PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENTS PUBLIC MEETING

HELD AT THE NORTH AUGUSTA COMMUNITY CENTER

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NORTH AUGUSTA, SOUTH CAROLINA

ON APRIL 30, 1996

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14 May 1996

Dear Recipient,

Enclosed are public hearing transcripts associated with the Draft Pantex Site-Wide Environmental Impact Statement (EIS). We will be continuing to send you transcripts from multiple sites as we receive them. Place them in your reading room with your Pantex DEIS.

If for whatever reason you have not received a copy of the DEIS, notify us and we will send you one.

Sincerely,

Rachael E. Pitts

Rachael E. Pitts
Librarian

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PUBLIC MEETING

HELD AT THE NORTH AUGUSTA COMMUNITY CENTER

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ON APRIL 30, 1996

ACCURATE REPORTING
P.O. Box 2567
Augusta, Georgia 30903-2567
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QUESTION AND ANSWER SESSION

- - - - -

MR. LAWSON: Thank you all for your presentations. Let me, because we've had maybe twenty or twenty-five people who have come in since I first spoke, let me just review a little bit of the agenda and how we proceed and some of the options that are available to us this morning.

First of all, my name is Barry Lawson. I'm a neutral facilitator. And we have two other facilitators here who will be helping during the day and the evening. And we have just heard presentations from representatives of the department in those three programs: Stockpile Stewardship and Pantex Site Wide, as well as Material Disposition. In a couple of minutes I'm going to ask for any clarifying questions that you may have about any of the presentations that were made this morning so that you can better understand, make sure that everything was clear. And then I'll have an opportunity -- provide an opportunity for anybody who would like to make a comment, a public comment at this point, they can do that before we take our first break.

Before we do take our break I just want to sort

of warn you or remind you that I will be asking you to give me some notion of where your principle interests lie. We have three options -- well, actually two options that are available to us this morning after we go into our break and come back.

One of those is for the whole group to stay together and for us to sequentially go through each of the three programs and spending whatever time is necessary to cover the issues that are important to you in each of those three programs starting with Stockpile Stewardship and going with Pantex and then going through Storage and Disposition.

The other option is that we have breakout rooms that have been established for more detailed discussions on all three of those programs. If we choose that latter, and you can help me make that choice, if we choose that latter option we'll have basically 40 to 45 minutes that you can spend in each session. And it will be obviously maybe a third or a quarter of the number of people in this room in each of those sessions at one time which could really increase the amount of discussion and dialogue that would take place in each of those issues and then you would be free to stay in that session that you were in or to move to another session on one of the other topics if you choose, let's say, every 40 or 45 minutes.

So before we break I'd like to have you give some thought as to which of those two options you would prefer and I'll do a little survey here to help me make my mind. We're really at a point now where we have enou people so I think breakout sessions would work, but then again if your interest lies principally in one or two programs, maybe it would be better sequentially. I'll leave that up to -- to a later discussion.

But at this point I'd like to ask are there ar clarifying questions that you would like to ask either o Earl Whiteman or Donna Bergman or Greg Rudy about the presentations they have made?

PUBLIC CITIZEN: I have a logistical question

MR. LAWSON: Please.

PUBLIC CITIZEN: In terms of the small groups will there be resource people that will be able --

UNIDENTIFIED SPEAKER: Yes.

PUBLIC CITIZEN: -- to answer questions about all three of the drafts?

MS. BERGMAN: Not in each room.

MR. LAWSON: Not in each room, no. If we do stay together that's one of the advantages, having everybody as a resource for all of them in one room. sir.

PUBLIC CITIZEN: I would suggest a fourth op

and that would be -- I'm sure there are people here that have general comments and there may be a breakout session with general comments. Not knowing the specifics of each of the three programs, you make a comment on nuclear or not, or environmental effects of nuclear disposition or whatever.

MR. LAWSON: Right. Well, actually I think most comments can be incorporated either one of two places: one, right after we get through these clarifying questions, if people have comments they'd like to make I will invite them to make those; and if we do -- if we -- whether we break or not, assuming by the end of the day if anybody wants to make a statement to that effect they're certainly welcome to do that. I appreciate your suggestion. I'm not so sure we have four rooms set up for doing that kind of thing, but we will make sure that everybody has a chance to say what they would like to say before the day is over no matter which way we go. Yes, sir?

PUBLIC CITIZEN: My question really centers around the Pantex EIS and the storage and disposition of weapons, plutonium.

MR. LAWSON: Okay.

PUBLIC CITIZEN: Are the pits that they're talking about storage in the Pantex EIS surplus materials,

first? Secondly, why was the -- I guess it was 12,000, the number mentioned, pits, why was that done earlier and distinctly different than the Pantex EIS? She mentioned it very quickly but it went over my head.

MR. LAWSON: Okay.

MS. BERGMAN: We looked at the -- is it on? Okay. We looked at -- in EA we actually looked at 20,000 pits. But it was a sensitive issue there. And the state of Texas felt strongly that we should not just have a single focus in looking at those pits, that it was important that we looked at other sites as well for -- to consider the storage. There's currently about 9,000 pits of storage.

And the way it worked is back in 1994 when they -- the number was semi arbitrary, I guess you could say. It was determined at that time it would take about three years to develop an Environment Impact Statement. And at the rate they were currently going or projected on going in disassembling 2,000 weapons a year, they had 6,000 weapons -- pits of storage in '94. They projected it would take three years to do an EIS. 2,000 a year, that was another 6,000 pits.

So that's how they came up with the 12,000 number in the finding of significant impact. But determined that that would be the cutoff point and that no

more would be stored there until we looked at some alternate sites. So it was an agreement that was made between the state of Texas and Secretary O'Leary. Does that answer your questions?

PUBLIC CITIZEN: That's part of it, yeah.

MS. BERGMAN: Okay.

PUBLIC CITIZEN: The other part is are the pits surplus on -- on the other EIS?

MR. RUDY: Right. On that part really interestingly enough from an environmental perspective as well as perhaps from a technical schedule of cost prospective, a pit is a pit.

PUBLIC CITIZEN: Yes --

MR. RUDY: A pit doesn't know if it is a surplus pit or a chief reserve pit. And in fact a surplus -- a chief reserve pit today might become a surplus pit down the road. So what the Department is doing in the document that I described is we're looking at storage, an option storing all pits. So it's really a quantity issue. We happen to know at this time what a breakdown would be of how many of those make up 38 tons that are therefore surplus.

But we're accommodating the footprint, an engineering design, which could address all of the plutonium whether it is surplus today or whether it's

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surplus tomorrow. So we're trying to plan ahead and be irrespective of a designation. The only place that surplus versus nonsurplus really comes to play is in the area of disposition precluding its reuse in nuclear weapons. The materials which would be held for national defense purposes would not go through the disposition pipeline, only the surplus materials would. Is that okay Is that --

PUBLIC CITIZEN: We would have a blue one that' -- we would have blue one that's surplus and a red one that's not surplus stored contiguously?

MR. RUDY: Well, you might -- there's one aspe of this design that's pretty important. And when I talk about -- I may have gone too fast on the storage part, y know, safe, secure, cost-effective and inspectable. Because one of the things that, you know, this nation wants to do that has become the offer with Russia and th world community is international inspection, verificatic of the surplus quantities so that once -- there's surplu in Russia and surplus here, those materials don't find their way back into the weapons pipeline.

So there would need to be verification and wi that the facilities would need to be designed to accommodate international atomic energy agency, i.e., E inspection. And in fact, the material forms may need t

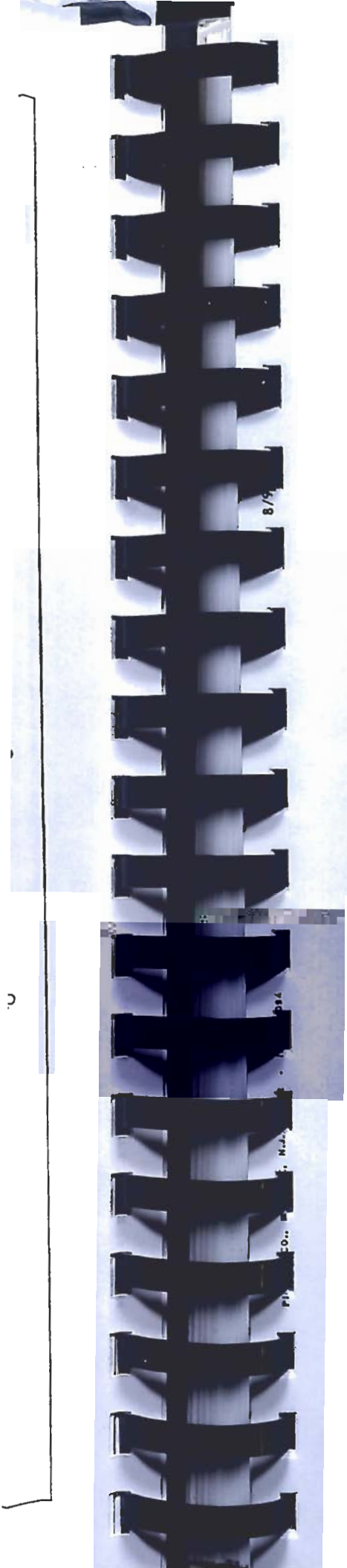
be changed or some technology applied because we would nc be -- wanting to release weapons design information, the shapes and sizes of these components. It's very sensitiv information.

And so what we want is to verify with other nations that, yes, this is surplus and it stays here. We have to work on technologies. We can accommodate that without the release of classified information. So they literally won't necessarily be stored in the same rack o above the other, but certainly contiguous in the same facility.

MR. LAWSON: Greg, I think we have a question front here, please.

PUBLIC CITIZEN: Yes. The other day last week there was a shipment of uranium that was stopped up the Savannah -- in Savannah by the Port Authority and I was wondering how come this shipment was authorized to come the river without anybody being aware of it? It just happened the Coast Guards stopped the ship because one c the containers seemed like it had been damaged. And nov it's sitting at the Port Authority in Savannah.

