're going to go to Lawrence Kokajko.

Lawrence?

MR. KOKAJKO: Thank you, Chip.

Can everyone hear me? Can everyone hear me? Let's try the cordless. Does it work now? No?

Okay. It's working; right?

MR. CAMERON: It's working. I think it just isn't quite level.

MR. KOKAJKO: How about now? Excellent.

Good evening. My name is Lawrence Kokajko, and as Chip said, I am the acting Branch Chief for the Environmental and Performance Assessment Branch at the Division of Waste Management in the Office of Nuclear Materials, Safety, and Safeguards at the Nuclear Regulatory Commission. And I'd like to welcome you to this meeting on the NRC's draft environmental impact statement for the proposed mixed oxide or MOX fuel fabrication facility.

I'd like to thank you for taking your time out of your busy schedule to be here this evening. And we do appreciate it. And we do value your input. And we look forward to hearing from you this evening.

This meeting is one of a series of meetings planned to inform the public about the environmental impact statement, or the EIS, for the proposed MOX project, and to solicit public comments. Last night we met in Savannah, and tomorrow night we meet in Charlotte.

There are three handouts that you should have received on the way in. You should have received

a set of slides; an agenda, facts sheet, and comparison of alternatives; and then feedback forms. We would appreciate hearing you responding to the questions on the feedback forms, and either handing it back to an NRC staff person, or you can staple the form together and drop it in the mail. If the NRC people could raise their hand one more time so you could give it to one of us. I think John Hull there, as well. You can drop it in the mail, as well. The form is self -- is addressed, and postage has already been paid.

If you would like a copy of the draft environmental impact statement, we have a limited number here. And if we run out, we will mail you a copy. Next slide. Next slide.

As Chip mentioned, the presenters tonight will be myself, as well as Mr. Tim Harris of my staff. We've included our phone numbers and Email addresses. And please feel to contact us (sic) if you have any questions after this meeting. And we will be hanging around a little bit in case you have some other comments you'd like to talk to us about.

The purpose of tonight's meeting is to get your comments on the draft environmental impact statement. Before we hear your comments, we'll

provide some information on the NRC's role on the proposed MOX project, and describe the *National Environmental Policy Act* and the EIS process, and how the EIS fits into the NRC's decision-making process. Tim will give an overview of the draft environmental impact statement, and then there will be time to answer questions. Next.

The proposed MOX facility would take surplus weapons plutonium and depleted uranium and make nuclear reactor fuel. Congress, in the *Defense Authorization Act of 1999*, gave NRC a role in the proposed MOX project. Specifically, NRC has licensing authority over the MOX facility, so our role is to make a licensing decision regarding the safe operation of that facility.

The NRC is an independent government agency, and our mission is to protect the public health and safety, and the environment, in the commercial uses of radioactive material. Our role is different from the Department of Energy's. The Department of Energy's role in this project relates to implementing the United States nuclear non-proliferation policy, including the disposition of surplus weapons plutonium.

The Department of Energy also has a

responsibility to design, build, and operate two facilities that support the proposed MOX facility. These two facilities are the pit disassembly and conversion facility, or the PDCF, and the waste solidification building, or the WSB. While the pit disassembly and conversion facility and the waste solidification building are considered in the NRC's environmental review, it is important to note that the NRC does not have licensing authority over these support facilities. That responsibility rests with the Department of Energy. The NRC only has authority over the proposed MOX project.

I'd like to briefly describe the EIS process. The *National Environmental Policy Act* requires government agencies to prepare an environmental impact statement for major federal actions such as the potential licensing for the proposed MOX project. An environmental impact statement presents an environmental impacts (sic) of a proposed action, along with reasonable alternatives to that proposed action. Note that the bolded areas are opportunities for public involvement in the process, and we consider this a very important part of the EIS process.

The NRC's involvement in the MOX project

started when Duke Cogema Stone & Webster, the applicant, submitted an environmental report and requested to construct the MOX facility. We published a notice of intent to prepare an environmental impact statement in the *Federal Register* in March of 2001. During the scoping process, the public helped determine what issues would be addressed in the environmental impact statement. We have now completed the draft environmental impact statement in February of this year, and we sent copies to approximately 550 people in that month.

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. The last slide will show ways you can comment additional -- submit comments additionally. We will review and consider the public comments and finalize the EIS later this year. Next slide.

As I mentioned earlier, NRC's role is to make a licensing decision regarding the proposed MOX facility. I'd like to take a few minutes to describe the licensing process, and how the environmental impact statement we're discussing tonight fits into NRC's decision-making process. There are two

decisions that the NRC will make for the proposed facility. The first is whether to authorize construction of the facility, and the second is whether to authorize operation of the facility. These decisions are shown in the middle of the slide. The NRC's environmental review is shown at the top portion of the slide, and consists of preparing the final environmental impact statement. The final environmental impact statement will be used by NRC to decide whether to authorize construction, and later whether to issue a license to operate the MOX facility.

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

Duke Cogema Stone & Webster plans to submit a license application to operate the proposed facility in October of 2003. The safety evaluation

report on the operating application and the FEIS will be the basis for making a decision on whether to allow them to operate the proposed MOX facility. There will also be two opportunities for hearings. John Hull, with our Office of General Counsel, is here, and he can answer questions related to the hearing process. To summarize, a single environmental impact statement will be used to support a decision to construct and later operate the proposed mixed oxide fuel fabrication facility.

Now I would like to turn this over -- presentation over to Mr. Tim Harris, of my staff. Mr. Harris is the Project Manager and the Lead for the Environmental Review for the MOX project at the NRC. Tim?

MR. CAMERON: And if I could just interject one thing. Tim has a lot of material for you, and he's boiled it down to a minimum. And you're going to have a lot of questions, I know, as he goes through that. But what we'd like to do is to let him get through his presentation, and if you could just note your questions on the view graphs, then we'll -- we'll go back out to you and get those -- those questions.

MR. HARRIS: Thank you, Chip.

Can everybody hear me?

What I'd like to do is discuss the alternatives that we considered in detail in the environmental impact statement; and also those alternatives that we considered, but did not analyze in detail. Then I'll provide a summary of the impacts in they DEIS.

To understand better how we decided which alternatives to consider in detail, and those that we did not, that relates to the purpose and need of the environmental impact statement. As we stated in our notice of intent that Lawrence mentioned, the purpose and need of the MOX facility that's presented in this draft environmental impact statement is essentially the same as used by the Department of Energy in its programmatic EIS's for the surplus plutonium disposition program. Those are: The purpose and needs relate to agreements between Russia and the United States to reduce the threat of nuclear weapons by insuring that those materials are converted into a proliferation-resistant form. It also relates to reducing the risk of plutonium falling into the hands of terrorists or rogue states.

The draft environmental impact statement evaluates two alternatives in detail. These are the

no-action alternative and the proposed action. And I'll describe those. The no-action alternative would be continued storage of this surplus plutonium at existing DOE sites. The no-action alternative is used as a baseline to compare alternatives in an environmental impact statement.

The proposed action includes impacts from constructing, operating, and later decommissioning the proposed MOX facility. It also includes impacts associated with other connected actions, such as transporting radioactive materials. As Lawrence mentioned, DEIS also includes impacts associated with the two DOE support facilities that he mentioned, the pit disassembly and conversion facility, and the waste solidification building. DEIS also includes impacts associated with the potential use of MOX fuel. For the proposed action, we also evaluated differences in using a sand filter, which was a topic I think was raised here during scoping, with using a HEPA filter system that was proposed by DCS.

As I said before, the purpose and need determined which alternatives we analyzed in detail, and those that we considered, in discussing the environmental impact statement, but did not analyze in detail. In addition to siting and technology options

evaluated by DCS in its environmental report, several alternatives were raised during scoping, and also at our meetings here last fall.

Immobilization was initially considered as a reasonable alternative. However, following the Department of Energy's amended record of decision for the surplus plutonium disposition program, DOE believed that an immobilization-only approach would not meet the U.S.-Russia agreements. Therefore, it did not meet the purpose and need, and that alternative was not analyzed in detail in the EIS.

Another alternative that was raised at the Charlotte meeting that we had last fall was deliberately making off-specification MOX fuel. And I'll describe what that is. Essentially, the surplus plutonium has impurities in it that, in order to use it in a reactor, need to be removed. This off-specification MOX fuel alternative consists of not removing those impurities. It would also include not burning the fuel or using the fuel in a reactor. Instead, you'd make the MOX fuel off-specification, which had the impurities, and then you would store it at spent fuel pools at existing reactor sites prior to disposal in a geologic repository. Again, we felt that this alternative did not insure that it was going

to be proliferation-resistant, and did not meet the purpose and need.

The proposed action and no-action alternative impacts were evaluated for the following comprehensive list of technical areas. The technical areas on the right are considered to be less significant, and those are discussed in appendices. The technical areas on the left are discussed in the body of the report, and these are because these are issues that we felt had more significant impacts or were raised during scoping, and these were issues that were more important to the public. So we provided detailed discussion in the body of the report.

To allow more time for public comment, I'm only going to focus on the impacts on the left. These are human health risk, air quality, hydrology, waste management, and environmental justice. In addition, I'll summarize the impacts associated with transporting radioactive materials related to this project, and also the potential use of MOX fuel. And I'll also provide a summary of the cost benefit analyses.

First, I'd like to summarize the impacts associated with the no-action alternative. The impacts of this alternative were previously evaluated

by the Department of Energy. And the impacts that are presented in their draft environmental impact statement are essentially the same as those in -- in their previous -- DOE's previous environmental impact statements.

We've included in the packet of information that Lawrence mentioned comparison tables, so that if you want to look at numerical differences for any particular resource area, what was the person rem for the no-action alternative compared to the proposed action, you have the numbers in your hands. When I talk about them tonight, I'm just going to summarize them relative to current SRS conditions.

The impacts associated with the no-action alternative to the public and workers are considered to be low, and there would be no significant air quality or water quality impacts associated with this alternative. As you can imagine, storing material in a building doesn't generate a lot of water concerns or air concerns. There was also no significant waste management concerns or environmental justice concerns.

Now I'd like to walk through the technical areas for the proposed action. And again, the proposed action includes the impacts associated with three facilities: the proposed MOX facility; the pit

disassembly and conversion facility; and the waste solidification building. There would be no adverse chemical or radiological impacts during construction from operating the three facilities. The annual public collective dose would increase by about 11% above what is currently received at the Savannah River Site. And the following slide will help put that in perspective. While 11% seems like it may be of concern, the numbers are actually quite small. Next slide, Dave.

This slide shows radiation doses from several sources, and also NRC's annual public dose limit. The average annual dose from natural radiation -- natural background includes radiation from the earth, and also from space, and is about 360 millirem. And a millirem is just a measure of radiation dose. The annual public dose limit -- NRC's annual public dose limit is 100 millirem. You would receive about six millirem if you had a chest X-ray. The annual dose to the public from normal operations of the proposed MOX facility, PDCF, and waste solidification building is less than one millirem.

Accidents have the greatest potential consequences of the impacts that we evaluated in the draft environmental impact statement. Two

conservative scenarios were evaluated for a number of potential accidents. These scenarios are the short-term scenario, which assumed that people were exposed by inhaling contaminated material from a plume that would be generated following an accident. We also evaluated a long-term scenario, which includes the impacts of the short-term scenario, as well as impacts associated with eating crops that could become contaminated.

Potential accident impacts are evaluated in terms of risk. The classical definition of "risk" is the probability of an event times the consequences of the event equals the risk. In keeping with NRC's mission to protect public health and safety, we want to insure that the overall risk to the public is very small. Therefore, events that result in significant impacts are required to be made highly unlikely through the use of design safety features. And these design safety features are currently being evaluated as part of the safety evaluation process that Lawrence talked about.

In March we notified a number of stakeholders that we had identified an error in the accident consequences due to a computer code bug. We felt that it was important to inform stakeholders in

a timely manner. And, in fact, I think I found out about the -- the error on a Monday after, and by Thursday afternoon we'd issued a letter to about 500 people. So we felt it was very important to provide the public with accurate information.

During our subsequent review, we found an additional error in wind data that was provided by Duke Cogema Stone & Webster. This error essentially doubles the impacts associated with normal operations and potential accidents. These errors, however, do not change NRC's conclusion or preliminary recommendations. The numbers presented on the slide and the numbers in the comparison table which you have, have been updated. We also plan to issue errata sheets to people that were mailed copies of the EIS. By you attending this meeting, you'll get a copy of the errata sheets, and also we'll post those on the web.

Hypothetical events that caused the highest consequences were an explosion event at the proposed MOX facility. This hypothetical accident would be estimated to result in less than 50 latent cancer fatalities for the short-term exposure, and less than 200 latent cancer fatalities for the one-year exposure scenario. The other event was a tritium

fire at the pit disassembly and conversion facility. This event was estimated to result in less than one latent cancer fatality in the short-term, and less than 100 latent cancer fatalities for the one-year exposure scenario. These estimates are conservatively derived, and do not include credit for intervention actions that would be taken to reduce long-term exposure resulting from eating contaminated crops. We didn't -- these numbers assumed that those events wouldn't happen. So -- so we think that these are bounding numbers.

The probability of these hypothetical events occurring is considered to be highly unlikely, as I mentioned before. Part of the safety review is to make sure that the safety processes and features are into the plant to make sure that the accidents are highly unlikely. These consequences of these highly unlikely events are significant. However, we believe that the overall risk to public health and safety is very small.

Air quality relates to compliance with the *National Ambient Air Quality Standards for Emission of Chemical Pollutants*. Air quality at the Savannah River Site already exceeds the particulate matter 2.5 micron or PM 2.5 standard. The proposed action would

result in a 0.1% increase during construction, mainly due from earth-moving activities; and a 0.01 increase during operations. However, the Environmental Protection Agency has delayed implementation of this standard. If and when attainment plans are developed by states such as Georgia and South Carolina, the Savannah River Site could be required to reduce PM 2.5 emissions, and this could have some future impact to the MOX facility.

Next I'd like to talk about surface water. Surface water would not be significantly affected during construction through the use of sedimentation control measures. And there would be no direct operational discharges to surface water. Waste from the proposed MOX facility would be managed by the Savannah River Site. Discharges from existing Savannah River Site waste management facilities are not anticipated to change significantly as a result of processing this waste.

Groundwater would be used during construction and operation. Approximately 37% more groundwater would be used in the "F" area in the proposed action. Their existing groundwater wells and existing capacity is present to allow this water to be used, and we don't believe that the use of this water

will create a significant impact on the aquifer or water quality.

There would be no significant impacts on the Savannah River Site waste management capability from processing the proposed waste of the proposed action. Operation of three facilities would generate about 300% more transuranic waste than is currently being generated at the Savannah River Site. This transuranic waste is planned to go to the waste isolation pilot plant in New Mexico for disposal, and the volume of the TRU waste that would be generated would be about 3% of the waste isolation pilot plant disposal capacity. Operation of the three facilities would increase low level waste by about 32%, and non-hazardous waste by about 60%. But again, the current Savannah River Site waste management system can accommodate these waste volumes.

An executive order issued by President Clinton directed federal agencies to address any disproportionally high or adverse human health or environmental effects on low income and minority populations. This is commonly referred to as environmental justice. The impacts from construction and operation of these facilities are not high or adverse. Therefore, there would be no environmental

justice concern associated with construction or operation. However, due to the prevailing wind directions, there is a potential impact on low income and minority populations from these highly unlikely events.

The risk associated with these accidents is considered to be small to all populations. However, the NRC felt it was important to include mitigation measures to reduce these potential impacts to low income and minority populations.

Transportation of materials was identified during scoping as an important concern to many stakeholders. The transportation analysis includes the shipment of surplus plutonium from various DOE sites to the Savannah River Site, and also depleted uranium from an existing enrichment facility to a conversion facility where it would be converted to a powder form, and then to the Savannah River Site.

We also provided an analysis of shipping fresh MOX fuel from the Savannah River Site to a generic Midwest reactor. The impacts associated with this transportation would be less than one latent cancer fatality from routine transport to the public along transportation routes, and also to transportation crews. Hypothetical accidents result

in insignificant impacts.

The potential impacts associated with using MOX fuel are discussed in the environmental impact statement on a generic basis. The collective dose to members of the public from normal operations would be essentially the same, whether a reactor used low enriched uranium fuel, or a mixture of the MOX fuel and low enriched uranium fuel.

We also looked at various design-based accidents, and found that the risk associated with developing a latent cancer fatality between low enriched uranium fuel and a mixture of MOX fuel varied from about 6% lower to 3% greater. We also looked at beyond design-basis accidents. The risk there would vary from about 7% lower to about 14% greater.

We have recently received an application from Duke Energy to place lead test assemblies in either the Catawba or McGuire reactor. We will do additional site-specific evaluations before these lead test assemblies are placed in those reactors, and before MOX fuel would be placed in any reactor. That is, the NRC would determine whether it's safe to do that before it's allowed to happen.

The draft environmental impact statement includes a cost benefit analysis on both a national

scale and a regional scale. The cost benefit analysis is used by the NRC to determine its preliminary recommendation. On a national scale, the project would cost about $3.85 billion. The national benefits would include safe use of excess weapons plutonium, and also employment and income.

On a regional scale, which includes 15 counties surrounding the Savannah River Site, which would be of interest to you all, the proportion national cost within that region would be about $8 million. The regional environmental costs are considered, and the impacts presented in the draft environmental impact statement conclude that the impacts are not significant. The regional benefits would include $350 million of income during construction, and about $640 million during operation.

In conclusion, the impacts of the proposed action are generally not significant. Accident impacts from the pit disassembly and conversion facility and the MOX facility are significant. However, the probability of such an accident is considered to be highly unlikely. Therefore, the overall risk to the public is considered to be very small. There is a potential environmental justice concern should an accident occur. And, again, NRC has

proposed mitigation measures to reduce those potential impacts.

Staff's preliminary recommendation is the proposed action with appropriate mitigation measures to reduce potential impacts in all areas. Before making any decision, NRC will consider comments here tonight, and decide whether changes need to be made in the environmental report -- I'm sorry, environmental impact statement, and then we'll finalize the environmental impact statement, as Lawrence mentioned. He also mentioned that we're doing a safety evaluation report, and that -- those findings would be completed before NRC makes any decision whether or not to authorize Duke Cogema Stone & Webster to construct the MOX facility.

When DCS submits an operating license application, NRC will review that application, and prepare a second safety evaluation report. NRC will only grant authority to operate the MOX facility if it can be shown to be safe.

The next slide shows ways that you can submit comments. You can either submit them in writing, you can Email them to me. There's also a place on the Web where you can type in comments, or you can fax them to me. Comments are due by May 14th.

And I would ask that when you provide your comments, if you can provide detail that helps us in determining how to -- how to address your comment. You know, a comment that says, "I'm for the proposed MOX facility," "I'm against the MOX facility," are nice. But if you say, "I'm against the MOX facility because I don't like XYZ," that's a much -- much more useful comment to us. Or if you say, "I'm for the proposed MOX facility because it would create jobs in the area."

But that concludes my remarks, Chip, if you...

MR. CAMERON: Oh, great.

MR. HARRIS: Be happy to answer questions.

MR. CAMERON: Great. And thank all of you for your patience. That was a lot of material. And let's go out to people for -- for questions now.

Yes, sir? And if you could just give us your name, please.

MR. MARESKA: Bill Mareska, Augusta, Georgia. To Tim or Lawrence, is the DOE or the NRC prepared to terminate any further action and abandon creating the MOX facility if the Russian and American political agreement on MOX construction falls through? This was the principal reason for choosing MOX over

immobilization. And if those agreements fail, is the NRC or the DOE prepared to terminate the MOX facility construction and revisit immobilization?

Thanks.

MR. HARRIS: That's a good question which maybe will help identify the differences in roles between the Department of Energy and the Nuclear Regulatory Commission.

The Department of Energy, as Lawrence mentioned, has the overall mission to -- for the surplus weapons plutonium. And they talk to Russia and are involved in the agreements. So if something happens between Russia and the U.S. relative to the agreements, those decisions would be made by DOE. NRC is only involved in determining whether or not the proposed MOX facility can be built and operated safely.

MR. CAMERON: And I think that -- that answers...

MR. HARRIS: Does that answer your question?

MR. CAMERON: And if there -- I imagine if there was some type of a change that caused the Department of Energy to reevaluate, then they might withdraw the application or something like that.

MR. HARRIS: Right. But those -- those decisions would be made by others.

MR. CAMERON: Okay. Yes, let's go back here.

Yes, ma'am. And please give us your name.

MS. ROCHE: My name is Peggy Roche. I'm with Carolina Peace Resource Center. And I had several questions.

One thing, I think the man's question needs to be addressed by somebody, because it's my understanding that the Russians have halted their MOX facility plans at the moment, so that we are currently in violation of that agreement.

Now, another thing is that you mentioned terrorist attacks. What better "come and get me" is there than having 100% of the plutonium in the United States in one single place, instead of spread out throughout the United States? In one single place. And the reason it's not spread out is because every place that you've gone to start a plant, public outcry has kept a license from being issued in the Northeast, the Southwest, the Northwest, the West, and now you're here in the Southeast.

My other comment is you said that the workers at the facility would not be -- their health

would not be adversely affected. I direct you to Section 5, Page 11 of your DEIS that admits workers who are building the site could have their health adversely affected by, quote, "Exposure to soil or groundwater previously contaminated by radioactivity or chemicals."

Are you admitting the Savannah River Site is currently unsafe before you start stirring up dirt with construction? Could I have an answer to any of my questions, please?

MR. CAMERON: Let -- let's start with the -- the last question about the draft environmental impact statement and worker health. Tim, did you -- did you understand the...

MR. HARRIS: Yeah, I did.

MR. CAMERON: ...trail to that?

MR. HARRIS: Can you still hear me?

The -- the answer is, is that there -- there was a potential concern that since soil that's currently at the MOX site was moved, that there could be some residual contamination. We don't think that's likely. The applicant has done some testing. But we felt that it was important, to insure worker safety, that we had measures in there for testing during construction to make sure that that didn't happen.

And I think the answer to your question of whether or not we think it's unsafe now is: No, we don't think it's unsafe.

MS. ROCHE: (Inaudible)

MR. CAMERON: We need to get you on the -- the microphone; okay? So we'll go back to you right now to see if you have a follow-up.

MR. HARRIS: Chip?

MR. CAMERON: Yeah, go ahead, Tim.

MR. HARRIS: Did we want to have the Department of Energy address...

MR. CAMERON: Let's work -- let's work through these questions. There were three issues that were raised. And one was the one that you answered. And did you have a follow-up on that one?

Before we go to -- I'm going to ask Lawrence Kokajko to tell us a little bit, because we know it is a concern to all of us. Where are potential terrorist issues? Where -- where are those issues considered in the NRC's evaluation of the application, and what is the Commission doing generally in terms of the events after September 11th?

Well, fine. Peggy, when you -- is it Peggy?

Peggy, when you get up, and I know you're

going to make a comment, we want to hear about anything like that. But what we want to do now is want to try to answer any questions that people have; okay?

Okay, go ahead, Lawrence.

MR. KOKAJKO: Okay. First of all, the purpose of the program, as we describe in the purpose and need, is to eliminate surplus weapons plutonium and to get it into a form that is not subject to being diverted to subversive or terrorist needs. And I mentioned that in my opening remarks.

The -- also I'd like to point out, as far as the location in one site, I'm not questioning the policy of the Department of Energy in this case. We were mandated by law to evaluate the fact that they're going to do the proposed MOX facility. I have no authority to question why they do that. I'm now trying to implement that and make sure that it was done safely and in accordance with the law.

In terms of the -- the general question about what the NRC may be doing in response to terrorist...

UNIDENTIFIED: Use the microphone, please.

UNIDENTIFIED: Use the other microphone. That one's not working.

MR. KOKAJKO: It's not working?

MR. CAMERON: Yeah, we're not hearing it out here.

MR. KOKAJKO: Is this one -- is this one working?

MR. CAMERON: Better.

MR. KOKAJKO: In terms of the general -- what is the NRC doing in terms of terrorist activities, the NRC is -- throughout the -- for a lot of commercial uses of radioactive material, are doing vulnerability assessments to insure that the -- we have assessed potential vulnerabilities of diversion and use of whether it's radioactive disbursal devices of dirty bombs or other diversion type activities. We have issued interim compensatory measures to the licensees and applicants as to what they need to be doing. And we have taken an increased security awareness for all commercial licensees and applicants. Beyond that, I cannot go into a lot more detail. But we are aware of the terrorist threat, and we are sensitive to it.

MR. CAMERON: The bottom line is, is that potential terrorist threats are considered in the NRC's evaluation of the application?

MR. KOKAJKO: In the safety evaluation;

yes, sir.

MR. CAMERON: Okay, good. Good.

And Peggy, when -- you'll -- you'll have your -- your chance to speak. But just let me give you -- is there any other question you have?

Okay, go ahead.

MS. ROCHE: Did the Department of Energy tell you to license just one facility in the United States?

MR. HARRIS: It's important to understand that the Department of Energy has the overall lead. But the applicant that we're reviewing is Duke Cogema Stone & Webster. We're responding to one application from them. We don't deal directly with the Department of Energy. Our point of contact is the applicant, who is Duke Cogema Stone & Webster.

MR. CAMERON: So, in other words, we have an application for this facility, and that's why we're reviewing it. And if the program that we're not responsible for develops the need for another application, that would come in to us and we would review that. But we can only review what is in front of us; is that...

MR. HARRIS: That's correct. We don't make the decisions where to put it or who applies.

MR. CAMERON: Okay. Question, Mr. Hooker? Okay. Question?

MR. HOOKER: Did the NRC consider the environmental risk taken with the ratings on these streams that have got a high rate, medium rate, low risk? I mean, did you all get together with the EPA and look at where they match these things?

I'm going to give you a copy of it so you all can look at them. But...

MR. HARRIS: Yeah. What we evaluated...

MR. HOOKER: ...somebody needs to (inaudible).

MR. CAMERON: Okay. And that's why we're here, to find out what we should look at harder. And I think that your concern is -- is some of the streams.

MR. HOOKER: This had input with what you (inaudible).

MR. HARRIS: Okay, we looked at it. In Chapter 3 it evaluates what the current conditions are at the Savannah River Site. And -- but -- but as far as evaluating the impacts from the proposed action, we looked at those areas that would be connected to the proposed action. So -- so if there was a stream that was, you know, on the back 40 that was nowhere near

the MOX facility, wasn't associated with any...

MR. HOOKER: We're talking about Four Mile Creek. That's the one we're talking about.

COURT REPORTER: I'm sorry, we're -- I'm just not getting you.

MR. CAMERON: Yeah, we need to -- we need to get all this on the transcript.

Do you have one more question?

MR. HOOKER: The particular stream I'm talking about is Four Mile Creek.

MR. HARRIS: Yeah, we -- we did look at -- did the water quality associated with Four Mile Creek.

MR. HOOKER: And what did you come up with?

MR. HARRIS: We concluded that the proposed MOX facility would not significantly change the water quality in Four Mile Creek.

MR. CAMERON: And if you have information -- Mr. Hooker, if you have information that would -- that would cause us to -- to reevaluate that, please submit it to us.

Okay, great.

MR. HARRIS: Thank you.

MR. CAMERON: We have some questions out here, and one back there. And I don't know, does

anybody in the upper peninsula out there have a question?

UNIDENTIFIED: (Indiscernible)

MR. CAMERON: All right. Okay. Let's -- let's go for some questions, and then at some point we're going to have to go to comment. Because we have -- luckily, we have a whole lot of people who -- who want to comment.

So let me start over here, and we'll go back there and over. And -- and please try to keep this to -- to mainly questions.

Don?

MR. MONIAK: I have a question concerning existing impact.

MR. CAMERON: Don Moniak.

MR. MONIAK: My name is Don Moniak, M-O-N-I-A-K.

Did you evaluate the impact that SRS would have if they were to -- say in their emissions if they were to release as much air pollution as they're permitted to, or did you evaluate what they are releasing? And the same with waste water discharge. Because their permit levels, what they're permitted to release is very different than what they do on an average. And some of the permit levels are very high.

Then I had one other question regarding the NRC role.

MR. CAMERON: Why don't you -- why don't you put that before us now.

MR. MONIAK: Okay, the other question is, is the Nuclear Regulatory Commission responsible for making sure that the *Atomic Energy Act* is followed? And I'm referring to the provision on foreign ownership, control, and influence of a U.S. nuclear facility. And is the current determination on foreign ownership, control, and influence valid, considering Framatone bought out Duke Engineering a year ago?

Thanks.

MR. HARRIS: The answer to the last question is: Yes, we do enforce the *Atomic Energy Act*. Those issues, ownership issues, are discussed in the safety evaluation report. And Dave could provide some information. But that's -- they're not really germane to the environmental impact statement.

MR. CAMERON: Okay. If we need to get more on that, we'll go to Dave. Can you answer Don's...

MR. HARRIS: Yeah, let me -- let me work -- let me work backwards.

The waste water issues I think we looked

at because the waste from the proposed MOX facility would go to existing SRS facilities. We looked to see if -- if processing that waste would violate permits.

For the air quality, to be honest, Don, I'm not sure whether we looked at existing emissions. I want to say we did, but -- I see Ed nodding. I think that's the case. We looked at what they are currently emitting, not what they're permitted to emit. But, again, we looked at that in terms of would the MOX facility cause them to be out of compliance with any of their air permits, and we thought the answer was no.

MR. CAMERON: Okay. Great.

We're going to let Dave Brown tell us a little bit. But the reference to Ed is Ed Pentecost, who's back here. Ed, identify yourself. He is one of our expert consultants that is helping with the preparation of the environmental impact statement.

Dave, on the question of Don's on foreign ownership.

MR. BROWN: Well, you know, just to give you some context, we anticipate issuing our draft safety evaluation report next month, in April. And in there I can tell you our draft determination is we've looked at the foreign influence and control

information and we have advised and find there's no -- no issue there.

MR. CAMERON: All right, thank you.

Let's go to this gentleman right here. Please give us your name.

MR. SUTHERLAND: I'm Jim Sutherland. I've got a question. I noticed in the book (indiscernible). Did you all send the EIS to anybody that's on this list? I mean, like sitting (indiscernible) first time I've seen the document, and some of the data in here is not correct (indiscernible).

MR. HARRIS: I'll take that as a comment and hope that you'll provide some -- a written comment showing where the datas are inaccurate and what the datas should be.

MR. SUTHERLAND: My question is...

MR. HARRIS: Whether we contacted...

MR. CAMERON: Yeah, can -- can we -- do we know if we sent a copy of the environmental impact statement to local government officials?

MR. HARRIS: Yeah, we sent it -- we sent it to about 500 people, and I don't remember whether New Ellington was on the -- on that list.

MR. CAMERON: Okay. Let's make sure is

there -- are any local government units that did not get a copy, that people know about, or don't think you got a copy, please give us that address and we'll send them a copy.

MR. HARRIS: Actually, if you let Adrienne know in the back table, she can make that happen and we'll...

MR. CAMERON: And, Adrienne, just wave to us.

All right, that's Adrienne back there. If we can...

MR. HARRIS: But we'll take as an action item, Chip, to make sure that New Ellington gets a copy.

MR. CAMERON: Great. Okay. We'll put that up on the board.

Let's go to Glenn Carroll.

MS. CARROLL: I actually thought he was talking about something else. He didn't get his copy, but do you have corrected data that you'll be getting to us?

MR. HARRIS: Correct.

MS. CARROLL: You put some figures up there tonight which were, you know, not very detailed. But are those final figures?

MR. HARRIS: Yes.

MS. CARROLL: So you do have the final data?

MR. HARRIS: Yeah. Actually, the -- the information that's in your handouts that talks -- the numbers there are corrected numbers. But -- but not...

MS. CARROLL: Are they just not attached to the agenda?

MR. HARRIS: It's attached to the agenda; correct. But not all the numbers that are in the EIS are in there. That's why we're going to issue errata sheets with -- you know, there are several huge tables and other references. So we'll issue errata sheets hopefully next week, so that you'll have those.

MS. CARROLL: Do you plan to hold public meetings following the issuance of the correct data?

MR. HARRIS: I don't think that's currently in the plan. But if you're making a request, we would consider it, as always.

MS. CARROLL: I'm making a request.

MR. HARRIS: Well, thank you.

MR. CAMERON: And I would imagine that the -- that issue might turn on whether the corrected data would lead to or could lead to a different conclusion.

MR. HARRIS: Well, again, as I stated in my remarks, the corrected data does not change the NRC's conclusion, you know. If the impacts associated with operation, even though they're twice as much, are still less than one millirem. The accident consequences changed, but they're still large numbers. So -- so the -- you know, whether the number was 20 or 400, it doesn't change the fact that they're significant. So -- so even though the numbers changed, it doesn't change our -- our conclusions.

MR. CAMERON: Okay. Thank you.

And let's go to this gentleman, and then after that, down here, and we're working our way.

MR. CLEMENTS: My name is Tom Clements.

Just two -- couple issue of questions. As we all know, four reactors have been chosen to do this mission, which are mentioned in the draft EIS. But four reactors are not enough to carry out the irradiation of 34 tons. Where are the other two reactors? Where does that stand? At least two more are needed.

MR. HARRIS: The other two reactors would be selected by either DCS or DOE. What we did in our draft environmental impact statement was evaluated impacts to reactors generically. So that would apply

to whether the reactors near Charlotte ultimately would become part of the program, or whether another reactor in the nation would become. So we looked at it generically so it's not a specific evaluation. And also keep in mind that if and when a reactor requests to use the MOX fuel, that requires an additional site-specific review by the Nuclear Regulatory Commission to determine whether it's safe to use that fuel at that reactor.

MR. CLEMENTS: Also, because you -- you mentioned the -- eliminating the immobilization alternative because of the position of Russia. Has -- and this is -- may be more of a DOE thing. But has the agreement with Russia been changed to dictate to the United States what disposition options we choose? I have a copy of it here and...

MR. HARRIS: I'm not aware that the agreement has changed since...

MR. CLEMENTS: Well, let me just...

MR. HARRIS: ...2001.

MR. CLEMENTS: ...clarify this, and I will make a comment. Because a mythology has been created that we -- Russia is dictating to us that we do MOX. And that is not true. The Article 3 of the agreement says, "Disposition shall be by one of the following

methods: irradiation, immobilization, or any other method agreed to by the parties in writing. So we appreciate it if you'd correct the document to reflect what is actually in the agreement. It allows immobilization, and the Russians can't dictate to us what we do with the material.