MR. CHAPUT: I'm Ernie Chaput from the Department here. That -- I just know a little bit abou that shipment. I believe that was a shipment in commercial commerce, it was not a Department of Energy



shipment. I believe it was depleted uranium oxid
while I don't know the details on that, it was be
shipped to a fuel fabricator or a -- somebody inv
the fuel cycle. Jim, do you have any more detail

UNIDENTIFIED SPEAKER: Yeah. I'll be h
talk with the gentleman off-line. I don't think
pertinent to the discussion here.

MR. LAWSON: Yes, sir.

PUBLIC CITIZEN: Someone sneaked a litt
in there that I wondering if there's more implic
there when they mentioned commercial fuel, and p
and commercial fuel. Is DOE finally recognizing
commercial fuel is going to belong to them?

MR. LAWSON: Don't all jump up at once

MR. RUDY: You mean would --

[Audience members laugh and several pa
speak at one time.]

MR. RUDY: -- fuel belong to the Unit
Government? Right now the U.S. Government is u
Nuclear Waste Policy Act outside of the Weapons
and outside of the weapons materials talked abc
The Nuclear Waste Policy Act mandates a process
United States Government has to find and charac
geological repository to be able to accept that
there's all kinds of debates and lawsuits and

I'm not prepared and probably shouldn't be giving my comments on regarding the commercial spent fuel.

But, yes, if the reactor option was chosen for the disposition of the weapons material and then there was mixed oxide fuel, plutonium and uranium, that would certainly be part of a decision and negotiate arrangements on responsibility ownership for that spent fuel. Certainly, no matter who owns it on paper, it would need to be safely and securely stored, maintained in a reactor core and then in the storage pool. The arrangement on how long it stays in a pool, where it goes, who owns, who transports, all of those details, yes, it would need to be negotiated and understood.

The document we're here to talk about today is at programmatic, a higher level, just -- we term, in the ball park, just in Yellow Stone Park, not Fenway yet. We're just a big park right now called technology option. Then later on after that decision, we walk through that gate, then we have to get into those specific kind of details.

MR. LAWSON: There's a question in the back over here, please.

PUBLIC CITIZEN: You mentioned the collaboration with the Russians developing the technologies for doing the various options for the disposal of plutonium. Are

those only limited to the three in the EIS or do they include [unintelligible]?

MR. RUDY: Okay. They principally would fall i those three categories, reactors. But the Russians are also looking at from their perspective different kinds of reactors. They are analyzing fast reactors which we don' use and don't intend to in this country. And they may also be analyzing other reactor types. But principally they would fall in the three basic groups.

MR. LAWSON: Are there any other clarifying questions? Yes, please.

PUBLIC CITIZEN: I've got two quick ones. Wil there be an attempt in order to help regular public citizens understand the language between these three Programmatic EISs? Will there be an attempt to produce simplified document that, in fact, does that, shows the relationship very clearly between these three documents?

And then secondly, on your next steps I notice that there is only one allotted period for public commer and that ends May 7th and July 12th. After the Final PE comes out, will there be another opportunity for the public to come back and make public comment on?

MR. LAWSON: Good question. Actually two questions. The first being is there any plans for a relatively short or simplified document which would

explain the relationship among these three programs and perhaps others? Is that what you said? I'm not sure --

PUBLIC CITIZEN: Yes, that's what I said,

MR. LAWSON: And the other question is to do with the allotted period for possible public review, has that been extended in any way?

MR. WHITEMAN: Let's see. Where was the question? Okay. First of all, I would refer to you, all of the documents, there is a short summary document that is [unintelligible] PEIS. Within that summary document there is a section that describes the relationship among all of these and how the decisions are related. So I think that would answer your question regarding that. We would plan on issuing the Record of Decision in draft form as we issue the final PEIS. And of course, you know, that will be out in 30 days before a final decision.

UNIDENTIFIED SPEAKER: No, we'll wait 30 days after the final --

MR. WHITEMAN: Right, before issuing the Record of Decision.

UNIDENTIFIED SPEAKER: Right. We don't issue drafts records --

MR. WHITEMAN: Right. Okay. I'm sorry. Yes, that's right.

PUBLIC CITIZEN: So 30 days after the final PEIS

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will be a time when the public can come back and

that final draft and make its final recommendations or comments --

MR. WHITEMAN: Yes.

PUBLIC CITIZEN: -- which will then be still

ed into the process of making the final decisions?

MR. WHITEMAN: Well, I think the way the proces

is set up it requires us to wait at least 30 days after issuing a fina fore making a Record of Decision. It was set up ime for people to look at the decision was made.

MR.

question abou

having a public hearing on the PEIS that's inconclusive?

MR. LAWSON: Would somebody be willing to explain why the information supposedly on economics and impact on future generations is being developed but it hasn't been included in the documents that we're now in the public review and comment process on?

MR. RUDY: Yeah, I think I can take that. And I appreciate -- it was last Thursday's session that comment came up, and I thank you for bringing it back up. We discussed -- you asked at that time should you bring it up then or now, and I said both. That's pretty important because I'm sure many of the people in this room today are not -- did not have the opportunity to join the Citizens Advisory Board session last week, Thursday.

Let me real quickly -- and I'll just take less than a minute -- use this as a background and then go into some things specific. The National Environmental Policy Act, for all of the good things it does and all of the tortuous process things it does, helps make sure that from an environmental perspective decisions which would have a significant impact on the environment are thoroughly analyzed. NEPA, the law itself in fact, has a section in it which says you do not want to and you should not have costs and financial issues associated with the costs of some of these options overriding or controlling the

decision.

For example, you don't want to make a bad environmental choice simply because it's real cheap and very inexpensive compared to some other options. Likewise, you do not want to be over influenced under NEPA and fail to choose a very good or benign environmental option simply because it's just very expensive and we don't want to spend a lot of money.

So wha[illegible]does is it specifically mandates the focus on the [illegible]nmental issues. And Donna showed that slide [illegible]f all the various things which are [illegible]vironmental perspective including [illegible]acts, air and water, et

about the schedule? When we look at some of these options, how fast could you get on with the job, reducing global danger? You may have a technology which works but it might take you 50 years to prove it out to deploy it versus the technology which you may have closer to home in which you could get on with this job and complete the mission in a much shorter period, in 10 or 20 years.

That area here of technical scheduled costs and policy considerations -- in fact, let me talk about policy considerations for a quick second. Reactor options, mixed oxide fuel options. There is typically a policy debate where some feel that use of weapons plutonium and mixed oxide fuel, even though you would burn it in a reactor, may not match with this government's policies on reprocessing. Some people draw [unintelligible], understandably you can see it this way, that if you would use this material in reactor fuel you may be down that slippery slope of crossing that line condoning other nation's use of plutonium, the plutonium [unintelligible] and perhaps this government should not step over that line. Now, that's a policy debate, a policy consideration which is not an environmental consideration but it is very important to eventually making a decision on which technology, or technologies, we might deploy.

In this area here and, in fact, in the

environmental -- just by way of a very quick summary, and this wasn't planned to be part of the formal presentation but I thought it was -- it was a helpful summary a little bit last week. There's a lot of considerations and there's no weights to these but, you know, the purpose and need in storage and disposition is really nonproliferation. If you have to boil it down and say, why am I worried about this? Sure for costs and safety, environment, all of those things. But you don't have to choose one of those over the other. It's really nonproliferation, making sure that these materials from the end of the Cold War don't go back into weapons production. Reciprocity with Russia, the policy considerations like I talked about at the beginning to the plutonium [unintelligible] is it good or bad, does it match, you know, what our nation would like to do in the years ahead? Technical issues, is it viable? Do you have existing capability?

One of the things that we look in making that Record of Decision is being practical. If, for example, immobilization was chosen as one of the options or part of it and if we were able to take advantage of the investment that we've already made in Defense Waste Processing Facility and we could use that can in canister concept and get on with it fairly quickly and fairly cheaply, that's a

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consideration which will be pretty important to us. And likewise, cost and schedule and then environmental safety and health, the NEPA things.

So those things are all being taken into account. The Department will under Storage and Disposition by the end of this June/middle of July, by the time they distribute it, be releasing the cost assessments for the various options. We're finalizing the cost assessment of the various MOX versions, the various vitrification versions. And they're rather complex but we're attempting to verify and validate those costs and then summarize them to the public. And we'll make those documents available. Those will be available this summer. A Record of Decision comes at the end of the year.

So there are several months' time where these documents are going to be available to the public to understand and review and provide input. NEPA provides a certain mandate, start and stop time for public comments on environmental. There is nothing which precludes -- and in fact one of the things the Secretary of Energy expressed when she came on board -- there is nothing which precludes, and, in fact, she wants public involvement and information, communicate with the Department up to the Record of Decision. And don't just look at communicating under the NEPA schedule, the NEPA clock. That's only part

of it. In fact, there's a lot more opportunity to understand and to work with the Department in that decision-making process outside of NEPA.

MR. LAWSON: You have got a question? Yeah, go ahead.

PUBLIC CITIZEN: First of all, I -- if I suggested it, I didn't mean to, that cost should drive the decision, but I think NEPA itself mandates that they be considered. If you've got two that are close together in environmental protection you better know what they cost and maybe -- you mentioned proliferation, which is the reason for all of this exercise. Timing, timing is not mentioned here. It might directly -- it could have an impact on the decision and the costs.

And further you -- I don't think you mentioned in your response anything about the impact on future generations and conservation of nonrenewable resources like fossil fuel which it would bring [unintelligible], nuclear power is what I'm hearing. And certainly one direction that this exercise could end up in would pretty well be the [unintelligible] of nuclear power. If we do that, then France and England and Russia and China and all the rest of them cut back on fossil fuels, [unintelligible] 50 or 100 years from now. And [unintelligible] but [unintelligible] got to talk about

future generations is to talk about to some of these alternatives.

When I look back at some of the -- the DOE programs, Yucca Mountain, even close to home, DWPF, they don't always follow the schedules. If we have technology that's available today, that might not be [unintelligible] and it's not even addressed here. I'm looking for a complete environmental assessment that's not [unintelligible] and radiation releases and so forth, the total environmental picture including as NEPA mentions repeatedly, impact on future generations and conservation of nonrenewable resources.