MR. CAMERON: Let's get some -- let's get some clarification on that for you from the Department of Energy. And, Ken, if you'd just introduce yourself and...

MR. BROMBERG: My name is Ken Bromberg from the Department of Energy. You are correct, the 2000 agreement with Russia, plutonium (indiscernible) disposition agreement does not dictate. It allows either party to use immobilization and/or MOX.

However, Russia has made it known in negotiations with the U.S. over several years that they would not proceed to dispose of their surplus weapon grade plutonium if the U.S. used MOX -- rather, used immobilization only. The Russians feel that immobilization, to use their words, is another form of storage, because immobilization does not degrade the weapon grade plutonium so it can't be reused in weapons. As a result, the Russians have refused to go ahead and dispose of their plutonium. For that

reason, the U.S. is proceeding, of course, as it is currently.

The other thing is that there have been a number of technical problems with immobilization in terms of the high level waste barrier, with the in-tank precipitation problem, and there are currently additional technical studies that have called into question the can and canister immobilization approach that we have been working on for many years. That's not to say it couldn't be fixed or corrected in the long-term, but right now there are a number of technical problems that MOX does not have.

MR. CAMERON: Thank you very much, Ken.

We've got a couple here, and then we're going to come back here, and then we'll work over that way.

Yes, sir? Please give us your name.

MR. TEESE: Greg Teese from Aiken, South Carolina.

Tim, you stated that the numbers that were in the handout are the correct numbers?

MR. HARRIS: Yes, sir.

MR. TEESE: The numbers in the handout for the radiological accidents for continued storage, the no-action alternative, the dose that it has on the

handout is 6.6 person rem; the dose that's in the draft environmental impact statement is 6.6 person sieverts. There's a difference of a factor of 100. Which is the correct number?

MR. HARRIS: Without looking at the document, I believe the information -- those numbers didn't change. So whatever's in the draft environmental impact statement is correct. And if -- if, in fact, the handout used the wrong units, I apologize.

MR. TEESE: If the handout used the wrong units for that, on the same line as the proposed action, the explosion event, it's showing 91,000. What is the correct units for 91,000?

MR. HARRIS: I believe that person rem.

MR. TEESE: Not person sievert?

MR. HARRIS: Not person sievert. We -- we had both units, and we decided to convert them to rem since that's what most people understand in -- in the United States.

MR. TEESE: Okay, thank you.

MR. CAMERON: And I guess that the implied comment there is that we should really check these carefully to make sure that it's correct.

MR. HARRIS: Comment received.

MR. HARMON: My name is Harry Harmon.

On your waste management slide you mentioned that the operation of the MOX plant would generate certain percentages, in addition to waste. My question is: Are those numbers for the total site or for "F" area?

MR. HARRIS: I believe those numbers are for the total site. Those are percentages above what are currently being generated by the Savannah River Site.

MR. HARMON: Is that on an annual basis or...

MR. HARRIS: Correct, annual basis.

MR. HARMON: Annual basis. All right.

MR. CAMERON: Thank you very much.

I think we have two questions right here; or one.

Yes, sir?

MR. WALKER: My name is David Walker. I'm from Aiken.

Tim, you keep mentioning mitigating consequences regarding environmental justice. What exactly are those mitigating consequences?

And the second question is: Will the corrected EIS statement from your department be

available prior to the May 14 deadline for submitting comments?

MR. HARRIS: Yeah, we hope to get that information out to you next week. Obviously the mail will take a little bit of time to get it to you. But we're also going to post that on the -- on our website. So if you want it quickly, you can access it that way. And yes, it will be available before the May 14 comment period.

Your question was: What are the mitigation measures that are proposed? Is that...

MR. WALKER: Yes.

MR. HARRIS: The Nuclear Regulatory Commission -- there's a number of mitigation measures discussed in the EIS, some of which were proposed by the applicant, DCS, and some of which were proposed by NRC.

These were proposed by the NRC, and they include focused public information campaigns to provide technical and environmental health information directly to low income and minority populations, or to local agencies and representatives for those groups.

Also, additional programs directed at local communities providing emergency response services or other emergency facilities to incorporate

additional measures to protect low income and minority populations. So it's to EDC and also to proved some additional focus on environmental -- I'm sorry, emergency responses.

We received some comments last night from a Mr. Cutter on -- on some specifics, and that's really some of the things that will be helpful to us, is -- is as you review these mitigation measures, if you can provide some more details or additional ways that you think mitigation could happen, we're very receptive to that.

MR. CAMERON: Okay. Follow-up?

MR. WALKER: Follow-up. Will these measures take effect before an accident or after?

MR. HARRIS: They would -- they would happen before the accident. Certainly -- certainly the information can...

MR. CAMERON: You may want to rephrase that.

[Laughter.]

MR. HARRIS: Am I still beating my wife? I don't know.

[Laughter.]

MR. HARRIS: The information campaigns would happen if and when a license was granted, before

any hypothetical event happened. So that -- you know, we're not going to wait for an accident to decide, oh, we better go to mitigate it. That mitigation needs to happen before an unlikely event happens.

MR. CAMERON: Okay. Thanks, Tim.

MR. HARRIS: Is that better, Chip?

MR. CAMERON: Sounds better.

MR. HARRIS: And call my wife to see -- see if I'm still beating her.

MR. CAMERON: Okay. Brendolyn, do you have a question?

MS. JENKINS: Good evening. My name is Brendolyn Jenkins and I'm from Aiken, South Carolina.

I want to piggyback for a second on the question that Reverend Walker asked. If it's done before, you said that you would give technical information in a public information campaign. Would those campaigns be held specifically in the impacted community?

MR. HARRIS: I think the answer would be yes. But if -- but if you think that they should be in other areas, you know, we're receptive to that.

MS. JENKINS: Heretofore, until last Thursday, it was the first meeting we've had in our community. So that's pointedly why I asked.

My question is, with the waste management, 300% more TRU waste; 32% more low level; 60% more solid waste. Will new or existing facilities be used to handle that waste? And if it's coming from around the site and not this facility, how, then, does these numbers specifically address MOX?

MR. HARRIS: Those numbers represent the percentage increase that the MOX facility would have relative to what's currently being produced at the Savannah River Site. That is, if you look at the number of cubic meters or volume of waste, say TRU waste that the MOX facility will create annually, and divide that by what the Savannah River Site already does, you get 300%, about. So those numbers relate to that.

Your question also related to whether new facilities would be built. Most of the waste would be processed by existing Savannah River Site facilities. And, as I mentioned, those facilities have the capacity and are permitted to manage that waste. I -- we also talked about the waste solidification building. And that will be a new facility that will process waste from the proposed MOX facility and also the pit disassembly and conversion facility. So that would be new construction.

MS. JENKINS: And did you look at the additional impacts, environmental impacts, on these waste streams?

MR. HARRIS: Yes, ma'am, we did. And as I stated in my presentation, we concluded that the effort of processing the waste from the proposed action would not change significantly the permitted effluents from those waste process facilities at the Savannah River Site.

MS. JENKINS: One last question. On the readjusted or recalculated figures shown, I understand how you made the readjustments and came up with the new conclusions. But what does DOE, NRC, and DCS consider an acceptable death or disease number?

MR. HARRIS: I don't know that we have an -- a definition for that. Certain numbers of latent cancer fatalities that are very small are generally acceptable, but I don't think there's a hard-and-fast number on that.

MR. CAMERON: And I think that Tim used the word "we." You said DOE, DCS, NRC. And I think Tim is just speaking for -- for the NRC at this point. But it's a very pertinent question for the regulatory agency.

Lawrence?

MR. KOKAJKO: We don't consider any death acceptable, first of all. Let -- first, we're talking about latent cancer fatalities, and it's not an actual death. Although we have...

[Laughter.]

MR. KOKAJKO: ...although we have come up with...

[Laughter.]

MR. KOKAJKO: Sir, please.

Although we have come up -- we have done a bounding analysis to see what possible could happen in terms of these hypothetical accidents. The other part of that -- our job is to insure -- assure that they don't happen. That's what the safety review is for. We want to make those things highly unlikely. But the NEPA process asks us to take a look at the broad bounding case, and so we have done that. But we do not -- we don't find any death acceptable. We never have, and we never will.

MR. CAMERON: Okay, thank you.

We're going to go to this side, questions, and then we're going to get started with public comments. And, Jen, I see your hand. We'll go to you before we get public comments.

Gerald?

MR. RUDOLPH: I'm Gerald Rudolph from Columbia. I have a few questions.

One is about memorandum of understandings. Do you -- where can we get a copy of the memorandum of understanding between the Department of Energy and NRC about the security for materials, about the transfer of materials between the -- within the complex commercial process for MOX. And where are we going to find the memorandum of understanding for who is or is not a MOX factory worker, for purposes of this accident analysis? That's the first question.

And you want me to go through all the questions first?

MR. HARRIS: No, please.

I'm going to ask Dave to talk about the MOU. I think as far as -- I didn't quite understand your last question about what was a MOX facility worker. Certainly...

MR. RUDOLPH: Who is -- who is a MOX -- for the benefit of accident analysis, who is or is not a MOX factory worker or a MOX facility worker.

MR. HARRIS: Well, those would be workers that -- that operate within the footprint of the proposed MOX facility.

MR. RUDOLPH: I mean, but some of them may

be working on the DOE when they -- when the material is in the hands of DOE, and when it's transferred to the NRC license facility, are you only considering the -- so there's no memorandum of understanding for identifying...

MR. HARRIS: Well, I think MOX workers would be employed by Duke Cogema Stone & Webster, and other workers at the Savannah River Site are employed by -- by other various DOE contractors.

MR. RUDOLPH: So there's no -- there's no memorandum of understanding for that?

MR. HARRIS: Not that I'm aware of. But I'll let Dave talk about the memorandum of understanding for security of material, if you can.

MR. BROWN: Let me just try to address your question with regard to who's a worker. For Savannah River Site employees who -- who would not be working at the MOX plant, DCS has committed to meeting a certain section of our regulation that says we're going to train those people about the risks at the MOX plant, and we're going to provide both posting -- postings and notices. And if they do that, then our regulations allow that they be treated as workers for the purposes of the safety evaluation. That's their proposal, and that's what we're evaluating as part of

the safety review.

MR. RUDOLPH: So that allows you to exclude them from the submission of off-site impact? If they -- other -- if they -- more people -- how does that work? How do you define who's on-site and off-site from the MOX facility?

MR. BROWN: It does -- there is a little bit of a complication. For the purposes of a safety review, when we're looking at potential accidents, we're considering those Savannah River Site employees who are within the site boundary to be workers. When we're looking at normal operation, if the facility is constructed and operating, the question of who's a member of the public and who's a worker really is determined by what does that person do for a living. Are they already working at the Savannah River Site in an occupation where they're exposed to radiation? If they are, then they're workers. If they're not, then they're members of the public. And the NRC's position is: Yes, there can be members of the public on the Savannah River Site, even employees of the plant. And the radiation dose limits for those individuals would be NRC's limits for members of the public.

Is that answer your question (sic)?

MR. RUDOLPH: Perhaps. Not

satisfactorily, though. Let me go to the next question.

MR. BROWN: Okay.

MR. RUDOLPH: You have -- from what I understand, the NRC says that the throughput rate at the factory could -- could (indiscernible) about 10 years or 20 years. What is that -- what is that discussion about? And you showed us a 20-year license period for the operations, but -- but then you used 10 years of operations for the analysis. What -- can you explain?

MR. HARRIS: Yeah. Basically we assumed that the license would be a 20-year period. And that would include they would have to have a license for initial startup and then processing. But the actually throughput we estimated it would take about ten years.

So we looked at things on a annual basis, and the maximum throughput I think was 3.5 metric tons, number comes to mind, on an annual basis. So we look at the impacts annually. So if they didn't produce, if the period of operation was longer than that, the throughput would be less. There's only so much plutonium that's going to be put through the facility.

MR. RUDOLPH: So you're assuming the

impact is the same?

A. We assume that the impacts are bounded by -- assuming a ten-year operation period, with a maximum throughput of 3.5 metric tons.

MR. RUDOLPH: One more question. You say that the -- that the -- the impacts of the -- of 40% MOX or a 100% flow of enriched uranium would be the same; is that -- how do you support that?

MR. HARRIS: There's details in the environmental impact statement. But essentially, the conclusion that was drawn was on a generic basis. The emissions would be about the same from normal operations, whether it used -- the reactor used a mixture of MOX fuel or 100% low enriched uranium.

MR. RUDOLPH: Does it consider the temperature difference between...

MR. HARRIS: That segment's based on effluents that would come out of the plant; not internal safety operations, which would, as I mentioned, would be evaluated on a site-specific basis.

MR. RUDOLPH: So you're assuming that -- that the hotter MOX fuel would have the same parameters or have the same impact, the same...

MR. HARRIS: No, not the same -- not the

same parameters, but the emissions from the reactor would be the same.

MR. RUDOLPH: And is there a study for that, or did you just assume that?

MR. HARRIS: We looked at some information that the Department of Energy had, and the references are provided in the environmental report -- I mean, environmental impact statement, excuse me.

MR. CAMERON: Thank you, Gerald.

Did you have a question, sir?

MR. WATSON: My name's Darrell Watson. I'm from Columbia. Got a couple of questions for you.

First, has a safe, efficient, and successful use of MOX fuel been -- fuel made with weapons grade plutonium ever been accomplished?

MR. HARRIS: Do you want to answer that, Dave?

MR. BROWN: Could you repeat the question, please.

MR. WATSON: Has the safe, efficient, and successful commercial use of MOX fuel made with weapons grade plutonium ever been accomplished?

MR. BROWN: No, there -- there is no history in the United States of using weapons grade MOX fuel in a commercial nuclear power reactor.

MR. WATSON: Is there any record of that being done anywhere in the world?

MR. BROWN: Not except on a test or experimental basis. No, not that I'm aware of.

MR. WATSON: So South Carolina's going to be the first test, so to speak, for the MOX program in the world?

MR. BROWN: The -- the...

MR. WATSON: In this -- in this regards of it being made with weapons grade plutonium.

MR. BROWN: With respect to weapons grade plutonium. And the distinction you're making is important. Because certainly there are countries in the world that do reprocess nuclear fuel, recover the plutonium, and put that back through a mixed oxide fuel plant to put back into reactors. France, of course, being the notable example, and the fact that Cogema is a partner in the consortium that's the applicant for this plant, reflects their experience in this.

MR. WATSON: Okay, that leads to my second question about Cogema. Given that Cogema's part of the consortium to handle the MOX process in the United States and South Carolina, given its bad safety and environmental record, especially in La Hague at the

processing plant in France, why would DOE even bring a licensing consideration with Cogema involved?

MR. HARRIS: We have looked at some of the information that the applicant has provided us, that includes their experience in France, especially with regard to environmental effluents or emissions, if you will.

MR. WATSON: What's the status of Russia's MOX program currently, and does it use weapons grade plutonium like ours?

MR. BROWN: The Russian program, what we're working to here is -- what DOE's plan is, is to maintain parity between the U.S. and the Russian programs. Of course, their program is also about surplus weapons grade plutonium.

MR. WATSON: Okay, I'm -- correct me if I'm wrong, but I thought their program was currently at a stall. They're not processing MOX currently, as we speak.

MR. BROWN: Oh, no, they -- they were -- there is no Russian MOX facility constructed or operating at this time; that's true.

MR. CAMERON: Right. We really need to get going to hear all of your -- your comments. We'll take one question here; we'll go over to Jen; and then

we're going to start public commenting.

Yes, sir?

MR. GUILD: My name is Bob, and I have a couple of questions. I think maybe an appropriate observation in response to the environmental justice question, that consequences are high for having significant facilities, whether it be 20 or 2000. But that consequence has to be taken into account of risk of that consequence, which is a probability (indiscernible). How likely is the fact -- assume the accident would happen that would lead to those cancer deaths.

Yet, I find the EIS completely devoid of any effort at putting a number on that probability function, which is a key to your conclusion which is that the risk is acceptable. So you use a very precise number for the number of deaths, and then acknowledge an error and correct that error and create the impression that you know what the consequence would be. Yet I don't see any serious effort at trying to project what the actual probability of that accident in that occurring. And can you enlighten us on why you didn't do that; and if you did do that, didn't express in the EIS what that -- what that chance of a serious accident is at the facility.

MR. HARRIS: Do you want to answer that, Dave? Dave's involved with the safety review, and these really relate to -- because the measures to make those accidents highly unlikely are in the safety report review. So I'll let Dave discuss what they're doing there.

MR. BROWN: In the handout and one of Tim's slides we showed like a fine line of the safety review and the environmental review. One thing you see right away is the safety review extends for a couple of years from now. And so one of the things we're going to be doing, as we go through that licensing review, is trying to get a much better understanding of what the applicant thinks the likelihood of those accidents are. And more importantly, what's the reliability of the equipment that's going to be -- be used to prevent those accidents.

MR. GUILD: I'm sorry to interrupt. But you're going to make the decision now as to whether or not the *National Environmental Policy Act* requirements are met, whether you should authorize going forward with this as a matter of cost benefit. You're telling us you don't know the answer as to the likelihood of that accident occurring?

MR. BROWN: We're -- right now we're going to issue a draft report next month that's our consideration of the likelihoods for a construction authorization. My point is we're going to continue to look at those likelihoods as we continue through looking at their application to possess and use this plutonium in the plant.

MR. CAMERON: Could we get -- could we let Lawrence speak here, because you're raising an important point as to where is the supporting data for the conclusion you've requested.

Lawrence?

MR. KOKAJKO: Yeah, part of it, as -- as I mentioned earlier, the -- is the NEPA process, itself. It said to take a look at...

UNIDENTIFIED: Can't hear you.

MR. KOKAJKO: Some of the -- the problem I know is with the NEPA process, itself. It told us to take a look at the bounding conditions and the parameters of what these consequences are. Our regulations say these accidents will be made highly unlikely. And the DCS has to submit an integrated safety assessment which takes a look at the probabilities of these accidents occurring. And, as Dave pointed out, reliability of equipment,

preventative and mitigating measures that may be used to prevent and preclude these things from occurring, so that we don't ever get into an accident situation where there could be latent cancer fatalities, or even actual deaths.

And, by the way, it includes more than just radiation. It includes anything like chemicals, chemical exposures, and those -- those, as well. As well as physical -- you know, normal physical things like, you know, falling off ladders and stuff like that.

MR. GUILD: I mean, just an observation, not to belabor the point, but good government decision-making, the NEPA requires -- requires you to be explicit now about those very issues. Because I want to know what the risk is of me walking across the street and not getting hit by a car, but I want you to know what the risk is of a serious accident happening at the MOX facility before you decide that you should go forward with licensing this plant.

MR. KOKAJKO: Before we go forward with licensing, we will do that. But for the environmental purpose for this evening, the assessment of the draft environmental impact statement, we've given you what we think are the -- could be the potential

consequences. And we know that the regulations are going to require that those accidents be made highly unlikely.

MR. GUILD: All right. The last question. I heard some -- a useful question earlier about license term and the projected expected throughput term, if you will, for the processing of the surplus plutonium. You know, I have a very strong concern that we're going to end up with a MOX fabrication facility that's -- that processed its surplus weapons plutonium, and then is going to be available for commercial mixed oxide fuel production for, you know, the wonderful, long-promised, never realized closed commercial nuclear fuel cycle in this country. And that, like those facilities you mentioned in Europe, we're going to suddenly have commercial mixed oxide fuel promoted with weapons non-proliferation as the foot-in-the-door.

So can you tell us what would be required in order to convert this facility, at the end of its license life, into a facility that does those things that I'm concerned about, and that is becomes a commercial fuel production facility.

MR. CAMERON: And you may -- you may not know, in terms of physical adaptation, what needs to

happen. But I think that the question would be: What would the NRC require in terms of new licenses, etcetera, etcetera, if that ever did happen. And we don't know if that's even feasible.

But, Lawrence, can you shed some light on that? I don't know if you can or not.

MR. KOKAJKO: I'm not sure I can proved a full response to your -- your question. Anything that would be involved in fuel fabrication would be licensed under 10 CFR -- excuse me, Title X, *Code of Federal Regulations, Part 70*. And those regulations do allow that any facility that fabricates and enriches fuel for use in commercial nuclear power plants, that it meet certain safety and environmental standards.

MR. CAMERON: The license would be very specific about what the facility could do.

MR. KOKAJKO: Correct.

MR. CAMERON: And if there was going to be any major change to that, it would be a new license.

But let me see if we can get the Department of Energy to shed some light on this. Ken?

MR. BROMBERG: Very simply -- this is Ken Bromberg again. That facility that's being designed and planted and built at the Savannah River cannot be

used as a commercial facility. The entire facility, the shielding in it, is designed for the low radiation for weapon grade plutonium. It's entirely impossible to use for reactor fuel grade plutonium.

UNIDENTIFIED: Impossible?

MR. BROMBERG: Yes. Without just completely basically tearing out all the piping in the entire facility, and redesigning and rebuilding it. The facility just can't be used for that purpose.

Furthermore, the facility will be shut down at the end of the approximately ten-year plutonium disposition mission.

MR. CAMERON: Great. Thank you very much, Ken.

Okay, we're going to go to one last question over here, and then we're going to go to hear some more from all of you a bit more formally.

Jen?

MS. KATO: I'm Jen Cooch Kato. I'm with the Sierra Club in Georgia. I have actually three questions that will be answered very quickly.

The first one is an extension of this gentleman's question, and it's very direct and has a very simple answer. And the question is: Was the probability of one used in assessing the human health

impacts of any accident scenario?

MR. BROWN: When you're looking at the consequences of the accident that's summarized, yes, it's a probability of one. In other words, the event was assumed to have occurred. Those are the consequences we've estimated.

MS. KATO: When I -- when I look at the doses and the -- and the (indiscernible), for example, for an explosion, which would undoubtedly involve plutonium, these figures are so miniscule that it seems like what you have done is actually risk-informed calculations. And risk-informed calculations do not assume a probability of one when you actually go out as far as latent cancer fatalities. They have been diluted by the probability of the accident occurring, and then further diluted by the probability of it occurring in a given day.

MR. BROWN: I understand your comment. That is not what we did.

MS. KATO: Okay, thank you.

Second, why not a 20-year windrows instead of a five year, since we're dealing with a possibly 20-year mission?

MR. BROWN: The five-year windrows, I think, reflects a good estimate of the wind conditions

at the Savannah River Site. But if you have information about, you know, updated data or something you'd like us to know about, we'd be happy to hear about that.

MS. KATO: Well, the dose reconstruction is looking at a 20-year windrow, so it's available. I know DOE has it.

And my last question is: What is the current NRC plan? This doesn't really have to do with this DEIS, but I'm really curious about it. What's the current NRC plan for continued supervision of the MFFF? And I'd like to feel like the guys in the white hats are out there on a daily basis or a very frequent basis.

MR. CAMERON: And could you just enlighten all of us on that acronym.

MS. KATO: MOX fuel fabrication facility.

MR. HARRIS: Fabrication facility.

Was your -- was your question, Jen, what are we going to do...

MS. KATO: On the provision of ongoing oversight.

MR. HARRIS: Yeah. I think -- I think, if I understand your question---and I know you'll correct me if I didn't get it right---is what are we going to

do in the future. You know, are we going to issue this license and walk away.

MS. KATO: I just want to know what your plan...

MR. HARRIS: The plan would be that, you know, again, we're going to look at the construction decision. We talked about the EIS. We're going to look at the operation. In the event that we do issue a license, we do inspections at the facilities, the current plan is to have an onsite resident there who is there on a daily basis to look at the operation of the facility. So, yeah, we will be there.

MR. CAMERON: If the NRC licenses it, we're going to regulate it; right?

MR. HARRIS: I think if we license it, we are regulating it; right?

MR. CAMERON: And -- you know what I mean.

MR. HARRIS: I know what you mean.

MR. CAMERON: All right. Okay, thank you for those questions.

We're going to go to -- to speakers. We have about 25 people. So I really need to ask you to try to be concise and -- and don't go any longer than five minutes. Of course, we want to stay and hear what everybody has to say. But it would help us all

if -- if you could try to keep it in that window.

And the first four speakers, so that you have an idea of when you're coming up here, we're going to go to -- to Bill Robinson, then Camille Price, Mal McKibben, and Thomas Williams.

So, is Mr. Robinson here? Oh, Mr. Robinson. There he is. All right.

MR. ROBINSON: I'm Bill Robinson from Allendale County, Vice Chairman of the county council.

I'm certainly proud to be here to express our support for the MOX fuel facility at SRS. As we went back and looked at our history, Allendale County has always supported our nation's effort to keep us strong and secure. Now, if you go back 50 years ago---and I think we all can remember---now, this country was called upon to develop one of the most devastating weapon known to mankind. And we did it basically, not because we wanted to be the world powerhouse, so to speak; we did it simply because -- to protect this country. And we did it, also, to discourage the misuse of that most powerful weapon by other nations.

Now, as we look today, to me the scenario is the same. We have different players. In fact, we have more players. The technology for weapons of mass destruction is available to any nation. And what's

scary, weapon grade plutonium, the supply is plentiful. I think Russia looked at it, extended a hand to us to come and help. Again, I think we see our nation's security at risk.

We support the MOX initiative, simply because we feel what we face today is as great as what we faced 50 years ago. I thank you.

MR. CAMERON: Thank you very much, Mr. Robinson.

And we're next going to go to Camille. Camille Price.

Is Camille still here?

(No audible response)

MR. CAMERON: Okay. Mr. McKibben. Mal McKibben.

MR. McKIBBEN: Thank you very much.

My name is Mal McKibben, and I'm a native of North Augusta and have an office over in Aiken as Executive Director of Citizens for Nuclear Technology awareness, CNTA.

We are the nation's largest citizen-based pro-nuclear education group with about 2,400 members. We strongly support the pit disassembly and conversion facility and the MOX facility, and we have been encouraging that for a long time.

However, when we look at the -- the draft environmental impact statement, we do find quite a number of inadequacies and quite a number of flaws. I'm only going to talk about one of those tonight, but in the written statement I'll address some of the others, which have to do mainly with the lack of sufficient data so that you could analyze it.

The guidance that is given to NRC -- by NRC and DOE to the people who write environmental impact statement and who are required to evaluate accidents says that those accidents should be reasonably foreseeable. Unfortunately, it doesn't tell you what that is. Is that -- is that a once-in-a-million-year frequency for that accident; or is that a once-in-a-billion-year frequency for that accident; or is that once in a trillion? You know, the earth's only a few billion years old, so I'm not quite sure how silly we want to get with that.

But the hypothetical accident in the draft EIS is a fire that takes place in a plutonium glove box in the pit disassembly and conversion facility. There is also one in the MOX plant that I just saw tonight, I guess, for the first time. But it assumes that the fire in that plutonium cabinet or glove box gets out of control; it releases tritium and plutonium

from its glove box confinement. The tritium and plutonium are soon to be expelled out of the ventilation stack of the building. And some fraction of that, then, gets disbursed and deposited on farmers' products that are intended to be eaten by people and not animals.

And then it further assumes that those products are eaten 100% by people with 100% of that radioactivity still on it. And it goes out for 50 miles. And it contains both a tritium component and a plutonium component, but unfortunately the EIS doesn't give you enough data to figure out how much of each one.

The scenario contains a lot of uncertainty. And it is CNTA's opinion, based on what we've looked at so far, that this pathway through the food chain simply is an accident scenario that does not meet the reasonably foreseeable criteria. And I want to talk a little bit about why we think that is so. And also we don't believe that the fluid pathway should be considered or put into the final environmental impact statement for that reason. It is not a viable or reasonably foreseeable incident.

The scenario, as I said, has a lot of unreality. Let me go through some of that reality,

just quickly. First of all, the fire -- for the fire to occur is a very unlikely event, for just a little fire to start. During -- just a little history might be of value here. In the 1950s and 1960s, when we were starting up plutonium processing facilities here and in other places around the country, there were, in fact, some fires in plutonium processing facilities. They were small. And they taught us a lesson. They taught us why they happened, and we made changes to the design as well as to the administrative controls, to keep those from ever happening again. And -- and, by golly, it worked. We haven't had anymore since then.

But one other thing that happened that -- that is more important and more relevant to the -- to the DEIS that we're talking about, in 1957, and again in 1969, serious fires occurred in plutonium glove boxes in Rocky Flats in Colorado. Now, these were glove boxes that were connected in a train, one glove box connected to another. And these glove boxes contained a number of combustible materials, including they were made -- some components of them were of wood. And the glove boxes today are designed quite differently. They're made of stainless steel. And the amount of plutonium and the amount of combustibles

in a glove box is strictly limited by procedure and requirement.

At Rocky Flats there was no fire suppression system and there were no fire barriers between the glove boxes. Today there are fire barriers and there are fire suppression systems. The Rocky Flats glove box ventilation system pulled air from one end of the train all the way down through, and exhausted on the other end. It spread the fire very quickly from one glove box to another. Today we have each box ventilated separately, and barriers between them.

But not only that, these glove boxes in question, both in the PDCF facility and in the MOX facility, are inerted. There is no air there for combustion to take place.

MR. CAMERON: Mr. McKibben, can you sort of summarize for us.

MR. McKIBBEN: Okay.

MR. CAMERON: We really appreciate your -- your comments, but if you could -- could finish it.

MR. McKIBBEN: All right, I'll rush through it real quick.

MR. CAMERON: All right.

MR. McKIBBEN: Those fires, which were far

worse than any fire that we could have today, had an interesting result that is relevant to this draft environmental impact statement. In one of those fires no plutonium left the facility, left the building. In the other one, there was a breach by the fire of the -- of a filter, and there was a small amount that got outside the building, but none of it could be detected more than two miles away. My point there is that because plutonium is not a volatile component, it is very dense, heavier than lead oxide, it does not migrate easily. So it stays put. So, assuming that plutonium is going to be scattered for 50 miles and land on farm products is not reasonably foreseeable.

Let me just quickly summarize, then, and close this out. The tritium in this accident would, indeed, go up the stack. It would, indeed, be deposited. But I think the amount that is assumed to have -- to be there and the amount that is assumed to deposit is grossly in excess of what it would be in reality.

But there are a lot of -- several other assumptions here in this that don't come close to reality. One of them is that the -- this only occurs -- or this will occur when the food is ripe and ready to pick. Now, that's interesting. But the tritium,

if it landed any other time, would dissipate and not be in the food. It exchanges with the water vapor in the atmosphere and it evaporates as water. It assumes there's no rain before it's picked, because that would wash it away. It assumes that -- that food, once picked, is not washed by the packing house, by the wholesaler, by the retailer, by the housewife. At least in my house, that probability is zero. It also assumes that the food is eaten immediately, because if you sit it -- leave it sitting around in your refrigerator for a while it will evaporate and go away and there won't be any of it there.

Finally, and most importantly, it assumes that the government would not collect that contaminated food so that people couldn't eat it. Now, what do you think the probability of that is? Bottom line is, this is a hypothetical accident that was not occur, cannot occur, and it shouldn't be included in the draft EIS.

Thank you.

MR. CAMERON: Thank you very much, Mr. McKibben. And we'll look forward to your -- your written comments on this.

Is Mr. Williams -- Thomas Williams...

Hi, Mr. Williams.

MR. WILLIAMS: My name is Thomas Williams, and I'm from Barnwell, South Carolina, Chairman of the Barnwell County Council.

The Barnwell County Council has passed a resolution in support of the new MOX facility being built at the Savannah River Site. Some of us have reviewed the Nuclear Regulatory Commission's draft environmental impact statement on the MOX facility, and believe NRC's preliminary conclusion that the facility should be constructed is the right conclusion. We feel strongly that the MOX facility can be constructed and operated safely and efficient. The companies involved are known expert in the nuclear arena (sic) and has many years of experience. In addition, the facility will be regulated by NRC.

NRC has federal responsibility to insure the nuclear facility is designed and operated safely, with no current or future danger to the public or the environmental. This independent regulatory oversight should give the public confidence.

After almost a year of study and evaluation of the MOX facility, NRC says the benefit of MOX facility outweighs the disadvantage. The biggest benefit is to the world to get surplus weapons grade plutonium out of harm's way, out of circulation.

This facility should be built. There is no major impact to the public or the environment from normal, routine operations. We think moving forward with this program would help insure a safe environment for years to come, and we feel that the construction and operation of this facility at Savannah River Site will truly be a benefit.

Thank you.

MR. CAMERON: Okay. Thank you very much, Mr. Williams.

I'm going to -- to assume -- Mr. Mareska? There was someone who signed in to speak, and there was just Sierra Club with that. Was that -- was that you?

MR. MARESKA: That -- that wasn't me.

MR. CAMERON: Was it Mr. Hooker? All right.

We're going to go to -- to Mr. Hooker. And amazing coincidence, Don Moniak is right after Mr. Hooker. And then Richard -- is it Richard Canty? Okay, we'll figure that out.

Mr. Hooker?

MR. HOOKER: Okay. Thank you for letting me speak tonight. Appreciate the opportunity.

First I'd like to have this put on record.

MR. CAMERON: Great. Thank you.

(Mr. Hooker hands certain material to the court reporter.)

MR. HOOKER: I'm William Hooker, Chair of the Savannah River Group of the Sierra Club, representing over 500 citizens of this area. We oppose the MOX fuel fabrication facility, and support immobilizing of plutonium as an alternative. Many aspects of the MFFF make it mostly risky, least cost beneficial option of plutonium management or disposal.

MR. CAMERON: Mr. Hooker, can you just speak up a little bit.

MR. HOOKER: This thing -- I can't see with my bifocals.

MR. CAMERON: Oh, that's one of -- yeah, I know about that.

MR. HOOKER: Due to the high alert level, all shipments to and from SRS have been halted. That the threat of terrorism inspires this action is commended. The highlights -- this highlights the DEIS deficiency is not addressing a terrorist or sabotage set of action scenarios. Dose and risk cost benefit analysis must be evaluated for PDCF, MFFF, WSB, plutonium transport to and from the site, and offsite fuel transport for terrorism sabotage accident

scenarios.

Absence of offsite emergency plan by DCS for any accident scenario -- scenario a severe oversight. Either compounding the effect of the lack of an emergency must be evaluated by the EIS or the emergency plans must be present.