MR. RUDY: I think the best I can offer you is the assurance that from an environmental perspective which includes impact on future generations current and future, the environmental document analysis being done is intended to address those issues under the various options. And when it comes --

PUBLIC CITIZEN: Future generations, I don't see those two words in those four documents. I may have missed it, I don't know.

MR. RUDY: Well, we'll take a look at it, but it's certainly inherent as we analyze materials with half-lives of several thousands of years. That's clearly the driver that we have and the understanding that we have

going in to that analysis.

PUBLIC CITIZEN: Okay. Reprocess spent fuel, [unintelligible] half-life of Plutonium 239, the reprocessing itself removes enough plutonium from that waste you're going to put in the ground somewhere, but the natural decay would take over 150,000 years. Until we [unintelligible] reprocessing [unintelligible] 150,000 years if you're looking at long-term.

MR. RUDY: But what this document was intended to do was take the [unintelligible] up to the form of the spent fuel standard but then not to go beyond that. It doesn't preclude or prejudice future decisions on that spent fuel, but brings it to the spent fuel standard whether in the form of glass, a geologic bore hole, which is it's hard to get at spent fuel several kilometers deep in steel, or the form of spent fuel itself. It brings it up to that point, again, under the purpose and need to preclude the reuse of that material in weapons.

If in future generations decisions are made to reprocess or recycle that material, that would be a separate issue way down the road beyond this focus on precluding the reuse of that weapons material --

PUBLIC CITIZEN: Mr. Facilitator.

MR. LAWSON: Yes.

PUBLIC CITIZEN: I think this could go on for

-- are they

classroom school

for you-all

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if we even started

right now, because I've been to a lot of these meetings

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PUBLIC CITIZEN: I would like to make a comment if I could. My name is Al Lodge [phonetically spelled]. I grew up in Savannah, Georgia and lived there for many years. I have lived in several places and as I was relocating to Augusta mostly for my family reasons and for professional reasons I wanted to check out the Savannah River Site more clearly. And I guess my message is to the Department of Energy and that is that I did a considerable amount of homework talking to lots of people and spending some in-depth time with scientists as well as potential neighbors about the Savannah River Site because so much of what I have heard was negative information, negative environmental information, negative about the number of [unintelligible] related to the site.

Well, I was given some reassurance. And what I have found to be the case since coming to Augusta seven years ago is that, in fact, much of the negative information heard was without basis and fact. And that friends and now neighbors and many others that have worked at the site for many years, really have a deep abiding interest in making certain that first of all it is safe, secondly it is secure and simultaneously that it is environmentally sound. It looks like the Department of Energy is appropriately wrestling with some major issues regarding the future, not just at the Savannah River Site

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but the whole complex.

From what I have gathered the most supportive community of any of the areas within the site is in thi one, the Augusta-Aiken region for the site. It looks t me like with your various considerations of environmentally sound and safe disposal options as well those for remanufacturing, the Savannah River Site is t logical place. Logical from -- in every way.

Lots of folks not just in this immediate area but in Savannah, Beaufort, Charleston, the greater area are interested in environmentally sound policies and practices and procedures. And it looks to me like from the safety standpoint and from an environmental consideration, the Savannah River Site is the logical place for the storage and reprocessing of plutonium if we're looking to make certain that things are environmental safe.

There's a different issue as well in our are and that is for many years the Savannah River Site has been the largest employer. And largest employer also means that it has employed a wide variety, a true diversity of our work force, of our population in thi community. And with the downsizing that has taken pl there have been some negative residual effects. All folks that have lost their jobs and/or potential jobs

at the site has taken its toll.

So from an economic development and pure job standpoint, I encourage the Department of Energy to look favorably at all of the options to consolidate processes in to the Savannah River Site and use the existing very intellectually capable work force as well as the physical infrastructure that has been built up here over time and take full advantage of that. It's a receptive community. We welcome you. Thank you.

MR. LAWSON: Thank you for your comment. Yes, ma'am.

PUBLIC CITIZEN: I have a question about the three PEISs in terms of the environmental justice considerations. Could you -- maybe you want to explain this in your explanation but because we seem to be moving toward breaking down into three separate groups, could the three presenters explain a little bit of what went into that particular analysis? What did you look at when you were looking at this whole question of environmental justice considerations?

MR. LAWSON: Okay. Very good. Who wants to go first?

MR. RUDY: If I can just take it, I guess, from an overview perspective. First and foremost we took a look at the potential environmental impacts associated

with normal as well as off-normal for accident scenarios under the various options for storage and disposition. Once that was technically done to be able to determine the quantity disposed, the material types of dispersion, the mediums of dispersion, et cetera, an overlay on that, an understanding of the populations for any given site, Savannah River Site, Pantex Site, Oak Ridge.

So consistently across the board, understanding of the demographics of a region, understanding the wind patterns and the applying the potential accident scenarios to that could be able to determine if in fact from any of these options there would a disproportionately high or adverse impacts on certain areas around the site. So that's generically the approach that we took and technically the approach across all of our community sites.

MR. LAWSON: Does anybody want to add anything?

UNIDENTIFIED SPEAKER: No, I -- Stockpile Stewardship demands that, you know, we follow the -- essentially the same approach. And in [unintelligible] sites, we had eight sites in the weapons complex, there's a section, it's the 11th section [unintelligible] the environmental resources where we discuss environmental justice and actual disproportionate impacts.

Let me just add, the Department has really

wrestled with the whole question of environmental justice and it doesn't have a comprehensive guidance yet on how to do it, so there may be some differences between the documents but each one lays out its methodology and how it went about it. But it's essentially what Mr. Rudy said.

MR. LAWSON: Ms. Bergman?

MS. BERGMAN: Yeah, I -- let me show you real quick. I've got an overhead on it. We've got a section, this -- environmental justice and human health are the two we looked at in depth in the Pantex Site-Wide EIS. And the work that would need to be done in order to store the pits at the Savannah River -- at the assembly area of P Reactor is all internal to that structure. It would all be internal modifications to make it safe for the storage of the pits.

And so the conclusion that we reached within the analysis of the environmental justice is that there would not -- we would not be expected to experience any disproportionate higher adverse human health or environmental effects. And that is discussed in detail within that section of the EIS and we can discuss it further as we breakout into our workshops.

MR. LAWSON: I just want to do a survey. Are there any other questions before we get involved in other comments? There's a question in the front row, please.

Here.

PUBLIC CITIZEN: Yes.

MR. LAWSON: Just one second and we'll get a microphone so we can hear you.

PUBLIC CITIZEN: Plutonium Storage and Disposition PEIS, as far as the MOX fuel is concerned, in converting the plutonium metal to the powder form as a part of that process, what is the criticality and explosive factor of the powder as compared to the metal form of the plutonium?

MR. RUDY: The explosive factor, what you're [unintelligible] saying, it isn't an explosion issue of powder and oxide, plutonium oxide. You would -- the concern would be the [unintelligible] exposed air. So what the document analyzes -- and it might help if I just give a very quick overview. There is a technology which warrants Livermore and Los Alamos National Lab [unintelligible] to convert a weapons plutonium pit, a metal sphere, to cut in half a near zero waste band so that there's no metal pieces or shards, and then in the presence of hydrogen in a furnace so you control the quantity of material is very important, so that at any given time there's only a certain amount of the material. And in the presence of hydrogen and with heat, the plutonium would what they call hy-dry, it would flake off.

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It just -- you can actually see it flake almost like snow from the -- the half of a pit and would fall into a crucible, in an oven, which would then be heated and would become a metal hockey puck.

Another part of that process is at a later stay you have in a controlled glovebox in earth environment where you control the quantity of material and the environment that it's in to avoid exposure to air and other accident scenarios to convert that to a powder by adding oxygen.

PUBLIC CITIZEN: And the powder is an airborne powder with plutonium --

MR. RUDY: Oh, no, this would not be airborne. In fact, it would be in a sealed contained glovebox in an earth gas, an environment where it would not be exposed to the air.

PUBLIC CITIZEN: Is that sometime, the powder, an airborne form of pow- -- plutonium powder?

MR. RUDY: It would be through the glovebox system in a can and then when it is mixed it would be mixed in a -- it would not be in the exposed --

PUBLIC CITIZEN: No, that's not my question. The question is: At sometime in the process does this powder have the capability of being airborne as opposed to a powder that has a metal that is so heavy that it can't

be airborne?

MR. RUDY: In an accident scenario --

PUBLIC CITIZEN: Right.

MR. RUDY: -- potential dispersion. Andre works on our system for that. If there's anything you want to add in particular --

MR. CYGELMAN: Your question is specifically with regard to the size of the plutonium oxide that's formed.

PUBLIC CITIZEN: Right.

MR. CYGELMAN: In general, the material that is of most concern to human population is below 10 microns. And I believe some of the oxide that would be formed within this glovebox could be about 10 microns.

PUBLIC CITIZEN: And it's contained --

MR. CYGELMAN: It is contained --

PUBLIC CITIZEN: -- but in an accident scenario it would dispersed?

MR. CYGELMAN: In an accident scenario there is a potential for it to be dispersed, yes. And there would be particles within the 10 micron range.

PUBLIC CITIZEN: That's -- okay.

MR. LAWSON: And by the way before we go any further, I failed to introduce some of the technical experts who are here. Andre Cygelman who just spoke is

with the Storage and Disposition. I'll point to Jay Rows [phonetically spelled] who spoke earlier has been document manager for the Stockpile Stewardship Management Program. And Nanette Founds is also here from Pantex Site Wide. Are there any other questions before I take comments?

All right. Are there any folks who would like to make comments before we take our break and then come back a detailed discussion in whatever form? Yes, sir.

PUBLIC CITIZEN: My name is Sam Gore. I'm only a concerned citizen. I do not work at SRS, nor do I have any financial or any other gain from SRS. My comment or concerns address two issues. First is the preservation of a core of U.S. intellectual and technical competence in nuclear weapons to continue the high level of competence this area, Georgia and South Carolina have in safety and reliability. Since I retired nine years ago I have watched the Army be reduced in size to a point where the American people are beginning to question what happened to the high level of competence we've had in our Army in the past. I am fearful with the continued that -- I am fearful that SRS without a continued needed mission, SRS will begin to lose the high level that currently exists in Georgia and South Carolina and our competence and reliability in this area.