The environmental impacts and human -- human health risks waste management of the PDCF and MFFF must be specifically evaluated. Latent cancer facilities associated with the proposed WSB and all substantial handling and transport are significantly portions of the real cost of this mission are minimized in the DEIS. This must be corrected.

With operation data from the PDCF and the MFF not currently subject for review, the range considered for operational life of 10 to 20 years is huge. The arbitrary use of the ten-year figure is RC analysis of a default low-end assumption that doesn't offer conservative estimates necessary to protect human health. A 20-year figure for operating life must be used in estimating dose and risk cost benefit analysis.

DOE has a very poor history of caring for those American citizens it has exposed outside possible military, and that's questionable. And

that's from -- from me. The NRC has the opportunity now to require that -- that proper care be taken to prevent or mitigate any harm or expenses to the stakeholders.

I'm going to give a couple of examples -- examples of fraud committed and covered up of exposure to subcontractors and employees to heavy metals, tritium, by DOE-Savannah River and its contracts to the Savannah River Site is clearly shown in both my congressional investigation I have, and the following information submitted tonight with -- which will show that they are still -- Savannah River Site is still covering up and committing fraud. The information submitted tonight is -- was sent to Dr. J. J. Stucker, who is over the governor's Nuclear Advisory Council in Columbia, South Carolina, certified receipt #7002 0510 0000 0205 2433, which includes an Email concerning USCA reading room material being removed, Freedom of Information Case #VFA-0749, a final replay from DOE letter dated July 30th, 202 (sic), concerning my freedom of information from DOE-Savannah River. Work clearance permit signed on 2/22/1999, at 12:00, by Westinghouse manager not identifying any hazardous material in Four Mile Creek, from -- a reply from GSDL hair analysis from three employees of Georgia

Bowhunters Supply Company, information from ATSDR concerning toxins: antimony 125 and 145, nickel, arsenic, and mercury. The last item is a claim of lien filed under miscellaneous Volume 1107, Page 281, on 1/9/02 in the RMC office, County of Aiken, South Carolina.

The draft report NUREG-1767 clearly shows additional exposure path examples. We trusted Westinghouse and the Department of Energy at the Savannah River Site to tell us what we had been exposed to from 2/10/1992 through 12/31/1999 while working in high, medium, and low risk sites at the Savannah River Site unprotected, and they -- all they could do was laugh and make jokes out of what we had been in while we were working for the U.S. Forestry Service, slash, Savannah River Institute on 3/20, 21, 22, and 2000 -- of the year 2000, during a NIOSH investigation. Lie and coverup is the name of the game at Savannah River Site, and safety and health of the employees or the general public is not the interest. How can we trust the prime contractor and its partners, let alone the U.S. Department of Energy now with anything such as a MOX facility at the Savannah River Site?

I included those three samples from -- for

the analysis from the three individuals. And I'd also like to say that I've -- I have eight dogs. Five of them's been on the Savannah River Site; three of them's not. The three that I have at the house, alive; the five that worked on the Savannah River plant is dead. I have -- I have these dogs that used at the Savannah River Site, all these dogs are also dead. And I believe it was from the exposure they received from hunting them in these active waste sites listed on the EPA Drawing GCO-1999, rev. no. Five area Savannah River Site approved 4/6/1999 by Ed Campbell. BSRI environmental -- this is the same units as EPA drawing, except BSRI environmental management has ranked the units -- numbers and units name risk factors as low, medium, and high. These records also show the Unit 29, Hp-52 pond as high risk, and per Westinghouse presentation to NIOSH that was printed by -- was presented by Sandy Human and Steven Johns, both Westinghouse managers, that also committed fraud on 3/20/2000 to NIOSH.

MR. CAMERON: Mr. Hooker, you may want to give us those numbers in -- in writing and just...

MR. HOOKER: They right there.

MR. CAMERON: ...give us your substantive point. But could you try to wrap up for us now?

MR. HOOKER: Right.

MR. CAMERON: Thank you.

MR. HOOKER: I'd like to read the Email, the portion of it, and then I'll -- on top of Notebook Z105 is a sticky notepad that said, "William Hooker." This note was being hauled off as a potential sensitive, along with other 50 boxes. It contained records of spills from 1990 to 19-1 (sic) time frame. The person that wrote me this Email asked me do I have a freedom of information in for such information.

I went back for my freedom of information request that I -- and I got a reply on July 30th, 2002, from DOE. I asked for environment report for 2002, what caused the failures from 1988 -- 1999 exceedance of SCDHEC issued NPDES permit liquid discharge limited as referenced. I asked for August 4th outfall G-10, Four Mile Branch failure, chronic toxity (sic), what causes failure. August 28th, acute toxic, it was unable to determine what causes failure. Seven exceeds as shown on Page 138 of 1991; ten exceeds of '92; ten exceeds of '93; 9 exceeds of '94; 19 exceeds of '95; 14 exceeds of '96; 7 exceedances 1997. And this is their reply.

"The Savannah River Site performed a search for exceedance and full-size map

portion of your request and found no responsive documents to your remaining request numbers 2 through 12. Also, regarding these non-existing records, the freedom of information does not require compenpation (sic) or creation of record for purpose of satisfying a request for records. Therefore, SRS does not -- did not locate any responsive documents to your request or what caused the failures."

MR. CAMERON: And, Mr. Hooker, are you...

MR. HOOKER: I'm through.

MR. CAMERON: That's it?

MR. HOOKER: Yeah.

MR. CAMERON: All right.

MR. HOOKER: Yeah, I -- I submitted...

MR. CAMERON: And you've got this for the record? Great. Thank you very much, Mr. Hooker.

[Applause.]

MR. CAMERON: And we're going to -- we're going to go to Don Moniak now, and then we're going to hear from Ed Presnell.

MS. CARROLL: Are you going to explain your crack about the "by coincidence thing"?

MR. MONIAK: Yeah, that was a crack.

MS. CARROLL: What does that mean?

MR. CAMERON: It wasn't a crack. It was just that the next name on the list was Don Moniak.

MS. CARROLL: And you were standing right next to him?

MR. MONIAK: By coincidence.

MR. CAMERON: Yeah. I mean, it's on the list. I mean, you can look at it.

Don, go ahead.

MR. MONIAK: I'll let you go. Just a second.

My name is Don Moniak, and I'm here representing the Blue Ridge Environmental Defense League on behalf of Janet and Lou Zeller, who couldn't make it tonight. Janet had replacement hip surgery this week.

Want to talk first about risk. It's probability times consequences. Consequences are economic and cultural. The stigma attacked -- the stigma attached to the consequences of a radiological accident are difficult to measure, but they have to be addressed. This was raised repeatedly in Texas during the surplus plutonium disposition EIS by people who farm for a living. Accidents that may have no

measurable human impact can put a farmer out of business because nobody wants his product -- their product. That's fact. There are other consequences that have to be considered.

The only consequence that's considered in here is latent cancer fatalities. If that is the only health consequence that is going to be addressed, at least say why other consequences are not being addressed, what you know and what you don't know about the impacts of ionizing radiation.

There's not much in here about what is the hazard of radiation. We're presenting this chart all the time about what the average natural background is in this country. And Tim was wrong, in that the natural background averages about 290 millirems per year, and it was presented as 360. The 360's including X-rays and things. Not everybody gets X-rays. A Christian Scientist does not get X-rays. Certainly not to my -- I don't get many X-rays. I don't let me dentist X-ray me every time I go in. That is not part of natural background. You need to say what is natural background around here, not what it is at a national level, because around here, at lower elevation, radon levels are low, there's very few basements around here because there are such sandy

areas. What is it around here? That needs to be addressed in this. And what harm does natural background radiation cause? We know what the benefits are. Without solar radiation we'd be nowhere. Solar radiation, the sun, solar energy is still our number one power source. It just isn't on the grid. It still provides us with almost all of our energy needs, and always has and always will. And when it doesn't, we won't be sitting around here talking about plutonium.

What is not in this document is what the radiological impact is. They tell us what the potential radiological dose is, but not what the impact is in terms of concrete measurements, curies or becquerels. Whereas with the chemical hazard we're told concrete numbers. We're told this many tons a year of nitrous oxide or this many tons a year of this or that will be released. But there's no equivalent numbers for radiation impact. So that needs to be put in this.

The NRC reported annual air pollutants for select non-rad chemicals and elements at Savannah River Site. And for the affected area they chose this very arbitrary figure of one ton per year being released of a chemical. Well, that doesn't have much

to do with what the hazard of that chemical is, because at SRS they release quite a bit of mercury into the environment, but they don't get up to one ton very often. More like anywhere from 100 to 600 pounds in the last ten years, which is a lot of mercury.

So what you need to do is, in the affected environment part, is say what kind of impacts are there, not which chemicals are being released at a rate of more than one ton per year. There's an absence of discussion on americium in here, because americium is the radioisotope that has to be separated from plutonium in order to make plutonium MOX fuel. And this poses a risk that's disproportional to plutonium, in general; and there will be a large waste stream of americium contaminated material. I asked: Why not just put all that americium into some smoke detectors and use it like a product, like we're trying to use plutonium to recycle. Tell us why that couldn't be done. What are the hazards of americium?

The units in this document are not consistent. You go from cubic meters to gallons, back and forth. I think the liquid radioactive waste stream should be reported in liters and gallons, like it has been all along.

Sort of like to get along to the changes

that have occurred since January 2000, three years ago, to this facility when the design cost was $56 million. Today the design cost is $171 million. And I'll bet you that it rises higher than that. The size of the facility has increased from 120,000 square feet of hardened space to 366,000 square feet of hardened space. Essentially, they're building a new canyon out there that will replace the capabilities of the existing canyons. That is a huge change from the Department of Energy's analysis. The amount of liquid radioactive waste has increased to about 500 gallons a year, to more than 400,000 gallons per year. And the decision was based to go forward with MOX instead of immobilization on this faulty analysis that occurred. The latent cancer fatalities that DOE said in a worst case accident, which would be an earthquake, it was much less risk of an explosion at a MOX fuel facility back then because it was all dry processing. They said we wouldn't need to do liquid processing. Now it's 200. There's a lot of other changes that have occurred, too. And the Department of Energy was very dishonest in their analysis.

355,000 gallons a year liquid radioactive waste. Yeah, that's not much compared to what Savannah River Site goes through every year. If it

was at a Greenfield facility people would be up in arms. It's still a waste stream that is unnecessary if immobilization was implemented. And it's not a low impact. That's a lot of waste that has to be treated at the effluent treatment facility, and what is left from that is going to end up in the steams of the state and the rivers of the country.

The tritium accident, they don't list the number of curries that are postulated to be released in an accident, and don't say what the routine releases will be at the pit disassembly and conversion facility. Three years ago it was about 1000 curies per year tritium being released. That's a drop in the bucket for SRS, because they have released so much tritium over time that an average day at SRS would be an accident at any other sites. Like Lawrence Berkeley, they actually do occurrence reports if they release, like, a millicurie. Here a millicurie is just nothing.

The non-rad toxins, as I addressed before, SRS currently is permitted to release 253 toxic air pollutants. Approximately 180 of these are permitted only at the consolidated incinerator facility. There's mention of the consolidated incinerator facility in here, but it's not operating right now.

If it was to operate, the air emissions out there would be much, much higher than as what's been reported. And until the decision is made on that, you need to address that, because then the current impacts at SRS are higher than what is being said.

Why MOX? This is a political issue. This is a political decision here. The sole justification for this project is the U.S.-Russian agreement. The NRC did fail to address the status of the agreement. And as we know, as we speak, George Bush is antagonizing Russia by accusing them of providing military aid to Iraq, and Russia is accusing us of many other things. Vladimir Putin is a tyrant. He's just another communist, tyrant, authoritarian, bad person who cannot be trusted. Things are going downhill. And to move forward on this project without -- while pretending that things are just steady and we're getting along with Russia is crazy. Russia's Minatom is described as the last -- as the stronghold of the last regime, the most conservative elements within Russian society. Russian people despise Minatom. 80% of them generally vote against new nuclear projects. Minatom is an autonomous rogue agency that hopes to export plutonium fuel if they get an infrastructure to build it. And their trading

partners are Iran, Pakistan, generally the ones that are on our export control list.

MR. CAMERON: Don, could you sum up for us?

MR. MONIAK: Yes.

The final issue is that I asked about the foreign ownership and control and influence. And this is a French project. This project primarily benefits the French government at this point. Now, whether that's right or wrong is irrelevant. The French -- if anybody is to do the MOX, the best person for it's -- best company for it is Cogema, because we certainly don't want BNFL to do it with their falsified quality assurance data and an inability to get an plant license there.

However, France is now on our enemy list, essentially. We're boycotting French kissing, French fries, everything but French nuclear fuel. And this is controlled by them. I don't know how they arrived at the conclusion that this was not a French-run operation. Chairman Richard Meserve of the Nuclear Regulatory Commission, a year-and-a-half ago, was lobbying Dick Cheney and the Congress to remove foreign ownership and control rules, weaken them and lessen them. This is in a letter he wrote. This is

before the world started to change.

The Atoms for Peace is the biggest casualty of this war in terms of political situation. If the UN is irrelevant, then the IAEA is irrelevant, then the NRC is irrelevant when it comes to this project. Because this project is an international verification and inspection project. It's not all about making power. And if you don't address the non-proliferation impacts and say to the Congress, as an independent agency, things have changed. DOE's analysis might have been okay. Then you're not doing your job. You have a responsibility just as a government employee to do this.

Thank you.

MR. CAMERON: All right. Thank you.

[Applause.]

MR. CAMERON: Ed Presnell.

MR. PRESNELL: Thank you.

My name is Ed Presnell, and I'm the President of the Augusta Metro Chamber of Commerce.

The Augusta Metro Chamber of Commerce, with member businesses from across our two-state community, supports the MOX project. Our chamber has followed the progress of the project since the beginning. And with the release of the Nuclear

Regulatory Commission's draft environmental impact statement stating minimal environmental impacts, we believe NRC should issue a license for construction, and eventually for operation of the MOX facility. Aside from being the right thing to do for the safety of our planet, support of this international effort will have the side effect of great economic benefit for our community.

We believe any concerns of safety have been answered. The safety of the process and the facility, itself, has been evaluated for years by many different groups. Every conclusion is the same. The MOX facility can be constructed and operated safely with minimal impacts.

With the question of safety satisfied, we now hope that our citizens can now recognize the economic boost the MOX project will have in the regional economy. When focusing on some of the numbers listed in the draft EIS for the construction and operation of the MOX facility and its associated facilities, the pit disassembly and storage facility and the waste solidification building, it's easy to see the positive impact.

For example, in the peak year of construction, 1,820 workers will be required for the

proposed action. On average, 1,000 jobs will be created for the proposed facility. During operations, 1,260 employees will be required each year. Income for workers during construction will be $350 million. Income during operations will be over $600 million. The proposed facilities will produce approximately $110 million in tax revenues from state income and sales tax. And finally, the proposed facilities will produce $1,850 million for gross regional product.

The Central Savannah River Area will be proud to be home for the mission to reduce weapons plutonium. This project is one of great importance to the security of the world. That reason alone should be enough to see this MOX succeed. But it is also positively impacts (sic) the CSRA in more ways than expected. It shows that by doing the right thing and supporting our country, our citizens will receive benefits they never expected.

The Augusto Metro Chamber supports the licensure of the MOX facility, and looks forward to both the global safety and local prosperity that it will create. Working together, the Central Savannah River Area and the Department of Energy are making the world a better place.

Thank you very much.

MR. CAMERON: And thank you, Mr. Presnell.

Is Richard -- is there a Richard Canty?

All right, Reverend Walker. And after Reverend Walker, Mary Kelly.

MR. WALKER: Good evening. My name is David Walker. I am President of the Aiken Branch of the NAACP, and I'm the Regional Coordinator for Region 2 of the NAACP which include the branch in North Augusta, Wagener, Salley, Edgefield, and Saluda.

I am here tonight to state that the NAACP still fully support the MOX facility at Savannah River Site. After seeing the draft environmental impact statement released by NRC, I've noted a few things. One is that in their report the NRC has stated that they would most likely issue a construction license to DCS. I think that NRC feels that they are doing this because they have some degree of confidence in DCS.

While we continue to support the MOX facility, we are awaiting the corrected EIS statement from NRC to compare that statement with the statement from DOE and from DCS. We feel that our support is necessary because one of the economic impact that it will have in this area. While there are some concerns regarding the environmental justice portion of the EIS statement, we will review all three EIS statements and

submit a written report prior to the deadline.

But we come tonight to say that we unequivocally -- the Aiken Branch NAACP supports the MOX facility. The MOX plant should come to SRS and DOE, and we are expecting DOE, SRS, and DCS to keep its citizen (sic) updated on the plant. Before I take my seat, I am making one request on behalf of the Aiken Branch NAACP. In the past all of these meetings have been held outside of the communities that will be mostly affected should an accident occur. I am requesting at this meeting that NRC, DOE, and DCS make a considered effort to hold a meeting in the African American community, the community that will most likely be affected. But at this time we still strongly support the MOX facility.

MR. CAMERON: Okay, thank you, Reverend Walker.

We're going to go next to Mary Kelly. And is there a -- is it Charlie Kleiss?

Okay, Mary Kelly, and then Charlie.