My second issue I wish to comment on has to do

with all of the sites under consideration. Today at SRS we have a good future use plan. I am concerned that all of the other sites might not have a similar plan. Our SRS future use plan is an effort to -- to maintain the largest national wildlife research area in America. I hope the undeveloped areas of at all of the sites have that same protection for their wildlife. With SRS's future uses plan, all future development is restricted to only areas that have had prior development. No undisturbed areas are to be developed.

I wish that DOE would make this a DOE-wide policy. I know how developers prefer to build on undeveloped land and are reluctant to take land previously used and reclaim it for new development. Future development on all DOE sites start the trend in America to build new on old abandoned sites.

In closing I hope DOE quickly discards the deep bore hole alternative as discussed in their Storage and Disposition PEIS. Thank you for this opportunity.

MR. LAWSON: Thank you very much. Is there anyone else who would like to make a comment before we take a vote and then go to a break. Yes, sir.

PUBLIC CITIZEN: My name is Wayne Rogers. I have been a resident of this area for, I guess, 28 years now working on both sides of the river. And I have never

had any direct association with SRS before. I'm currently Director of Planning for the Lower Savannah Council of Governments and in that capacity I've had the opportunity to work more directly in recent years with some of the SRS programs.

But speaking as a citizen and having been here 28 years I think that the facility at some point in time has touched everyone's life whether it's through employment directly or indirectly, and they have been good neighbors. It's been, we feel -- or I feel and I think all my friends do, well-run, very conscientiously managed and we feel that it's even more so at this point in time and this is no reflection on what's come to pass. I think it's just the legislation, the regulations, and so forth that have occurred.

But having worked with various federal programs and state programs we -- I feel that the utilization of existing facilities out there, the maintenance of the core, the experience and technologies and the manpower -- and womanpower, if you will -- that we have in this community, it's been an integral part of our community. We feel that going forward -- the analyses that have been quickly made, have been made in a very conscientious and straightforward manner. I think that the things that are going on here now and have gone on the last few years in

an effort to inform the public, not only locally but nationally, are prime examples of that. And as a local person I think it's very important for us to have a better understanding of what -- what is going on with the facility and what its potential is.

And I think that we would like to see the recommendations implemented. We would like to see the SRS facility utilized for the programs are outlined in these three statements. We feel that the facilities are there, the land area is there, the expertise is there and that it is not only in the best interest of the community on the economic side, but nationally. And we appreciate the opportunity of having -- to be able to comment in this regard.

MR. LAWSON: Thank you, sir. Is there anyone else who like to make a comment? Yes, sir. Right up in the front here, Jim.

PUBLIC CITIZEN: My name is [unintelligible] Mohammed from Savannah, Georgia. One on my main concerns is that if plutonium can turn into, like, powder or dust form -- it states here in the Storage and Disposition of Weapons-Usable Fissile Material summary is that the African-American community, or you-all consider low income or minority, would be disproportionately affected if there

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PUBLIC CITIZEN: And ased on that, I have a comment that I am going to make r, but I think that it's really important particula nder the NEPA regulations [illegible] artment of Energy to really b ring the public more

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potential dangers, what are the benefits, et cetera, et cetera, but also to be here to raise their own questions and concerns and then be prepared to help make recommendations that will be factored into the final decision.

Because we can point to the successes of the plant, the positive role that it has played in this community, the fact that it is one of the largest employers, but there may be some other things that those regular citizens need to say that may in some way shape the final decision on these particular three EISs that's needed.

MR. LAWSON: Good point and thank you. Anyone else with a comment? Yes. Well, actually a couple hands in the back. First, we'll come to you, sir.

PUBLIC CITIZEN: One thing, I've been sitting here listening to this, about the Barnwell plant that was closed by President Carter, why can't we reopen that and do what's necessary to process a lot of these fuel rods and radioactive material?

MR. LAWSON: Okay. The question is, the Barnwell facility in South Carolina, why can't that be opened?

MR. RUDY: I'll -- I'll address that, I guess. Again, the Barnwell facility would be for reprocessing of

the spent fuel. And in terms of the Spent Fuel Standard, the issue here is to take it to a spent fuel form. There -- when we're talking about the surplus plutonium it is versus the amount of spent fuel that already exists commercially in this country, let alone the world. This is an extremely small percentage.

So this document does not envision reaching out all the way to reprocessing and then eventually recycling material. It takes it to the point where it is changed from a weapons shape and useable form into a spent fuel standard. Future decisions aren't precluded or prejudiced regarding that.

PUBLIC CITIZEN: I understand that but we have five reactors over here sitting full of spent fuel, been sitting there for five years. I think it's time we started looking at that, too.

MR. RUDY: I can just take that comment, but I understand that. What we're attempting to do is get on with the job of [unintelligible] without stopping work on those areas which have been going on, you're right, for several years, but -- to make progress in this area.

MR. LAWSON: Okay. This gentleman -- oh, no, I'm sorry. I called on your first here and then --

PUBLIC CITIZEN: I want to respond to that --

MR. LAWSON: All right.

PUBLIC CITIZEN: My name is Chris Noah. I'm the Land Use Coordinator at SRS for Westinghouse, but I'm here on my own time speaking for myself. And I've got a little presentation but I believe I'll save it for one of the breakout sessions. You don't have enough time right now. However, some of the things that were said require one slide just if I may --

MR. LAWSON: Excuse me. Will it brief?

PUBLIC CITIZEN: It will be very brief, yes. This has to do with the future use of SRS. And what I want to stress is -- and by the way, I just wrote a book on environmental uses of the Savannah River Site, or I'm writing, finishing up. So I've done a little research, it's just not off of the top of the head sort of thing. But what I want you all to keep in mind is that if we look at a primary use which is industrial, the -- it can be nuclear or non-nuclear, you can do a lot of things using the land use concept and multiple use, okay? You've got the primary use right here which would be the project that you all are talking about now. And as you go out from this primary area the protection increases.

So at least it's self-explanatory and I can explain it later. But I just want people to get that idea as we talk, that: Imagine 310 square miles and then the center is where most of your activity, your industrial

activity occurs, and then as you go outwards you can do all sorts of things, all sorts of environmental things.

MR. LAWSON: Okay. I would just ask you and anyone else who has visuals or a written statement to leave a copy of it with us so that we can -- it can be included in the record. Yes, sir, you had a question regarding a previous speaker --

PUBLIC CITIZEN: A response, somewhat.

MR. LAWSON: Please, go ahead.

PUBLIC CITIZEN: Some 15 years ago I was retired from Allied Signal and prior to that I had been vice-president at the Barnwell plant. I haven't talked to anybody at Allied for ten years about that plant. In the previous [unintelligible]. But when Mr. Carter shut that down, to me that was a prostitution or complete avoidance in the NEPA process. There was a NEPA activity going on, so called [unintelligible] generic environmental [unintelligible] of mixed oxide fuel. It was underway. It had been extended from the [unintelligible] environmental to the question of MOX. He eventually got that off, issued an executive order, and by [unintelligible] NEPA Congress mandated that before any major -- any major action affecting the environment should be subjected to NEPA review. He ignored that, by-passed it. A couple of weeks ago [unintelligible]. But anyway,

as far as -- and I'm, as I said, I'm not speaking for Allied Signal, but if I had an investment in any company and they offered at this time to get into the nuclear fuel cycle making MOX fuel, reprocessing spent fuel, I would argue completely against it. Once the federal government can by the signature of one man tear down something like $250 million in private investment and just throw it away, no Record of Decision. They did this before.

I was earlier involved in the [unintelligible] processing in the mid '60s. A private venture, we put about a million dollars into it. We thought we were doing well, it was an R&D thing, extremely highly classified. It was highly classified and, you know, it was all private. And that was cutoff. And their reason: If we continued to pursue this it might encourage other countries.

I talked to Europeans after that and their conclusion was you guys must have had something going or they wouldn't have shut you down. And so they all started work on it and now it's a very popular way of enriching uranium. It's all over the world. To cut off reprocessing in this country to influence other countries, you can see how successful that's been. And it's the only valid reason that I've -- it's the only reason I've really heard put forward to it, is to discourage others by setting a good example. It didn't work before, it's not

going to work this way. I don't like [unintelligible] version.

And incidentally, don't taken any of my comments as being against the people from DOE. To me they're marching to the beat of a drummer who is the President, they work for the President, they do what he tells them to do.

It's amazing -- I've been doing -- working -- attending a lot of the Citizens Advisory Board meetings lately, talking to people from the site who have contacted to DOE contractors at various sites. If you get them by themselves out in the hall at some of the meetings, at lunch or something like that, most of them share my positions the only way to get rid of plutonium properly is to burn it and recover what's left and burn it and go on down the road.

So I'm not saying this critical of anybody in DOE from the top to the bottom, I'm [unintelligible]. You mentioned Barnwell, and it touches a -- yeah, a nerve.

MR. LAWSON: All right. I appreciate your comment and I would encourage people to try to keep your comments focused as much as possible on these documents. We certainly don't want to limit your comments, but -- yes, sir, we have another comment here and then I would like to take a survey of how you would like to go --

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continue on with the rest of the day.

PUBLIC CITIZEN: Yes. According to your summary report there was a calculation of potential risks of -- the citizens of Savannah are within the range of the site for getting cancer over a estimate of 50 years. Was there -- did you-all calculate the -- not only the potential release of radiation coming from the Savannah River Site, but did you-all calculate the other plants that's releasing other types of chemicals and other types of radiation or other forms of radiation in combined with that which is coming from the Savannah River Site?

Because if you haven't and you only estimated the potential risk of cancer coming from the Savannah River Site, then there may be a greater risk of low-income people getting the repercussion of what we economically are trying to benefit from the Savannah River Site.

MR. LAWSON: It's a question of cumulative impacts. Do you -- Andre Cygelman.

MR. CYGELMAN: I believe that it represents a cumulative impact, what would be projected to be operatin plus what would be --

PUBLIC CITIZEN: I mean, that's not -- that's not clear. You're not exactly sure.

MR. CYGELMAN: Okay. Then we'll have to make clearer.

MR. LAWSON: Now, I would just -- Andre, I think -- you were talking about non -- sources that were non-DOE; is that correct?