Let's see if we can make sure that this microphone works for you, Mary.

MS. KELLY: Thank you. Short people.

MR. CAMERON: Yeah. See if -- see how that is. Let's see if we can hear you.

MS. KELLY: Okay. My name is Mary Kelly, and I'm representing the League of Women Voters of South Carolina. Some of what I was going to say is repetitious, but I'm going to repeat anyway because I think it's just so extremely important.

We question the wisdom of concentrating so much plutonium on one site. SRS has to be the world's most inviting terrorist target, even without the added plutonium. And as the old saying goes, "Never put all your eggs in one basket." Having such -- so much plutonium in one place also increases the prospects of a criticality accident.

We find it difficult to understand how you can justify not including considerations about terrorist acts or criticality accidents in this document. The whole issue of homeland security hasn't been well handled, I -- I think most of us would agree. The public needs to know about the possibilities of such accidents, and be given information that will empower them to do something to help themselves in such an event. There's a great deal of danger in ignorance.

In addition, should you be transporting plutonium and uranium around the country in a time of war and international hostility to the United States?

Some of that plutonium will be in the form of plutonium oxide powder, a highly reactive and flammable substance. Depleted uranium in the form of gaseous uranium hexafluoride, a nasty substance, will be transported probably from Ohio to a processing plant in Wilmington, North Carolina, where it will be solidified as uranium dioxide and then transported back to SRS.

There should be more discussion about the backgrounds of the entities composing DCSW, Duke Cogema Stone & Webster, from the standpoint of their financial stability and history, and their environmental and safety records. It is extremely troubling that one party to this consortium is Cogema, a French company, owner and operator of sites like La Hague that have bad environmental and safety records. It may not be possible to get adequate information about Cogema, since France is far less open than the United States about its nuclear operations.

Another point on the subject of health effects. It's really distressing that the study that was underway about the -- the Dosimetry construction project proceeded to a certain point. They had collected a lot of data, organized it and so forth, and then the money was not forthcoming to analyze that

data. That project should be completed and the information made available to all the people in this community and throughout South Carolina. It is most important.

The other -- another problem that I see in this DEIS is the weather discussion. You only discuss five years. It doesn't take into account some special South Carolina background. On a totally different kind of project in Columbia, we've been fighting against a big developer who wanted to put a development in a flood plane. Well, his information simply didn't go back far enough on the flooding that had taken place in the Columbia area. It took university people and interested people in the community who could remember or who had fathers and grandfathers who could remember the fact that there had been tremendous flooding in the Columbia area along the Congaree River.

The same thing is true with the possibility of the effects of hurricanes. Now, that all has by dismissed. But those of us who lived through Hurricane Hugo know that what happened there was that the hurricane came in just north of Charleston and followed the water courses up to Columbia; then went up the river, the Wateree River,

to Charlotte. Charlotte was heavily impacted by Hurricane Hugo. You really need to have a more expansive idea of what weather patterns have occurred in this area and in South Carolina.

You also seem to only be concerned about the impact on the health of citizens within a 50 to 60 mile radius. Well, if you have a major accident here, it will cover a far, far greater area than 60 miles. When Chernobyl -- the accident at Chernobyl occurred, people in Norway were affected. It just isn't true that you can consider such a limited area.

Another point has been brought out, and it's been about the Russian MOX program, which is not proceeding according to plan. Another factor involved, according to the *Global Security Newswire* that comes out from the -- well, it's the NTI, and I can't remember what that stands for. But, nevertheless, they're talking about the difficulties of adequately monitoring weapons of mass destruction, including nuclear, in Russia. It just doesn't seem that this program should be going ahead justified by what the Russians are going to do, until the world settles down a little more.

And I appreciate being able to make these comments, and I hope that will receive -- get to a

satisfactory resolution of this whole issue. But there are just these -- some of these very pertinent facts that are like elephants in the garden. They just aren't going to go away, and you really need to pay attention to them.

Thank you.

MR. CAMERON: Okay. Thank you, Mary.

Next we're going to hear from Mr. Charles Weiss, and then we're going to go to Tom Clements.

MR. WEISS: Thank you very much. Good evening. My name is Charlie Weiss, and I am President of the Greater Aiken Chamber of Commerce in Aiken, South Carolina. We represent approximately 730 businesses in the region. It equates also to roughly 30,000 employees who really depend on a sound and stable economy.

I am pleased to see that the NRC has taken into account the substantial economic benefits that the MOX project provide, and the plutonium disposition program in general will offer to our area. I'm also proud to be in a community that has the opportunity to contribute to such an important national mission. SRS and the local community have a long history of such contributions.

I am here this evening to convey that the

Greater Aiken Chamber supports -- support for the MOX project, for what it can do for our country, and what it will offer to our entire region.

In the draft EIS, the NRC says it does not see any significant health or environmental impacts, and that the risk to public health is, indeed, very small. With tighter, more stringent federal and state regulatory controls, environmental safety should not really even be considered a factor in deciding the location for the MOX project. It is vital we all remember that the economic boom of the '90s cannot be counted on to sustain the quality of life that each one of us have come to enjoy. MOX, ladies and gentlemen, is not a four-letter word. On the contrary, it equates to improved education, parks and recreation, health care, and other very important attributes that contribute to a well-balanced community.

I believe that NRC should make it their final decision to locate the MOX facility at the SRS, and that we, the citizens of the CSRA, should support this program of immense important for the continued safe of continued quality of life (sic) and economic growth.

Thank you for allowing me to speak to you

this evening. Very much appreciate it. Thank you.

MR. CAMERON: Thank you, Mr. Weiss.

Let's go to Mr. Tom Clements, now, and then we're going to go to Caroline Rivard.

MR. CLEMENTS: My name is Tom Clements, and I work for Green Peace International based in Washington, D.C., and I represent over two million of our members with offices in about 35 countries worldwide. And I'm a native to this area.

I just want to make some comments on the process. I'm going to submit some written comments about some accident scenarios and other issues, but I just want to hold my comments to a couple more of process and political points.

I found this draft EIS very confusing because it attempts to also present environmental data on two other facilities, in addition to the MOX plant; those being the pit disassembly and conversion facility, and the waste solidification building, which, to my knowledge, DOE has never stated or written publicly that that facility must be built. I've been trying to get answers from DOE about the facility, but so far there has been no response.

I'm also trying to find out if this document is also the environmental impact statement

for those other two facilities, and I have not heard the question answered here tonight if this document is going to serve as the EIS for two other major facilities that are going to cost a lot of money and could have substantial environmental impact. One of the facilities is covered in this document to a very minor degree. It was also covered in a 1999 EIS on the plutonium disposition program. But the waste solidification building, to my knowledge, DOE has never done any NEPA analysis on its own. I think there are going to be some legal questions raised under NEPA if this document is substantial enough to stand in for two other full environmental impact statements which must be prepared.

Also, I can't determine now that there's any legal basis for disposing of 34 metric tons in the MOX program, and that's what this document basically addresses. The department has never shifted the plutonium that's being shipped from Rocky Flats from long-term storage into the MOX program. We've been waiting many, many months for a supplement analysis to come out on that. We feel it should be -- that they should prepare a supplemental EIS. So the program right now only has about 27 metric tons in it. With a wave of the pen, they could transfer the plutonium

into this MOX program. But we want to know how much plutonium is coming from Rocky Flats, what the impurities are in that plutonium, how some of it's going to be disposed of if it's not going to be disposed of as MOX. Rocky Flats has -- has clarified that some of this is going to go to Whip. But we don't know exactly what's going to happen to the plutonium that's being shipped from Rocky Flats.

Just a couple more things, one related to cost. The cost information presented in the document is very confused and vague. They -- it gives a -- an overall cost to the MOX program of $3.8 billion, I believe. But it doesn't break down this cost into research and development, construction cost, operation cost. There's a little discussion on the decommissioning cost which gives a range. But the people who wrote the document need to go back and present very clearly what these costs are, particularly given the budget crisis in this country right now and the poor economy, and that $75 billion was just requested as a down payment on the war in Iraq. The fact the DOE is trying to get $415 million in fiscal year 2004 is going to draw some attention. The budget is going to be very tight. The $650 million requested for the overall program is going to

get some scrutiny.

We also believe that because of the problems in the budget and the problems that have -- some of which have been pointed out with Russia, that this money that's going to building the MOX plant in the United States and Russia could be more efficiently spent in protecting and securing nuclear materials in Russia. There's a dirth of funds going into the program to make sure that all the nuclear materials in Russia are secured, and there's no need to rush into building a MOX plant now---which we're opposed to---in Russia unless the nuclear materials have been secured. And I think that that's going to be something that Congress is going to be watching very closely.

I'll submit the rest of my comments in writing. Thank you.

MR. CAMERON: Okay, thank you very much, Tom.

Caroline Betsy Rivard, and then we're going to go to Brendolyn Jenkins, and then Dave Cowfer.

MS. RIVARD: Good evening. Two weeks ago tonight I was actually in Hiroshima and I visited the peace museum for the first time. And I was startled to see that on a tableau that's there, part of the

museum is a list, half of it's in Japanese and half of it's in English, listing accidents that have happened since the dropping of the bombs on Hiroshima and Nagasaki. And there's only like 21 items listed, and one of the items mentioned SRS, which I was surprised about. And it says that in 28 years -- they have a date on it, 1988. September 30th, 1988. In 28 years, 30 major accidents at the Savannah River nuclear weapons plant in the United States. I'm not sure where they -- what -- you know, what information it says, but it certainly sent a chill up my spine.

I disagree with the DEIS, because the possibility of accidents was not adequately addressed. One of the related documents mentioned in the DEIS is the -- this final EIS from the Yucca Mountain -- the geological repository. And in here they managed to actually consider this terrorist possibility, and in -- it says, "In response to public comments, and to provide further information about accident risk, DOE analyzed an accident scenario in which a large commercial jet aircraft would crash into the repository facilities.

Now, you know, kind of raised the question in my mind, reading the DEIS, what -- you know, what probability would they have considered a plane

crashing into the Twin Towers, or two plane crashes into the Twin Towers. Is that like highly unlikely? Not predictable? Not considered? But, anyway, it did happen. So just wanted to consider that. It says, "If the accident occurred, the estimated consequences would include a dose of 4.5 rem to the maximally exposed offsite individual and a corresponding likelihood of .0023 that this individual would incur a fatal cancer.

Anyway, my point is that they were able to consider that, and I don't understand why -- their quote is that -- how is it? Will not address -- the EIS will not address impacts of terrorism because these impacts are not considered to be reasonably foreseeable as a result of proposed action -- of the proposed action of delivering 34 metric tons of weapons grade plutonium to the SRS plant and processing it. I -- I think that there's bad reasoning here. Is not the transportation, storage, and processing of 34 metric tons of plutonium reasonably foreseeable -- a reasonably foreseeable target for terrorism?

And I also disagree with the DEIS because it does not consider the immobilization alternative. And if the -- if the object is the disposition of

weapons grade plutonium, immobilization needs to be considered. Russia's concerns don't really seem to be an adequate reason to not do it. And I also think that adverse economic effects -- I know that everybody is talking about the wonderful economic effects of building and having this MOX plant. I think we need to consider the adverse economic effects of a significant accident on the community.

Thank you very much.

MR. CAMERON: And thank you, Betsy.

Brendolyn, and then David -- Dave Cowfer.

MS. JENKINS: Good evening. And I thank you for this opportunity to speak regarding the draft EIS.

In an -- in an economy that can be described in my community at best as being depressed, I stand to support the growth and development of the economy of the community. This project can represent future jobs, professions, and careers for the youth of my community. This project can represent economic stability to the CSRA. This project can also represent the continuation of missions at the SRS.

But, comma, however, although I am in favor of all of these positive aspects, I have grave concern over the environmental impact portion of the

draft EIS. Although it's been stated that NRC miscalculated their figures, and that an event is highly unlikely and improbable, there may have been a number of inadequacies found that causes even more concern to me about the concreteness of the data, and if it is likely to change again.

I'm also deeply concerned because we as a community, a nation, and now an entire world live now in the land of "what if." We never thought that a space shuttle would explode on liftoff, and we certainly never thought that one would disintegrate upon reentry. I never thought, after having lived in New York a number of years, that the magnificent Twin Towers would be felled, or that the icon of national security and defense would be attacked, or even that, on the other Monday evening, we would have an earthquake in Aiken. But we live now in the land of "what if." And although we can talk all day long about wind patterns and wind shifts, we still remain when it settles, it settles, wherever it settles, in a community of disenfranchised, poor, and minority.

One of the youth at a meeting the other evening pointed out to me, when it was talked about the wind shifts and wind patterns, that we also live on a spinning ball called earth. We are called to

think critically about putting projects over people, and jobs over lives. I'm deeply disturbed that so much of the time and effort that my organization has spent was challenging the DOE and Westinghouse Savannah River Company about this issue, when both the NRC and Duke-Cogema should have been more forthcoming in their roles that were to be played.

I, as well as many of my members of my community and the four or five members of the SRS Alliance that was present at a meeting for the first time ever in a disenfranchised community in Aiken, we're very appreciative for Tim Harris attending the meeting last week with members of that impacted community that is spoken about in that draft EIS. We are also, however, quite disenchanted, and perhaps even insulted, that Duke-Cogema refused to meet with members of the SRS Alliance or, instead -- or even attend that meeting. But, instead, to go hundreds of miles last evening and be present---although not vocal---in Savannah, and present this evening, when the community that is spoken about in the environmental justice portion is not even the community in the faces of those of you that are present this evening.

So I don't want to be seem as -- seeming

as unpatriotic for the questions that I raise that call us to be critical prophets in a time of "what if." I support the efforts of -- of the community, of this project, and of the SRS. You've been very good corporate neighbors that have empowered and impacted the communities around my community and the families of which I serve. But I also am called to critically think and critically look at any issue and any impact that would adversely affect the people that I serve.

Thank you.

MR. CAMERON: Thank you very much, Brendolyn.

Dave? And the next three speakers are going to be Glenn Carroll, Ed Arnold, and Ernie Chaput.

And this is Mr. Cowfer.

MR. COWFER: Yes, Dave Cowfer. I chair the Savannah River Site Retiree Association. I would like to say, first of all, that I and the association I represent strongly support the MOX facility.

My background, my 40 years in industry, I've been retired three years now. I have worked three-fourths of that under the jurisdiction or actually the regulation of the NRC, and I'm very confident the NRC will do a job -- a good job, an

excellent job on this project, both in the authorization of the construction and operation, and the regulation of the facility once it goes into operation.

I believe that the MOX facility can be constructed and operated safely. But I've got a concern about the EIS I'd like to -- some concerns I'd like to mention. Having reviewed the EIS and talked to some independent -- folks independent of the EIS development, I would like to say or make the concern, certainly, that the EIS is very conservative, and it makes some assumptions that I think are incredible. Particularly, and most particularly, on the worst case scenario.

I'm concerned that a perception of this kind of evaluation generates in the public eye -- that this kind of evaluation generates in the public eye with respect to perceive dangers at the facility are inflated. I think the NRC's postulating an accident that would breach at least two levels or more of containment, site boundary monitors, and go undetected for a year is just not -- not plausible. The scenario disregards the facility engineering safety features and operating procedures mandated by federal regulations that would prevent this sort of scenario

from even occurring. I've worked at SRS, and I can tell you the redundancy and certainly the safety basis for this facility, like others out there, would -- would bear out the fact that this is not a -- a credible scenario.

Over the years we've seen opponents of nuclear technology overstate the risks associated with the technology, and certainly we know that the NRC is neither a proponent or a proponent, but they're an objective regulator. I would expect the NRC to be even-handed and not overly -- be overly dramatic in the assessments of that facility. Even if they acknowledge that the assumptions they used are conservative, and if they acknowledge that the -- their evaluation does not give credit for protection that we know will be in place to prevent this accident scenario from happening, the statements gets lost in the cloudiness of what's generated in numbers---we've heard a lot of that discussion tonight---that fall out of these conservative evaluations. So I would hope the NRC heeds this concern and would insure that their final analysis portrays the risks associated with this program in a proper context.

Thank you.

MR. CAMERON: Thank you very much, Mr.

Cowfer.

Glenn Carroll, and then Ed Arnold and Ernie Chaput.

MS. CARROLL: Hello. My name is Glenn Carroll. I represent Georgians Against Nuclear Energy. We are intervening in opposition to construction authorization for the MOX facility, so we've been studying it pretty hard.

I'm carrying this image tonight because it's a Native American thunderbird, but it sure looks like a nuclear waste symbol; doesn't it? And I just think -- I put this out here and share it because I really believe that we can finish this business we started. That we can finish with the nuclear genie which we've let out of the bottle.

Oh, could I ask you to put Slide 6 up. Thank you.

One of the things I want to say is we have something in common. This is our plutonium. If you have ever paid federal taxes, you bought this plutonium. You bought this facility, Savannah River Site, and you're buying whatever we do with this plutonium.

I want to celebrate that we are arguing about what to do with weapons grade plutonium. Now,

this is a really good place to be. It's progress.

I request an additional meeting. I didn't quite follow what happened with the revised data you furnished us tonight, but it sounds like we just really could use something -- what you put out next week, and we could really use to review it, and we could really use a public forum to discuss it, because this document is vast, and I really wonder what individual knows everything that's in here. And it's really important. And so I think we really benefit from having a public meeting to hear from each other about it. And I think the minimum is to come to this community, which is going to be the most affected.