PUBLIC CITIZEN: Right. Well -- Yes, sir, combined.

MR. LAWSON: Right.

PUBLIC CITIZEN: Combined with --

MR. CYGELMAN: We would only be looking at what was from Savannah River, not anything outside the Savannah River area --

PUBLIC CITIZEN: Well, that's not -- well, my opinion, that is not fair to the citizens of Savannah because now you're only projecting what Savannah River Site, this is supposed to be a total -- this is supposed to be a total sum of -- assessment of what's going to -- a health assessment, what's going to take place.

So not only should it be calculated, the radiation that's going to be released from the Savannah River Site, but what is -- what is the total impact because say, for instance, we may have a better chance if the Savannah River Site was closed down, you know, instead of adding what radiation or what contamination would be released from the Savannah River Site, we may have a better chance of having a longer life span if we would close the plant down. So if there was a total calculation

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along with all the other plants along with Savannah River Site, then I think there would need to be more input in the study as far as health -- as health is concerned. Do you understand what I'm saying?

MR. CYGELMAN: I understand your comment. I'll have to take it up with our [unintelligible].

MR. LAWSON: All right. Thank you. Anyone else with a comment now that can't wait -- yes, ma'am, please.

PUBLIC CITIZEN: I just find it ironic -- I understand under the Stockpile Stewardship and Management PEIS there's discussion about upgrading the pit production at Los Alamos and under the Storage and Disposition of Weapons-Usable Fissile Materials we're worried about what we're going to do with all these pits that we've got. It just seems kind of strange, we're going to make some more and we don't know what to do with these we've got.

MR. LAWSON: Okay.

MR. RUDY: I'll just -- I'll try to link here with Earl. What Earl's document is talking about is making the new pits to maintain the stockpile, the nation's national defense nuclear deterrent. A pit is not a pit. There's different types and forms and ways that you would make pits for special types of weapons design. Because the President under a national security policy has stated we will maintain the nation's nuclear deterrent,

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we've got to be able to maintain that capability in the event that new weapons might ever be required. So that's a technological issue associated with weapons stockpile of the future. The Storage and -- is that clear?

PUBLIC CITIZEN: [Indicating negatively.]

MR. RUDY: Okay. It's making -- you know, if the engine breaks or you need to modify something in this six cylinder engine, what would you do to make sure that you continue to have a good operating engine. Now, what we're doing is, these are engines, the surplus pits which are no longer required. You would not need to use them. You would never intend to modify, fix, or remanufacture them. The President, in working with Russia has said we have sufficient plutonium in weapons or in stockpile plutonium materials that will allow this nation to say approximately 50 tons is surplus to defense needs and will never go back. It's because of that that we have to find ways to store and then dispose of that material.

And so there is a unique difference. One keeps the weapons and the stockpile safe and secure and reliable, they'll work if they need to work. The other says once you cross the line and you're no longer are going to use it for weapons, what do we do with those pits to make sure that they can't be reused in weapons. Does that help?

PUBLIC CITIZEN: Yes. ...st it doesn't really make sense to me, that's ... trying to say we're going to ... the same time we're making more ... re maintain ...

MR. RUDY: Okay. Well ... the President said we're going to do is we're going to ...intain nuclear deterrents, we're always going to k... weapons. We aren't going to eliminate all of them and ... haven't reached that unfortunately yet around the world that all of the wea... are gone. Beca... n and others h... policy of this ... onal security ... se we're going to keep ... cure, and reliable.

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vitrification here. I'd like to know with this fifty tons of plutonium we're going to be getting rid of how long, if we just use vitrification only, would it take to get rid of it? If we use MOX -- like over here at Plant Vogtle, if we used a couple of places and started burning it. What if we used vitrification and MOX at the same time, could we not get rid of it faster? It seems like all the discussion I've heard is one or the other. I haven't heard any discussion on using two or more systems at the same time to speed up the process, is the word you used, in scheduling.

MR. RUDY: Yes, thank you. I may not have been clear enough, but I really wanted to express that it may be the decision on technology or technologies and, in fact, you may very well pick some combinations thereof. So you are not precluded. It's not an either-or situation among those three.

MR. LAWSON: A comment here.

PUBLIC CITIZEN: I guess I have two comments. One, I'd like to request to take a break. And, two, I'd like to come back to the procedure issue a little bit and say couldn't we -- when we come back, could we focus on one at a time in general? Let's say, you know, let's talk about Pantex or let's talk about stockpile. We're kind of far beyond the -- I mean, we've just got a broad range of

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things. I'd like to see us focus a little more --

MR. LAWSON: That would be the intent, sir. Thank you. Anyone else?

Okay. Well, you're going to get your wish for a break in just a couple of minutes. Also before we break, those of you have written statements, I've been reminded that there is a copier machine that is available if you need to make a copy to hand it to the folks here.

Now, let me just ask a couple of general questions and then get down to the nitty-gritty here. Let's talk about the three programs for a second. How many people have a principal interest in only one of those, and let's take them one at a time. How about a principal interest in Stockpile Stewardship and Management, anybody have a principal interest in that?

PUBLIC CITIZEN: Tell us where you're going.

MR. LAWSON: Pardon?

PUBLIC CITIZEN: Tell us where you're going?

MR. LAWSON: Where I'm going with this?

PUBLIC CITIZEN: I have a principal interest, but I also have interests in the other two, also.

SPEAKER: Well, I'm going to ask it for all of those as well. I just want to get a sense of where the major focus is, whether it would be better for us to stay in one group viewing one or two very quickly because

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there's not a lot of interest and then spend much more time on the one that is of interest, or whether we really need to make sure we will be giving a lot of time for each of the three groups and it's better having the three breakout sessions. But I need a little more information [unintelligible]. Okay. Stockpile Stewardship, I didn't see any -- yes, ma'am.

PUBLIC CITIZEN: Not being a scientist --

MR. LAWSON: Yes. Are you speaking about me or you?

PUBLIC CITIZEN: Me. I'm trying to get -- because we are dealing with the three of them together, I'm assuming that there is such an intimate relationship between the three of them that they warrant discussion because, you know, they work together. Is that a correct assumption or can we just deal with them in isolation and still get the broader picture that we need in order to be able to make some kind of substantive recommendation about all three?

MR. LAWSON: Well, if you're asking me, I would say that you could do it -- you could do it both ways. Because I ran a meeting last week at Amarillo where we broke into different groups and I think everyone had a chance to ask what questions they needed in each of the groups and then they came back together again. So there

was an opportunity to share or to tell some ideas that you had or to clarify.

PUBLIC CITIZEN: I guess that's why I asked if there were going to be resource people in each small group that we could refer questions to because if there were, then a small group for us would be better because it would be -- it would give us a chance to have greater interaction. But we would want to be able to ask specific questions about the other two that we were not in.

MR. LAWSON: Yes. Well, they were honest before when they said that there won't be experts -- there won't be a specific expert for each program in each of the breakout sessions. We just don't have enough people for that. But they know something about the other programs so they could say something about it. And they could certainly tell you when they know it, when they don't know, when you would have to go to another group to ask. Is that fair?

All right. How many people have a specific interest in Stockpile Stewardship and Management as principal?

How many have a principal interest in the Pantex Site Wide?

How many people have a principal interest in the Storage and Disposition?

Okay. Given that information, then, let's just see how you feel about breaking into three groups or staying with one. How many feel that their chance to participate, say what they want to say, ask the questions they want, and have the dialogue that they want to have would be better served by going into three separate groups?

That's about seven people. How many feel it would be better to stay in one large group?

There's a little more towards the large group. Does anybody that prefers the small group want to state a good case for that? Yes.

PUBLIC CITIZEN: Well, not necessarily the specifics of the subjects, but it was stated back here we might be able to explain more of what -- or have more time to express more views rather than -- how many people are here, seventy-five or a hundred?

MR. LAWSON: Yes.

PUBLIC CITIZEN: And to give them each five minutes, we'll be here for quite some time. So I just thought that as far as equity of time, there's three groups -- whether they're three groups dealing with the issues -- or all three issues or three groups individually.

MR. LAWSON: Because -- well, let's just think

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PUBLIC CITIZEN: Okay. We from Savannah, ou

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MR. LAWSON: I doubt that.

PUBLIC CITIZEN: S

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SPEAKER: Okay.

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for Storage and Disposition, and C will be Stockpile Stewardship and Management. I would ask you if you could try to as evenly as possible divide yourselves into those three rooms. And we have probably at the most twenty to twenty-five minutes before the facilitators will say, "if you'd like to move to another room, you may." You certainly can stay in that room if you would like but if you want to move, that would be a good time to do it. And then we'll leave enough time to come back here at 11:30 or a little after that to -- for summaries that are made and also to take any questions that you have. Let's take ten minutes. It's now 10:22. Let's reconvene at 10:30.

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PUBLIC CITIZEN: . . . put a small amount of plutonium in a smaller can?

MR. CYGELMAN: Right, let me -- go ahead.

PUBLIC CITIZEN: And then put the can in a canister?

MR. CYGELMAN: Right. Let me --

PUBLIC CITIZEN: Then you lost me there. Okay. I got the can in the canister.

MR. CYGELMAN: Let me give you the concept and that might help. The concept is one, right now high level waste has a reasonably high radiation level outside the surface. From a nonproliferation viewpoint it's very attractive. It makes it very difficult to steal undetected and you get a substantial radiation exposure. So we said, well, how can we utilize that concept. And one way to utilize that concept was, okay, we will take the plutonium, it will be a slightly different glass, and we'll load it in small cans that are, oh, about this high [indicating] and probably around this diameter [indicating] and we put it in the metal structure that's self-supporting. Then we taken this metal structure and

-- have you seen the canisters --

PUBLIC CITIZEN: Uh-huh [yes].

MR. CYGELMAN: Okay. It's cut open, okay. So you take this structure and you load the self-supporting structure with the cans. There's nothing in it except space at this point. All right. Then you weld the top back on. Then you take that and then you bring it into the hot cell line and you pour the high level waste and glass in the canister surrounding these little cans that are in the canister.

Now, the advantage of that is, one, you get a substantial radiation barrier. In general, plutonium has radiation but it's not enough to really cause any nonproliferation deterrence.