Okay, I'm sorry, this gets tiresome. I say this every time we come out. There's a basic problem with what we're doing with this EIS process. Can I have your walk-around-with-it mic so that I can use the slides?

MR. CAMERON: Are you going to give it back?

MS. CARROLL: Did you hear about that? You weren't here. I was beating up DOE that night.

Okay. What we have here -- where do we have it? Well, it was kind of an interesting layout. Okay, we're not even discussing a license. Let's be

clear on that. We're discussing construction authorization. This isn't even defined in NRC regulations, so we're pretty much making it up as we go, which sort of leaves it open to challenge. We'll have to see what happens with that.

So what you've got here, what we're talking about here is a construction authorization request. We want to consider whether to construct this facility. Now, usually when you consider whether you're going to construct a facility that's up to something like -- Don Moniak said 360,000 square feet, that's going to process is it 27 tons or is it 34 tons? I mean, that's another interesting point. There isn't even officially a mandate to consider that kind of plutonium. It hasn't been put in the MOX program yet; right? Okay, so that's interesting.

And I heard a man from DOE say something interesting tonight which is, well, you know, the public out here, the people that are litigating this have a record we have to refer to. We have to cite it, you know, and we're beating each other up with our citations out there. But you're saying, "Oh, well, we kind of got the impression, talking to the Russians, that they really don't like immobilization." I mean, put it on paper. We're the public.

And I want to tell you something else. This is our document. This is for us. Now, I love Dave, I love Tim, I love Chip, I like John Hull -- I love John Hull, I like that man over there, Peter. But this is kind of hard to read. Sorry. And I have a basic problem. I mean, one of the main issues GANE is interested in here is the waste issue. And it has been characterized differently in every single one of these really hard to use -- and I want to say this compares very favorably with the SBB EIS, which is like...

MR. HARRIS: Do you like it more or less, Glenn?

MS. CARROLL: I like it more. But, yes, please convert your waste to gallons. It would be helpful if you'd just use the same table that DCS used unless, you know, you need to differ from it. It would just make it a whole lot easier, because it almost looks like maybe something's being hidden on this waste issue, the way the language keeps changing that we're talking about. Okay.

Trying to figure this out. So we got a construction request. This is what we're talking about. And this EIS is going along with this construction request. Now, you notice this arrow

here, this is when this starts. Maybe the layout would be clearer if this box was over here. Okay, now, it says in the EIS that they might give a license, they expect to give a license, unless compelling safety issues would suggest otherwise.

But look at this. We're done. We are done. This starts. And this is the main event. I'm here to tell you. This is where the plutonium is. We are not talking about plutonium in this construction thing. We're planning to add the plutonium to the game here. But we're finalizing this EIS.

Now, there's some promise, but it doesn't look binding enough. That's what bothers us. I mean, you have acknowledged this and you have said, "We'll capture it." But you're not bound to. That bugs us. We have a law. We had a hard time getting this law. You know, this little public law, this *National Environmental Policy Act* that generates a document like this for us.

So here you are, you're finishing the safety analysis. And let me tell you, I think it's pretty good. I actually thought the SER finished here, and it was news to me. Here I am litigating plutonium for four years, and I just figured out that there's going to be an operation SER. I think that's

really great. But, I'm sorry, your only real solution here, you can either do another EIS or you can extend the EIS. But you cannot construct this facility until you've got this -- until you've got this review and you've done the EIS on it. That's how we're reading NEPA. And so I've clued you in.

MR. CAMERON: I wish I could be as dramatic as you are with this thing. And, Glenn, I got to -- you know, if you can just...

MS. CARROLL: Hurry up?

MR. CAMERON: Yeah, because we -- we have a lot of people who want to -- want to speak, too.

MS. CARROLL: Okay, the next thing we'd like to talk about, then, and I'll touch on two topics: immobilization and waste.

Your reason for not reviewing immobilization was not accurate. And I actually think you might have been given a bum steer from the DOE in some conversations I had tonight. But Russia declined to immobilization itself, but accepts the United States immobilizing. NEPA requires an affirmative alternative to be analyzed if there's a reasonable one available. And immobilization is reasonable because, unlike storage, it would address the proliferation concerns. And it's positive because, unlike storage,

it provides jobs. And, unlike storage, and certainly unlike MOX, would not generate waste, and would actually employ waste.

And I hear what you say about the vitrification problems. That vitrification facility, that's DOE's best success story. And I just really believe we can solve that problem with solvent extraction and ion exchange. That's what we'd like. So we really are going to make a case that immobilization should be analyzed, that NEPA requires it.

On the waste, we got a problem with the fact that we haven't heard anything from DOE yet on this waste solidification building. There's no budgets. And so we really think the analysis needs to reflect any possible -- you know, a possible outcome that a MOX facility is up and operating and the waste solidification building -- what...

MR. CAMERON: Okay, Glenn, is that -- is that it?

MS. CARROLL: Does it for me.

MR. CAMERON: Thank you very much.

MS. CARROLL: Thank you. Thank you.

MR. CAMERON: Ed Arnold?

MS. CARROLL: We look forward to seeing

you again when you come back.

MR. HARRIS: Okay, thank you, Glenn.

MR. CAMERON: Ed Arnold and Ernie Chaput. And I apologize for obviously running late. And we'll stay and hear everybody. But I apologize for -- for going over.

Ed?

MR. ARNOLD: Thank you for the opportunity to address our understanding, which I have to say is -- is limited and confused.

My name is Ed Arnold, and I'm the Director of the local group of Physicians for Social Responsibility. We have over 500 physician and health care professional members and supporters in Georgia and Alabama. I come here from Atlanta, but we have members in the Augusta area, and downstream we have members in Savannah, as well.

This reiterates something I've said in the past at these meetings. I would hope that -- I was pleased to hear that you considered this a public health document. And I would encourage you to think about your visit to your physician. One thing that we always like to do is have enough time with our physician. And we're being told tonight that we don't really have enough time to discuss this fully. So I

would urge the NRC to arrange for appropriate public discussion that won't rush us.

Full disclosure is something that you want. Your physician wants it from you; you want it from your physician. This is really confusing. I don't feel as though I have full disclosure from this document. This is -- we're trying to understand the risks, and frankly I don't -- I -- I won't say it again.

Let me read something directly from the document that was alluded to a couple of times earlier this evening, just this one example. I'm going to submit more comments in writing, but it's one example.

> "The EIS will not address the impacts of terrorism because these impacts are not considered to be reasonably foreseeable as a result of the proposed action."

Well, how about a range of what might be foreseeable. How about a worst case scenario, which I think most public work is -- is required to provide on a statement like that. Now, for me it doesn't cut it. We were told tonight something more about some kind of a safety evaluation that will be provided next month. Well, what's the public procedure connected with that? And is it part of this? Is it separate

from this? Will there be public participation once that's released? Will we have an opportunity to discuss it with you all? I -- these are -- this is a big mystery to me.

So as someone who works regularly -- I'm not a physician myself, but I work regularly with public health officials and physicians, this document doesn't look like any medical report I've ever read. And I encourage that you make an attempt to step up the standard.

MR. CAMERON: Thank you very much, Ed.

Mr. Chaput? And then we have two more flights of three, I think. Robert Guild, Peggy Roche, and Darrel Watson, next trio.

MR. CHAPUT: Good evening, and thank you for the opportunity to provide comments on the draft EIS work, the mixed oxide fuel fabrication facility. I'm Earnest Chaput, and I am the Manager of Special Projects for the Economic Development Partnership of Aiken and Edgefield Counties in South Carolina.

Construction and operation of the mixed oxide fuel fabrication facility is an important part of our nation's international non-proliferation programs. It is important we do all possible to make surplus United States and Russia nuclear materials

unusual for future use in nuclear weapons. We believe the United States should continue to demonstrate moral leadership by expeditiously preparing to make these materials unsuitable for use in modern nuclear weapons. We are pleased that the preliminary conclusion of the NRC staff that the overall benefits of the MOX facility outweighs disadvantages. Unless safety issues mandate otherwise, the action called for is issuance of the proposed license. We agree the proposed facility can be operated safely, and urge the NRC to issue the construction authorization request in a timely manner.

We've reviewed the draft EIS, and offer three comments which result in additional support for your primarily conclusion. First, the safety and environmental risks associated with the no-action alternative have been significantly understated. These are comments that we have previously provided to DOE in their -- in their EIS statements on the surplus plutonium disposition. The no-action alternative assumes that DOE's surplus plutonium would remain in storage at seven DOE sites. The DEIS does not state the period of storage, and it appears the impacts that are included therein are near-term and based on maintaining the status quo. We believe current

methods of storage are only valid for limited and finite lifetimes. Storage without subsequent actions is not realistic for time frames of 100 years plus. At some time in the future, action will be required to either repackage or to disposition the stored materials. The no-action alternative should assess the incremental added risk resulting from actions to periodically reprocess and repackage materials in long-term storage; and secondly, actions to eventually remove the materials from storage and prepare them for disposition. You can't babysit this stuff forever. Something's going to have to be done with it sooner or later.

Second comment. The risk to offsite population in the hypothetical accident is significantly overstated. Again, I don't have the benefit of the revised analysis, but my sense, from looking at the numbers, has not significantly changed as far as the -- the assumptions made.

In analyzing the impact to offsite population from a hypothetical tritium release from the PDCF, the draft EIS assumes and calculates a dose by ingestion during a one-year post-accident period. The scenario is simply not possible. An assumption that the South Carolina Department of Health and

Environmental Control and that the Georgia Environmental Protection Division would ignore contamination -- ignore contamination of agricultural products for one year is incredulous, and it's an insult to their training, demonstrated performance, and professional status. The impossible assumption must be eliminated and the analysis revised.

Third, the DEIS places unwarranted emphasis on impacts associated solely with the PDCF facility. And it's also sometimes called connected actions. I think that's what you called it in your -- in your presentations. The PDCF is not necessarily solely required to support the MOX facility. The PDCF has a broad capability support of a variety of storage and disposition options for surplus nuclear weapons pits. For example, the PDCF was to have prepared the plutonium. That was included in the cancelled plutonium immobilization project. There has also been discussion that PDCF may convert surplus weapon plutonium components currently being stored as pits to oxide for long-term storage. By coupling MOX and PDCF facilities in a draft EIS, NRC creates the implication that impacts from PDCF will not occur if the MOX construction authorization is denied. That is not the case. PDCF and MOX are two separate actions. And the

draft EIS should only analyze -- draft EIS for MOX should only analyze and include the combined accidents which result from the unique requirements associated to fabricate MOX fuel. Disassembly of the pit is not required solely to fabricate MOX fuel, and that's the primary impact that comes out of PDCF.

DOE has previously prepared an environmental impact statement for the PDCF---that was a question that was asked earlier---with a finding that the facility provides adequate protection to the public and the environment. NRC should not subject the PDCF facility to NEPA -- to NEPA double jeopardy.

Thank you for the opportunity to provide comments.

MR. CAMERON: Thank you very much, Ernie.

And our next speaker is Mr. Robert Guild. And then we'll go to Peggy Roche and Darrell Watson.

Mr. Guild?

MR. GUILD: Good evening. My name is Robert Guild. I'm from Columbia, South Carolina. I'm an environmental lawyer by training, but I appear as a member of the Executive Committee of the South Carolina Chapter of the Sierra Club to speak in opposition to the proposed licensing of the MOX fuel fabrication facility and allied facilities included in

this draft environmental impact statement.

The South Carolina Sierra Club has over 5,000 members in South Carolina. As you know, we're a national conservation organization with over 100 years of history of advocating for the protection of our environment. Our governing body, the executive committee, passed by unanimous resolution last year a statement opposing the mixed oxide fuel fabrication facility as an element in the management of our surplus weapons plutonium, and alternatively supported the pursuit of the now apparently abandoned immobilization program as the prudent and preferable alternative to more safely and appropriately manage this surplus weapons material.

We are supportive of the objective of managing this weapons material and converting it into a non-weapons accessible form, but believe the environmentally preferable as well as the security preferable alternative of immobilization is inappropriately not properly assessed in this draft environmental impact statement.

My view, NEPA does not -- simply does not permit the Nuclear Regulatory Commission to assume the unavailability of immobilization as is apparently done in order to avoid assessing the cost of the

immobilization alternative. I won't repeat the I think eloquent observations, quoting from the actual language of the Russian-United States plutonium disposition agreement, which obviously is contrary to the representations made by the authors of this DEIS with respect to the binding character of the -- of the MOX alternative. But, suffice it to say, that regardless, NEPA requires you to assess the costs of that alternative.

DOE, even if they are the decision-maker, deserves, and the American public demands a full assessment by the Nuclear Regulatory Commission of the environmental costs and benefits of this action, as well as available alternatives. It's fine for you to say that an alternative has been rejected by your sister agency. It's simply not adequate for you to fail to assess that alternative so that the public will understand that it is environmentally preferable. And we urge you to do that.

Several other comments. We like to echo, without repeating, the written comments submitted by the Nuclear Information Resource Service which submitted some useful comments on procedural issues, particularly with respect to the what appear to be segmentation problems with regard to the way the NRC

has chosen to evaluate this particular action; that is, failing to evaluate the necessary connected action such as the effects of accident sequences at the McGuire and Catawba reactors which will be using the MOX fuel.

It simply seems incredible to say that you used a generic reactor and assumed the consequences of accidents in generic reactors, when I reviewed studies that indicate that because of the proximity of the high population concentration of Charlotte, North Carolina, to the reactors, out of all in the country that we've chosen to use as the MOX fuel facilities. Early cancer fatalities from -- from -- early fatalities and latent cancer fatalities from beyond design-based accidents at those very reactors exceeded virtually every other reactor site in the country because of the population concentration at Charlotte. And why you haven't acknowledged that in this -- in this review is beyond me.

Let me touch briefly on a couple of points. We believe fundamentally at the Sierra Club that the Savannah River Site should be required to honor its commitment to the people of South Carolina to focus principally on its environmental restoration mission. In conducting the 50-year mission of weapons

production at the Savannah River Site, we had turned the Savannah River Site into literally a national sacrifice area. The number of -- of Super Fund sites, the number of high level and low level rad waste contamination sites are legion at the facility. The most optimistic version of DOE's views say it'll be until the year 2025 before we clean up the ground water contamination at a number of these sites. And yet this action contemplates a renewed waste production mission at this facility before we have completed a satisfactory plan for environmental restoration of the damage we've already done. That is simply unacceptable.

With respect to environmental justice, the NRC has appropriately complied with the executive order by at least analyzing the disproportionate impacts that the credible accident scenarios at this proposed facility will have on communities of color and of low income. That really reflects the dynamic that really has been at work at the Savannah River Site from its inception; and that is that the people in this area of South Carolina represent the path of least resistance with respect to doing what no one else in the country finds environmentally acceptable. Is it a surprise that Rocky Flats and its neighbors no

longer will tolerate being responsible for managing weapons plutonium, and instead are sending it to the Savannah River Site in South Carolina?

So you've acknowledged the fact that if there is an accident, disproportionate numbers of African Americans and poor people will die. But you've been glib in characterizing the numbers which you claim to be precise about in other regards. And I would strongly urge you, in your DEIS at Section 4.3.7.3.3, to not simply give us a map at in grainy terms shows where those concentrations of predominantly African American, low income populations are. But to give us an actual table, as you do in some of the other places when the data supports your action, and tell us how many black people and poor people will die in that accident scenario that you assume. Tell us where they live. Tell us which census blocks they live in, because you know that data. That's the data source that generated the maps. Let's give us the numbers so that the public can transparently see what cost they're being asked to bear.

And finally, as I tried to suggest in a question, it's simply unacceptable for you to tell us in this document, which purports to assess the costs

and benefits of a proposed major federal action, and assures us that risks are small and acceptable, that you refuse to put a number on the probability of the accident scenarios that you say will not happen. You just refuse to tell us what that number is.

Now, I know EPA, when it says we're going to release dioxin into the environment from an incinerator, will tell you that the chances of a death from cancer are, you know, 1 in 100,000 or 1 in 1,000,000. And they'll make an explicit judgement that it's acceptable to expose the population to that level of risk. We should expect no less of the Nuclear Regulatory Commission when they tell us that the risk of an accident at this facility is acceptable, without giving us a value that represents that acceptable risk.

And the last point I'd like to make with regard to environmental justice impacts is you acknowledge that more black people and poor people are going to be down wind, essentially, from that plume, from that accident location in the plume exposure pathway. And yet you fail to acknowledge what seems obvious to me, and that is poor people are largely going to be far more dependent on subsistence agriculture and dairy product consumption, the

dominant ingestion pathways that you assume in your cancer risk scenarios, without telling us that in the EIS. I mean, the fact of the matter is it's very likely that poor people will be the ones who will continue to consume the vegetables that they're growing in their garden or the dairy products that come from the cow that eats the grass that's exposed to the deposition of contaminants in the accident. And you should be explicit about what those enhanced risks are exposed -- that are -- that those -- that those populations, communities of color and low income, are -- are exposed to. One moment, I'll wrap up.

That's all. Thank you very much.

MR. CAMERON: Thank you. Thank you very much.

Our next speaker is -- is Peggy still -- Peggy? There's Peggy. And is it -- is it...