PUBLIC CITIZEN: What time would be required to build the new facility here?

MR. CYGELMAN: Okay. We're looking at starting something in the time frame, assuming a Record of Decision, it would probably be about eight years -- six, eight, nine years before we could really get started with serious conversion of plutonium into a form that's really nonuseable. We would be able to convert small quantities before that, as we did our demonstration that we tested things out.

But seriously speaking, it does not appear we

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would be able to get started with either ceramics or MOX options, reactor options, earlier than at the minimum six, probably more reasonably eight, maybe nine years.

PUBLIC CITIZEN: Why does it take six years for a MOX? You've got the fabrication plants over in Europe ready to go with access capacity. The utilities have said that there -- at least with Vogtle, the reactor shell is designed to take necessary changes. They said they, what we heard Thursday was it wouldn't take them any six years to do that. So why the six years?

PUBLIC CITIZEN: Yes, I was going to make a quick correction about it since I'm from [unintelligible], you know. And if there's a commitment early enough and even though -- really deploy this whole program more rapidly, just in the interest of nonproliferation generally, we can commit capacity now for both the lead test assembly or test demonstration program and then later on for the first third core -- for core loading. But it just has to be done earlier on, otherwise you will book up -- the capacity may be booked up. But so it's just a matter of the commitment can be made, then that space can be made available.

MR. CYGELMAN: Well, I recognized, that's why I qualified it. I said we could get started earlier in small quantities, possibly using the European capacity.

But by the time we're really ready to start disposition, unless there's a reevaluation in Europe, we would not be able to use what appears to be committed capacity with regard to balancing the European separation of plutonium and burning of plutonium in the time frame that we would be moving large quantities of plutonium.

PUBLIC CITIZEN: What, in layman's -- in layperson's terms, what is the greatest negative of using MOX fuel?

MR. CYGELMAN: Well, in the United States the position is the greatest negative of using MOX fuel is the fact that it poses a proliferation risk.

PUBLIC CITIZEN: And that's because you're talking about sending, possibly sending stuff to Europe to be --

MR. CYGELMAN: No. No, it poses a proliferation risk in the sense that you're dealing with plutonium.

PUBLIC CITIZEN: Right.

MR. CYGELMAN: You're fabricating plutonium. If that plutonium, we have to divert it, it could be met by any terrorist group, any other group, and could be used to form a nuclear weapon.

PUBLIC CITIZEN: We better shake down DOE real quick, hadn't we? They're doing it everyday. This hits a sore chord because as you heard I was with the Barnwell

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plant. We did that to stop proliferation. All of our key technical people had worked for DOE or ADC or [unintelligible] before had the clearances, they were trusted there. All of a sudden industry cannot do this anymore. They went on reprocessing right next door to us, Savannah River Site. They said, no. Commercial industry can't do it. I'd like somebody to tell me why you couldn't trust me as well as you can trust Mario Fiori?

MR. CYGELMAN: Let me try to --

PUBLIC CITIZEN: I wasn't asking you. I'm merely wondering why when you start talking commercial you say oh, we're going to have trouble with proliferation.

MR. CYGELMAN: Okay.

PUBLIC CITIZEN: Well, let's put armies around all the DOE sites and shut them down.

MR. CYGELMAN: Well, we -- to some extent we have pretty extensive security and safeguards on DOE --

PUBLIC CITIZEN: I think industry does, too, sir.

MR. CYGELMAN: Okay. Now, let me answer your question a little differently, which is at the time --

PUBLIC CITIZEN: Domestic terrorism --

MR. CYGELMAN: Huh?

PUBLIC CITIZEN: You just signed a domestic terrorism bill which is going to cover such acts like that

from any foreign sources. Why is it still a non -- a proliferation problem?

MR. CYGELMAN: Well, I'll come back -- maybe I'll answer your question a little differently. The proliferation risk may not necessarily be in this country. The proliferation risk could be in other countries.

When the position was first posed in this country it was really -- and you may disagree with it and a lot of people do disagree with it -- but the position was that handling plutonium, okay, is a proliferation risk, period. Okay? All right, that's number one. You want to have nuclear weapons because you feel it enhances, and it sounds odd, but it enhances national security, then do so. But why do you want to expand that use of plutonium? If you have other options to produce nuclear power, why not use uranium? Why do you have to -- I'm not saying, I'm not saying yes or no; I'm just giving you some insight on it.

PUBLIC CITIZEN: Okay. Well, you mentioned a possibility. There's a real possibility of sending it to France and let them do it. If letting them make MOX fuel is enhancing the risk of proliferation, and we don't have it here, the U.S. was one of the prime movers in organizing the International Atomic Energy Agency. Their main responsibilities is stopping proliferation. Why

doesn't the U.S. insist that the IAEA stop MOX fuel in France? Stop MOX fuel in England. Keep the Russians from going that way. If it's so bad for us, why do we let the rest of the world do it?

MR. CYGELMAN: Well, if you read the position that the President talked in the Export Control Policy, it said -- it recognizes that other countries have gone a slightly different path in spite of what the United States would have liked. And it says, well, we're not going to encourage it, okay. Again, in an international entity, we're not going to encourage it but we can't tell you flat out to stop it.

PUBLIC CITIZEN: We don't encourage or discourage, I think that's the words that --

MR. CYGELMAN: We don't encourage to use the plutonium. That's what the words say, okay. Exactly what the words say. So I'm trying to answer your -- plutonium is not the best thing in the world to have around because you can make nuclear weapons. Some of them are sophisticated, some of them are unsophisticated. But the reason we're here today is not so much in the United States, we haven't had any incidents in the United States.

But there's a concern outside the United States. There's a concern in what used to be the Soviet Union where the institutions are -- have been deteriorating,

where it could pose a threat. Now, if we want another country to start disposing other plutonium, the feeling is no one else is going to do it unless we also do some of it, disposing of plutonium.

PUBLIC CITIZEN: France is doing it, England's doing it, China's doing it.

MR. CYGELMAN: You mean --

PUBLIC CITIZEN: MOX fuel.

MR. CYGELMAN: In terms of --

PUBLIC CITIZEN: Commercially.

MR. CYGELMAN: Yes, they're doing it. And I -- they're using it for different reasons than here, but they're doing it, yes.

PUBLIC CITIZEN: Well, they're doing it for sound economic and environmental reasons.

MR. CYGELMAN: They're doing it for environmental reasons, right.

PUBLIC CITIZEN: Using MOX fuel.

MR. CYGELMAN: Yes, that's correct.

PUBLIC CITIZEN: Yes, exactly.

PUBLIC CITIZEN: I was just going to point out on that issue, IAEA did a report a few years ago looking at the operations at -- [unintelligible] for other large scale processing plants and also it's MOX production and said there is no proliferation risk. The U.S. was a

participant to that study. And as far as all the European countries go, including the U.K. they're very concerned about nonproliferation. They make it one of their highest priorities as well as impact to the environment.

And so all these operations have undergone, just for people who don't have any familiarity with your systems --

MR. CYGELMAN: I agree with you.

PUBLIC CITIZEN: Yeah, that --

MR. CYGELMAN: There is an IAEA. In fact, one of the things under the surplus plutonium, we've committed that at some period in time the surplus plutonium will be under IAEA in storage and as it's disposed of. But I want to emphasize the point once again with regard to plutonium which is the country's position, is if you don't have to use plutonium, don't use plutonium, okay. I mean that's the bottom line.

MS. WHERLEY: You had a question over here.

PUBLIC CITIZEN: Yes. Using your different types of reactors, it's going to require the use of water. It's going to be your major source of keeping --

MR. CYGELMAN: That's correct.

PUBLIC CITIZEN: -- most of your reactors cool. Where would your major source of water be coming from?

MR. CYGELMAN: Well, first of all -- you mean at

Savannah River if there were a new reactor?

PUBLIC CITIZEN: Yes. Yes.

MR. CYGELMAN: I would suspect that the first source of water would be Savannah River, but on the new reactor the water would be recycled so you'd be using a makeup on a continual operation --

PUBLIC CITIZEN: You could do cooling towers.

MR. CYGELMAN: Huh?

PUBLIC CITIZEN: Why don't you do cooling towers?

MR. CYGELMAN: Excuse me?

PUBLIC CITIZEN: That's what he means.

PUBLIC CITIZEN: Cooling towers.

MR. CYGELMAN: Yeah, using cooling towers.

PUBLIC CITIZEN: They've got surplus towers --

PUBLIC CITIZEN: You could use air.

MR. CYGELMAN: Huh?

PUBLIC CITIZEN: You could use air.

MR. CYGELMAN: But you've got to get water in the first time around.

PUBLIC CITIZEN: Yeah, the first time around.

MR. CYGELMAN: Okay. You've got to fill it with water and as the water evaporates you've got to do makeup. But once you've done the fill, then you still have to make up --

PUBLIC CITIZEN: But eventually there'll be a discharge -- they will have to discharge the water that have already been used, the water have to be discharged and recycled again, right?

MR. CYGELMAN: Well, let me try to -- what normally happens is once you've filled and you're operating you do provide makeup water and you're right, in order to -- you're going to have to discharge some water. That's correct.

PUBLIC CITIZEN: Right. Right.

MR. CYGELMAN: It depends on, you probably -- I don't remember the number, but 1 percent or something in that order is either made up and discharged, yes.

PUBLIC CITIZEN: So there wouldn't be any water coming from the ground? There wouldn't be any use of groundwater? The reactor wouldn't use any groundwater?

MR. CYGELMAN: I don't -- well, I don't believe so, but I want to make sure. No.

MS. WHERLEY: A question on the back?

PUBLIC CITIZEN: I guess my question is about which of these methods creates the most waste? I was -- I didn't understand the comment about MOX being used for environmental purposes because I was under the impression that there was more radioactive waste created by using the -- the plutonium and reactor, rather than just putting it

in --

MR. CYGELMAN: In general, in general the reactor route will create more waste in the area of -- well, not transuraniums, but mixed oxide waste. Well, within MOX fabrication, yes. Transuranium, mixed waste, the MOX route would tend to be a little heavier than the others.

PUBLIC CITIZEN: Don't you think there should be a waste standard, also?

MR. CYGELMAN: Waste standard. Let me -- well, we do in a way have a waste standard. I mean, we have regulations that stipulate how much you can release to the environment. We do have those standards. But above and beyond that the Department really has committed itself to what they call is pollution prevention which is you look at your processes right at the beginning and you try to develop -- you develop processes that actually minimize the amount of waste that's generated, so --

PUBLIC CITIZEN: I would think then the reactor idea should be discounted.

MR. CYGELMAN: Well -- all right.

PUBLIC CITIZEN: Where can we get more detail on that?

MR. CYGELMAN: On what, sir?

PUBLIC CITIZEN: Because I had that concern,

too. And in Thursday's session I understand there were a lot of questions about waste that were never answered. Now, where can we go for more detail on that?

MR. CYGELMAN: Okay. Well, in the PEIS, and I agree it's a horrendous document, but in the PEIS for each of the disposition alternatives, there are tables that indicate how much waste is generated and the type of waste, not only radiological, but nonradiological waste. Now, if you'd like we can get someone to highlight where it is, if you'll give me right at the end -- and you can then look it up.

PUBLIC CITIZEN: Okay. I'll see you after for that. Yeah, I'm interested.

MS. WHERLEY: I have one question I'd like to interject. The woman along the back wall, would you like us to be sure that we have your -- as a comment that you think the reactor option should be disfavored because of waste generation? I want to make sure the notetakers have that.

PUBLIC CITIZEN: Yes.

MS. WHERLEY: Okay.

[Several participants speak at one time.]

PUBLIC CITIZEN: I think we ought to discuss that a little bit more.

PUBLIC CITIZEN: Well, we want to make sure,

too, that we get a comment in there about that MOX fuel since you are talking about getting comments down.

PUBLIC CITIZEN: Right.

[Several participants speak at one time.]

MS. WHERLEY: Can we let Andre just finish up and then we'll go into a comment --

MR. CYGELMAN: I don't have much. Yeah, I'll just wrap it up and then we can deal with more questions.

PUBLIC CITIZEN: Can I ask one following question that's pertinent to this?

MR. CYGELMAN: Yes.

PUBLIC CITIZEN: Does the -- you say that you have these extra wastes that are created. Do you also account for the decrease in the amount of waste caused by decreased mining requirements for uranium --

MR. CYGELMAN: Yes. Yes.

PUBLIC CITIZEN: -- and decreased enrichment requirements by using the MOX?

MR. CYGELMAN: Yes.

PUBLIC CITIZEN: That's all accounted for in the evaluation?

MR. CYGELMAN: Yes. What we've looked at is the fact that if you went the MOX route, and you have, roughly, nominally, 40 metric tons of plutonium, we've looked at what the equivalent low enriched uranium fuel

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would be to generate the same amount of power. And then we walked backwards to see what it -- how much more would be mined and we have taken the impact into account.

PUBLIC CITIZEN: That's not in the PEIS, is it?

MR. CYGELMAN: It's supposed --

PUBLIC CITIZEN: No, it's not. I don't think --

MR. CYGELMAN: It --

PUBLIC CITIZEN: It's in the body of it. It's in the back section. You don't see it in executive summary.

MR. CYGELMAN: Yeah. Right.

PUBLIC CITIZEN: In Volume II you just talk about the waste streams, you don't net it against that which is avoided. You talk to it but it's not netted against it.

MR. RUDY: That's a comment we have picked up in early meetings as we have gone around the various sites. And we're going to increase that amount of coverage in the final document.

MR. CYGELMAN: Yeah. In the final we'll make it much clearer. What happened is at the last minute that got thrown in there. Okay.

PUBLIC CITIZEN: Would you go back to what you said about vitrification? You said something about 5 percent.

MR. CYGELMAN: Okay. 5 percent plutonium means we were loading the glass 5 percent by weight, which is if you have a hundred pounds of glass you would have five pounds of plutonium --

PUBLIC CITIZEN: Oh, okay. I got it.

PUBLIC CITIZEN: I have a question.

MR. CYGELMAN: Yes.

PUBLIC CITIZEN: Yes. Didn't with the partially completed light water reactors the, I'm not -- the gentleman mentioned that you all would be using cooling towers. But from your report it states that there will be salt drifted -- there will be salt that will be affective to the, not only the wetlands but the aquatic environment due to these light water reactors. And we noticed especially in Savannah that the beaches are corroding because of the saltwater intrusion and stuff like that. And I'm very concerned about that because I called them -- I called the State, National Wildlife, and there are quite a few species that are on an endangered list along the Savannah River from here all the way down to Savannah. And along with that, with the effect of thermal impact and other problems that will cause the change of the aquatic life, that is one of the major concerns, also.

MR. CYGELMAN: Okay. Now, let me make a clarifying comment. With regard to Savannah River, there

completed , but your point i

well made ere to bui

River.

Right.

MR. CYGELMAN: Yeah. The salt comes from the evaporation.

PUBLIC CITIZEN: Yes.

PUBLIC CITIZEN: That's not salt like in the

plutonium fuel cycle, about the Europeans, about the capabilities of people. And I really think that we haven't captured really all the comments that were made here.

MS. WHERLEY: No, no. I'm not attempting there's -- nothing here suggests that these are group comments. These are individual comments. We'll also -- you'll all have an opportunity to give me your comments. It's just that that was coming up. I didn't want to lose it.

PUBLIC CITIZEN: Well, we've been talking about this for --

PUBLIC CITIZEN: We've been commenting for a half an hour.

PUBLIC CITIZEN: We've been talking about this for a half an hour and none of the comments came until we hear MOX fuel should be discounted because of the waste, yet we heard that the Europeans are using MOX fuel because it's more environmentally fair and better for their environment, so.

MS. WHERLEY: Okay. Well, if you -- excuse me. That's -- I was assuming that was kind of a clarifying questions back and forth. If you want a comment reflected that you encourage the use of reactors as an environmentally safe disposition alternative, we'll get

that up here, too.

PUBLIC CITIZEN: Please.

PUBLIC CITIZEN: Certainly the comment about is the waste issue, the waste being considered in the EIS should be included.

PUBLIC CITIZEN: Right.

MS. WHERLEY: Yes. We have that.

PUBLIC CITIZEN: I think the fair question is about the waste generation and the consideration of it, but to say discount it, that's just an individual opinion.

MS. WHERLEY: Yeah. Right. But that's what we're capturing here is a whole bunch of individual opinions. I don't think we think we're coming out with a consensus group recommendation.

PUBLIC CITIZEN: Well, you've missed about eighty percent of the comments that have been made.

MS. WHERLEY: Okay, well, we'll catch up. We will catch up.

PUBLIC CITIZEN: You'll catch up. What a memory.

PUBLIC CITIZEN: I'm a little confused.

MS. WHERLEY: Well, the notetakers -- okay.

PUBLIC CITIZEN: May I ask a general question about the three options of immobilization, borehole and reactor use? Immobilization, somehow we're taking this

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PUBLIC CITIZEN: May I ask a general question about the three options of immobilization, borehole and reactor use? Immobilization, somehow we're taking this

weapons quality plutonium that is excess from the various sites, and we're not talking about residues or anything else.

MR. CYGELMAN: We're not talking about residues.

PUBLIC CITIZEN: Right.

MR. CYGELMAN: Besides the pits, of course, there's other metals, not in large quantities; and there's oxides.

PUBLIC CITIZEN: Right. But we're taking this and in the immobilization we're putting it in some kind of matrix, whether it be a glass or ceramic or whatever, and we're immobilizing it?

MR. CYGELMAN: Yes.

PUBLIC CITIZEN: It's not very easily dispersed at that point? It's in some kind of solid matrix?

MR. CYGELMAN: That's right.

PUBLIC CITIZEN: Okay. Now, from there what do we do with it afterwards? We can put it in the can in can, which you've mentioned, which gives us the protection of the high radiation?

MR. CYGELMAN: It provides a high radiation barrier.

PUBLIC CITIZEN: What is the other option to that? Or is the can in can the only alternative to --

MR. CYGELMAN: No.

PUBLIC CITIZEN: -- the disposition?

MR. CYGELMAN: No. With regard to the immobilization option there is one, the greenfield where you take the canister the way it's at DWPF, and you fill it up with high level waste and plutonium.

PUBLIC CITIZEN: Okay.

MR. CYGELMAN: Okay. There's one option. There's another option which is called the adjoined melter where in the greenfield, of course, we would provide our own cesium, cesium capsules. There's the adjoined melter where we would have to construct a new facility. Again we use the same type of canister but we would pipe high level waste from that -- from the tanks to that facility. So there's several variances. But the basic concept is the one you just indicated which is you have a canister and you load plutonium with high level waste in that canister.

PUBLIC CITIZEN: Okay, so we have some kind of processing --

MR. CYGELMAN: And glass.

PUBLIC CITIZEN: -- that needs to be done --

MR. CYGELMAN: Right.

PUBLIC CITIZEN: -- whether it be an aqueous or power fork or whatever type processing to get the secondary material in with the plutonium to get mixed so it's nonproliferation.

MR. CYGELMAN: In a form, right.

PUBLIC CITIZEN: In a deep borehole we're going to do processing of the plutonium into plutonium itself with no other material?

MR. CYGELMAN: That's one of the options, that's correct. The other one --

PUBLIC CITIZEN: And you're going to drop them down in there?

MR. CYGELMAN: Yeah. And the other one of course --

PUBLIC CITIZEN: You're going to make a vitrified --

MR. CYGELMAN: In the ceramic, right.

PUBLIC CITIZEN: But it doesn't get mixed with anything else? No cesium or --

MR. CYGELMAN: No. No radiation barrier.

PUBLIC CITIZEN: Right. It's just the physical depth of the hole and --

MR. CYGELMAN: Right. The barrier, the nonproliferation barrier is the geological structure between where the plutonium is and the surface of the earth.

PUBLIC CITIZEN: So in both cases this processing and in the third case there's reactors where we again do processing to make a MOX fuel.

MR. CYGELMAN: Uh-huh [yes].

PUBLIC CITIZEN: But then we put the fuel into a reactor and we gain something, we gain an energy value from it. Where the other two, we're still spending money, we're still creating nuclear waste. It may be less nuclear waste than making the MOX fuel but in the long run we have an economic value from it also.