MS. ROCHE: Peggy Roche.

MR. CAMERON: ...Roche? All right.

MS. ROCHE: Thank you for allowing me to speak tonight. I'm down to just a few remarks. So one thing I'd like to address is the hearing process, itself. We ask for more hearings to be held so we wouldn't run this late. We'd ask for them to be -- I

mean, this is a lovely area with friendly people, but it's not the most centrally located area in the state. We'd ask for them to be held in Columbia and Charleston and other places around the state. And I think that it would be very advantageous. You would get a lot more input from the public. And that is supposedly what you're wanting.

One point that I want to make, and one of the charts in your EIS, it's on the East Coast, the air flows in a northeasterly direction. But on one of the charts---and I'm sorry, I don't have the page number but it is in there---all the air quality monitoring systems are located in the northwestern section of the Savannah River Site. So you would be gathering data from air not affected by the MOX facility.

Then I also made some -- on a couple of your charts I did your calculations with your formula for the latent cancer fatalities, and I won't -- in the interest of time, and I know other people are wanting to speak. I won't go by them line-by-line. But the numbers were mathematically astronomical in the difference between short-term and the one-year-later.

And I want to make mention of the fact

that a MOX fuel processing facility is actually a plutonium breeding facility. That when you -- when you are -- you're actually increasing the amount of plutonium you eventually end up with. Because as uranium that it's mixed with is irradiated by the plutonium, the irradiation of the mixture converts the uranium into plutonium; therefore giving you plutonium that you -- more plutonium than you started out with.

Recently there was a tremendous public and official outcry about moving six tons of plutonium into the State of South Carolina. Now you're talking about move 34 metric tons into the state, which is approximately 75,000 pounds of plutonium. Put some perspective on that, the bomb that was dropped on Nagasaki had approximately 20 pounds of plutonium. With today's refinery numbers, it would take less than 20 pounds to get more bomb for the buck. And we're talking about 75,000 pounds of plutonium being located in one site here in South Carolina, when it took less than 20 pounds to drop that bomb on Nagasaki.

I think more attention needs to be addressed to if there was an accident, how would you deal with it. Talked about a remote way. I don't understand how that would work if you had an explosion or you had a fire. Whatever remote facility was in --

you know, remote control, whatever, was in the facility, it's going to be fried when they had the -- and with plutonium being, you know, much hotter than uranium, it would be much worse than the Chernobyl incident. And the people that went in to shut down that reactor at Chernobyl knew that they would be incinerating themselves when they went in to do it. And so it would be -- it would not be possible to go into a MOX facility physically and do it. You'd be incinerated before you could get to it to shut down the reactor.

And any equipment that you had in there at the reactor, the reactor would be so hot that it would be -- we don't have anything that's capable of shutting it down. It would be incinerated. If there's an explosion or fire, then the reactor got so hot that it needed to be shut down, any equipment that we could put in there would be so hot that it wouldn't work. So I would like, you know, to have that issue addressed.

And the other thing is -- my last point is the language, the way the language is worded in this really bothers me. "Workers would be monitored as appropriate..." As appropriate to whom? "...to insure the radioactive doses are maintained at levels

as low as reasonably achievable. What is "reasonably achievable"? You know, a scientists idea of what is reasonably achievable? To me that leaves a lot of human beings as collateral damage.

Thank you.

MR. CAMERON: Thank you, Peggy.

And I know it's -- it's late. And perhaps we can answer some questions after we're done.

Did you want to say something quickly in summary, Mr. Robinson?

MR. ROBINSON: No, no, no, no.

MR. CAMERON: Okay. All right. Thank you very much.

Darrell Watson?

MR. WATSON: I just have a few quick comments. A lot of what I'm going to talk about has already been said, so I'm going to keep it short.

I've got four main issues with this. Number one is the transportation of the plutonium. According to your diagram here, 95% -- this is -- this is going to be Section 1-8, Figure 1.3. 95% of the surplus weapons grade plutonium in this country is located west of the Mississippi River. Now, to bring in 95% of the plutonium in this country all the way pretty much across the country to South Carolina I

think is a very, very bad idea, exposing that much plutonium to possible interception by exactly the entities you want to protect this plutonium from apparently in your MOX program, and that's terrorists and rogue states. I think that really needs to be considered. That's 34 metric tons of plutonium. That's almost 75,000 pounds to move across the country to our backyard, as it is.

Number two, I think terrorism really needs to be addressed in the draft EIA (sic). I think nowadays that's definitely to be something that you -- you'd be completely irresponsible not to include. That's a facet of our everyday life now, and that needs to be addressed. It's no excuse for not -- that not being addressed.

Third topic is, this is an experimental process. This has been done nowhere in the world. South Carolina is the test bed for this project. This has not been done in Russia, this has not been done in France. This has been done nowhere except in labs and experimental settings and controlled settings. So we're going to find out firsthand the consequences of possible side effects of this.

Also the very last comment I have is I'm fully opposed to Cogema being involved in this

project, given their track record in France. Let's see. Matter of fact, they have just a bad track record, especially at La Hague or La Hague (pronouncing), I guess is how you pronounce it, in France. To me it proves that they are an irresponsible company and they should not be involved in this project in any shape or form if this project does go forward. I think that needs to be addressed. There needs to be more transparency in the histories of the countries that are involved in this project.

And that's -- that's all I have. Thank you.

MR. CAMERON: Okay, thank you, Darrell.

We have four speakers, and if I -- I think I've gotten everybody. But if there's someone who I don't have on my list, please tell me. We're going to start with Jen Kato, then we have Tom Howell, Adele Kushner, and Joanne Steele. And I'm sorry if I mispronounced any names.

Jen Kato?

MS. KATO: I hope I didn't write my notes in the same invisible ink that I wrote my name on that list with.

MR. CAMERON: I hope not, either.

MS. KATO: Anyway, I'm Jen Kato, and I'm

a local. I'm with the Georgia Chapter Sierra Club. I represent the Executive Committee of the Georgia Chapter of the Sierra Club. And we represent 14,000 people in the State of Georgia; 45% Republican, 55% Democrat. And we have grave concerns about the MOX fuel fabrication facility. We would like to see this entire process canned, and would be more likely to support the immobilization alternative, although we'd just have to see what the figures were that would come out of that.

The cost benefit analysis does not include the cost of any accident scenarios for victim health recovery or clean up to public property. This must be corrected. The estimated public collective offsite health impacts for accidentally scenarios are only considered for one year after an accident, and only for the standard man. Any accident would not likely create a uniform offsite dispersion among the population limited to a 160 pound man with effects stopping at one year. The very use -- well, the use of FRG-13 does not consider gender, race, or age differences in response to radiation exposure, and the radiation involved is hazardous for 240,000 years plus, and their effects are cumulative. The DEIS must be corrected to reflect these concerns. Further, an

actual accident may cascade into several of the scenarios illustrated in the EIS, compounding health effects. And this must also be considered in the EIS.

And some sections in the back, human health risk states statistically no fatalities during normal operations will occur. Yet, according to your own figures, 50 people -- and these figures I -- I contest, but I don't have all of the -- I don't have all the information to corroborate them. But yet you say 50 people will die by latent cancer fatalities. And they -- these will only be standard men, of course, during the 20-year operating period.

Also any impact -- you state any impacts associated with the transportation of fresh MOX fuel, including impacts on property values, will be minimal. Did someone even do an Internet search on this topic? It doesn't seem like it was very seriously addressed at all in the EIS, whatsoever, as a cost. And it will be a cost.

This, as well as transport of plutonium, will affect populations throughout Georgia, including property values. This must be just seriously looked at and evaluated in the EIS. The DEIS has -- has insufficient detail regarding how these calculations were arrived at. This has been brought up by several

people. And I think Tim has done a great job trying to help me arrive at one portion of the calculation at the region of influence. This prevents corroboration of human health impacts figures which are important to a lot of people. For this reason, and because of the inclusion of the WSB and the PDCF, it makes a document very, very deficient and suspect, and we need to have additional and corrected data to evaluate this EIS and offer comments on it. The distribution of this additional data must be followed by a lengthened public comment period and public meetings. Let me see. Not -- not going to invisible ink.

Well, right now Savannah River Site is actually courting TRU waste from other sites which it hopes to process -- characterize, process, and package. The TRU waste generated by your mission will just accumulate there behind all that other, waiting to go to Whip. And right now there's a WIR (phonetic) lawsuit against -- that's halting tank closer at Savannah River Site. And when you're looking at 133,000 gallons of high level aqueous waste and what it -- actually 355,000 gallons of low level waste per year. If something like WIR persists, this -- this waste will also accumulate. And in general, the human health facts, the human health impacts have not been

evaluated with regard to waste in the EIS. And especially not in consideration of the variability of the handling of the waste at Savannah River Site.

I have sought to give comments that were not given by other people before, but I do want to stress that I am in -- we are -- the Sierra Club is in complete accord with very large concerns about terrorist activities and that they have not been evaluated at all with regard to any accident scenarios, latent cancer fatalities, costs in the EIS. This is a tremendous oversight. We need another EIS, we need another -- we need to lengthen comment period, and we need more meetings.

Thank you very much.

MR. CAMERON: Thank you, Jen.

Mr. Howell?

MR. HOWELL: My name is Tom Howell. I'm from Columbia.

I'm concerned about several issues. There are already millions of gallons of radioactive nuclear waste stored in this country. I understand that radioactive liquid waste is highly corrosive, and there have been problems with such wastes degrading their containment vessels. Liquid waste is projected to be produced when plutonium is polished in the MOX

process. Do we know how much liquid waste is anticipated? Do we know how long it will be necessary to store this waste? Do we know what the long-term costs will be for storing this waste?

I understand that U.S. reactors are not designed to handle MOX. I'm concerned about how U.S. reactors will be modified to handle MOX, and how those reactors will be monitored. Will there be independent auditing of such a monitoring system? If there might be problems with the reactors that use MOX, does it make sense to build a MOX processing facility? Shouldn't problems with the reactors be solved before a MOX processing facility is approved?

I am also concerned about how the MOX will be safeguarded to prevent theft or loss at all points in its processing, use, and storage. Radioactive material has gone astray in the past. Is there an inventory system capable of tracking all the plutonium involved? If so, is this inventory system capable of tracking the other radioactive materials involved, including all waste? Will there be independent auditing of such an inventory system?

Thank you.

MR. CAMERON: Thank you, Mr. Howell.

We have Adele Kushner.

MS. KUSHNER: Thank you. My name is Adele Kushner. I represent Action for a Clean Environment, which is based in Northeast Georgia. We have a few representatives here. And this is very short, and you've all been very patient.

People in this country expect to trust their government. After all, it is a democracy. Under other forms of government people know not to trust official government statements. Those governments could be telling lies.

In this case, the Nuclear Regulatory Commission is telling us that there is very little danger from exposing people to accidentally emissions produced by a MOX plant. Then it turns out that the draft EIS contains large computer errors, and that there would be far fewer than the estimated 400 deaths in a population living within 50 miles of the plant. And, anyhow, this was a minority, low-income community. And furthermore, the new data will not be available until after the public meetings. But trust us. We are your democratic government. Would we lie to you?

This reminds me of another campaign also concerning radioactive materials. Years ago the NRC told us that a little bit of radioactivity in our

cooking pots, our bicycles, our paperclips, our appliances would not hurt us one bit. The level of radioactivity would be so low, it would be, quote, "below regulatory concern," end quote. We found out there is no way you could tell how much radioactivity people would be exposed to once they were surrounded by such little bits, if the little bits were scattered around randomly. I once adopted a cat that the owner said was just a little tiny bit pregnant. That cat produced four good-sized kittens right on schedule.

It is hard to believe that the Savannah River Site, already the most radioactively polluted Department of Energy site, would even be considered for a process that can only produce more radioactive pollution. Especially when there is an alternative. Would you rather live and work near ancient tanks already leaking radioactive nitric acid attractive only to saboteurs and terrorists, or near glass logs in which nuclear waste is immobilized, out of reach for any reuse, providing safe jobs, leaving no mess behind? How about a real comparison of the pros and cons, NRC, before a decision is made on this DEIS.

Think about the perils of transporting plutonium across the country, then taking the MOX fuel to reactors, all of which subject to accidents and the

possibility of spreading radioactive stuff in city centers and people's backyards. Think of a weapons grade plutonium out there waiting to be grabbed. A conscientious examination of the facts might produce a decision that would restore some of our trust in our government. That is a conclusion devoutly to be wished.

Thank you for your patient.

MR. CAMERON: Thank you for those comments, Adele.

And is it Joanne -- is it Steed?

MS. STEELE: Steele.

MR. CAMERON: Steele. Sorry. I can't read writing.

MS. STEELE: I probably didn't write it well.

I'm also a member of Action for a Clean Environment in Northeast Georgia -- in Northeast Georgia. And I work on looking after some of the activities going on at the Oconee Nuclear Power plant which is also a Duke Energy facility. And what -- the phenomenon that is going on is that so many old plants that were only designed to go for 30 years of licensing, or 40 years, are now being relicensed for another 20 years. And they weren't -- really weren't

designed to go that long. And there've been problems, and there's been repairs of this part and that part of these plants.

So they've got old vessels starting to get new tops on them. And -- and the ways of monitoring these -- these facilities weren't -- weren't designed to look at 60 years of use, and surely weren't designed to look at MOX fuel being used in them. And so the whole MOX program is -- is dangerous to me. It just doesn't make sense. And when you consider that nuclear energy only provides 20% of the energy that we have in our country, and we're going to all of these risks of the unknown with this dangerous fuel, MOX fuel, and the whole development of MOX fuel is questionable, it just doesn't make any sense to me.

I'm a mother and I'm a grandmother, and I'm ashamed that our generation is -- and the generation before me is looking at this type of electricity production and the dangers of -- that it -- inherent dangers that it has, that it's leaving to my children and my grandchildren and to their children. And I'm just totally opposed to this. I think we have -- immobilization seems like the best of the worst situations that we've got with nuclear energy and messing with this stuff to begin with. And

so I'm opposed to the MOX fuel facility. I'm in better support of the immobilization plan. But I just think this is very irresponsible behavior for the past 50 years, and it's time for it to stop.

MR. CAMERON: Thank you, Joanne.

And real quickly, we have Mr. Charles Utley who is just going to share a brief moment with us.

MR. UTLEY: Good evening. I'm Charles Utley, and I'm from the (indiscernible) Improvement Committee. Also I work with (indiscernible) and with Reverend Jenkins out of Aiken.

I just -- I wanted to just say briefly that let us not forget those communities that are impacted, and that is those communities in -- and we've talked about them being socially, economically deprived. But -- and we talk about wind shifts. And -- and all of us know how the wind blows because that even the Bible tells you that, so if you're a good Bible student you would know which way it's going to blow.

However, I want to remind you that, irregardless of race, creed, or color, there's -- if there's a fallout, it doesn't care about any of the above. But what I do want you to -- not as an NRC or

regulatory commission, I don't want you to take what President Bush has said about affirmative action and apply it to these neighborhoods. And no matter -- I know Georgia and South Carolina are at the bottom of our scholastic aptitude tests. But these are human beings that we're talking about.

Thank you very much.

MR. CAMERON: Thank you, Mr. Utley.

There's at least one thing I think -- thank you all for your patience and your comments. I think the NRC got some great, very thoughtful, specific comments tonight.

One thing that we probably should just emphasize again, and I'm going to ask Lawrence to do that for us, is -- is that, even though terrorism isn't part of the EIS, can you tell us how that is factored in in our evaluation, and just close the meeting out for us, Lawrence?

MR. KOKAJKO: Okay. I'd like to -- to make several comments before I get to that, Chip.

First of all, we are not going to forget environmental justice. We are not going to forget it, and we will look into that.

A couple of comments. Fuel is accounted for, by the way, under a materials control and

accountability program. And there is monitoring at the facilities. And that's also part of our regulations.

MR. CAMERON: If you could just make sure you get that on the mic. I think it's -- it may be hard to hear you.

MR. KOKAJKO: Also the use of MOX fuel is generally considered acceptable. However, before they can even put a lead test assembly in, it has to be evaluated by both the licensee, who wants to do it, as well as us. And unless found to be acceptable by them and they submit that application to us for our approval, it does not happen.

Finally, there was two more items. One is the draft environmental impact statement for the -- is for MOX only. It is not for the PDCF or the WSB. That would have to be done separately. That would be another EIS. DOE would have to do another environmental report for that, and that would not -- since that is not regulated by the NRC, that would be under their authority.

And finally, the security concerns. I'd like to point out that security concerns are going to be considered in the safety review of the proposed facility. The safety review will consider all aspects

of safeguards, security, terrorist threats, vulnerability assessments. And that will be a determination made by the fuel cycle -- Fuel Cycle Safety and Safeguards Division at the NRC. And I think that's about it, Chip.

I would like to point out that Adrienne Lester, is she -- Adrienne. This meeting, by the way, would not have happened if it wasn't for the work of Adrienne Lester. She put on a dynamite effort to get everything and all the meeting rooms and the space here, and I'd like to -- to make a public acknowledgment for her help for the last month or so.

[Applause.]

MR. KOKAJKO: With that in mind, I have no further comments, Chip.

MR. CAMERON: I think we're -- we're adjourned, and thank you.

(Whereupon, the hearing was concluded at 10:50 p.m.)