MR. CYGELMAN: Yes. You've got to look at the total picture. As we mentioned earlier we are doing economic analyses and we do use the energy value of the plutonium as a cost factor, as a cost offset. And when we publish the report in June/July, you will see the relative value that's being used for the energy content of the MOX fuel as it's burned in the reactors.

PUBLIC CITIZEN: Now, just really quick. We have the potential right now to reprocess reactor fuel if we want to?

MR. CYGELMAN: Yeah.

PUBLIC CITIZEN: I mean, we could.

MR. CYGELMAN: We could. Okay, go ahead.

PUBLIC CITIZEN: We have the technology, we have facilities.

MR. CYGELMAN: It depends -- not commercially, though, okay?

PUBLIC CITIZEN: No, but I'm saying we could if

we wanted. The immobilization and the borehole, once that's done it takes very sophisticated types of equipment and processes to get that material out. So in the future if we decide to use that plutonium, would we be better off processing reactor fuel later than the immobilization of a borehole?

MR. CYGELMAN: Well, let me make some comments first. The immobilization technology really doesn't use very sophisticated --

PUBLIC CITIZEN: It's physical separation is all that would be required to pull it back out.

PUBLIC CITIZEN: Have you been through DWPF?

MR. CYGELMAN: Wait, wait. One thing at a time. Your point was that to immobilize you need very sophisticated equipment. In general it's not that sophisticated.

PUBLIC CITIZEN: What -- excuse me --

PUBLIC CITIZEN: DWPF is not sophisticated?

MR. CYGELMAN: Huh?

PUBLIC CITIZEN: DWPF is not sophisticated?

MR. CYGELMAN: Not -- it's the pretreatment -- wait a minute. The pretreatment is your real problem at DWPF. You've got to get -- if you get the right composition you're --

PUBLIC CITIZEN: The spout that didn't drip.

MR. CYGELMAN: Well, we've been doing the tests.

MS. WHERLEY: Let me interject a question. Was your question whether the technology to immobilize was sophisticated or --

PUBLIC CITIZEN: No.

MS. WHERLEY: -- whether it was going to take sophisticated technology to recapture that at some point?

PUBLIC CITIZEN: Recapture.

PUBLIC CITIZEN: I guess I'm saying that we heard earlier that we are not making any decision on generations in the future if we need plutonium as a future energy source. But to me it seems like if I immobilize or deep borehole it, I'm going to have a more difficult time in trying to reverse that situation than I am with MOX fuel and burning it in a reactor right now and storing it as a spent fuel.

MR. CYGELMAN: Let me answer the question very directly. This program is about getting plutonium out of it, not planning on reusing it, okay?

PUBLIC CITIZEN: But don't we have the responsibility to really consider -- I mean, we're not doing a final disposition.

PUBLIC CITIZEN: Yeah.

MR. CYGELMAN: Yes.

PUBLIC CITIZEN: That's what this is.

MR. CYGELMAN: Sure.

PUBLIC CITIZEN: That's the point.

[Several participants speak at one time.]

PUBLIC CITIZEN: Did I not hear we are not making a final disposition of plutonium as a fuel?

MR. RUDY: No. What you heard, and I can try to clarify this, the scope of this document and the scope of this work is to apply technologies which bring the weapons plutonium to the Spent Fuel Standard, and that's where we stop. This program does not preclude nor does it prejudice a future decision which you may decide to use on plutonium. Once you get to the Spent Fuel Standard, this program doesn't look at reopening the Spent Fuel Standard and reprocessing or recycling and then to do it all over again.

PUBLIC CITIZEN: But if I take action such as immobilization and deep borehole and it costs me a hundred times more, if later in the future I decide I need that plutonium, then the spent fuels, would I not do an injustice at this point making that decision?

MR. RUDY: I see what you're saying in terms of if a driver, one of the drivers that you would express would be the energy value or extracting the energy value. So that's an interesting point that how do these options take advantage of or extract the energy value either right

away or in the future is what I'm hearing you say.

PUBLIC CITIZEN: Right. That's what I mean.

MR. RUDY: And that's very important. And we don't --

PUBLIC CITIZEN: I --

MR. RUDY: Go ahead.

PUBLIC CITIZEN: I think he's right, Rudy, but I think it may be academic. If you look at the amount of plutonium that they're talking about here relative to the amount that's otherwise going to be generated in commercial reactors over the fifteen or seventeen years, it's about 2 percent of the total that's otherwise available.

PUBLIC CITIZEN: Then you go for the commercial --

PUBLIC CITIZEN: You go for the commercial first and they'll be around for thirty/forty years, so you're talking less than 1 percent. And this is probably down in the minutiae worrying about that relative to all of the plutonium coming out of commercial reactors.

MR. RUDY: And those decisions are left open and are impacted by what we would do here on the commercial side.

PUBLIC CITIZEN: This thing, if you don't go to MOX fuel you're closing the door on nuclear power for the

future. You're going to lose all the technology, you're going to lose the competence, the know-how. This was brought up in your weapons program you're going to try to keep those people. The people who knew or know how to reprocess, they're going to be gone. If we want it we're going to have to go to France or England or Russia and ask them to help us.

And I think that's a point for most people in the United States to look at -- we were the leaders, now we're going to be the beggars.

PUBLIC CITIZEN: She's still writing.

MS. WHERLEY: Sorry. I wanted to capture the idea that one of the concerns is this loss of nuclear competence knowledge as one of the comments.

PUBLIC CITIZEN: I have a comment and then a question, please. The comment is that a lot of the dialogue here and last Thursday was because of the -- and we were only dealing with the excess plutonium. The same thing with the excess highly enriched uranium. Where people really don't have an understanding of the spent fuel issue for commercial and they don't know what's happening to the nonexcess. So I think a lot of the confusion would have been cleared up had both -- had the EIS dealt with total highly enriched uranium and total plutonium, even if just background.

The question I have is how do you apply Spent Fuel Standards to immobilization and deep borehole where you don't change the chemical or isotopic composition of plutonium?

MR. CYGELMAN: Well, that's a good question. In fact we've been struggling quite a bit with it. But the bottom line is the way we're looking at it is, is the keywords is how easy or how difficult it is to use that plutonium relative to what you have in plutonium and spent fuel. By that I mean, okay, if you take the geological barrier for a deep borehole as an example, you drill several kilometers in the ground. And then the question is, okay, seal it. Now, what does it take to get that plutonium back up to the ground -- up to the surface? If it turns out that in terms of resources and in terms of time it's worse than processing spent fuel to retrieve, then obviously that --

PUBLIC CITIZEN: But you're calling that Spent Fuel Standard.

MR. CYGELMAN: Yeah, that's meeting it. Right.

PUBLIC CITIZEN: I've got a problem. Excuse me.

MR. CYGELMAN: Yeah.

PUBLIC CITIZEN: I hear that on one hand that you do this and the other hand you do that. Now -- and then we have this statement about the waste generation.

And it just seems that some of this stuff is taken out of context where you people are supposed to have put this altogether, considered this, considered that. I think that Mr. Rudy over here spoke about the discouragement of canistered materials, that it has a fairly good radiation condition that would discourage that type of thing. I think that it is -- it's not confusing to me because I do pick these things up, but I think that we just keep kind of chasing our tail a little bit.

And I think we have to realize that some of the people are here, they're trying to get something out of it, but they are not able to grasp some of this. I think we've got to settle down a little bit. And it's not only a matter of grabbing all the comments which are important to people, but it's trying to get them in the right perspective with each other again. And waste generation of MOX fuel is another element that we are not exploring even a little bit.

And it bothers me in that sense that we are getting a lot of comments. I've been in this community thing from the advisory board formation and all that. I'm not on the advisory board or anything like that, but I've been in with Dr. Fiori's comments and all that type of thing. And it just bothers me that we seem to be chasing our tail.

We hear statements from you, it's get rid of plutonium. And then on the other hand we're generating plutonium. And I understand there's a difference in grades because I enjoyed Mr. Rudy's statements and I thought -- but it's a little different situation. But you're not getting rid of plutonium, you're generating plutonium.

MR. CYGELMAN: Well, let me -- no. In this program --

PUBLIC CITIZEN: But --

MR. CYGELMAN: Let me -- I hear -- let me make a statement and then you can tell me if I misstated it or not, okay?

PUBLIC CITIZEN: Okay.

MR. CYGELMAN: We have weapons-grade plutonium and as we pointed out there is non weapons-grade plutonium, okay? This program is focused on controlling and managing weapons-grade plutonium. I do recognize what you've said which is outside of the weapons-grade plutonium there is plutonium being produced in commercial light water reactors.

PUBLIC CITIZEN: If you burn MOX fuel, what are you going to have? Weapons grade plutonium?

MR. CYGELMAN: If we burn MOX --

PUBLIC CITIZEN: In a residue?

MR. CYGELMAN: Well, if we burn MOX fuel we will end up with a residual of the plutonium that went into the fuel, okay, plus some that is also produced as U-238. But let me make -- I'll give you a chance. The point is we're making -- we're meeting a Spent Fuel Standard. With regard to this country, the opinion is that once you meet the Spent Fuel Standard and you do not reprocess -- and you do not reprocess -- then that plutonium is not available at least in the shorter ten/twenty years. If you do not reprocess, that plutonium is not available for weapons use, okay. I don't know, did that answer your --

PUBLIC CITIZEN: Well, it still leaves that point of we're trying -- the gentleman spoke at the last Thursday meeting was talking about the problem of getting the Russians to do what we want them to do and all that type thing. I think we're fooling ourselves. I mean, I grew up and I knew people and that type of thing, and a lot of people I would have liked to had them do what I would like to have them do, but they didn't do what I would have liked them to do.

MR. CYGELMAN: Well --

PUBLIC CITIZEN: They would have did something anyhow. And I just have a feeling that we are fooling ourselves, that we're saying we're going to do this, we expect you to do that and sometimes that does work a

little bit. But I think what we have to do is look more at our program and what we can do and how we can go forward and that type of thing rather than trying to tie in with somebody who is unpredictable maybe, you know. And I just am trying to justify what we're spending our time on. That's my problem.

MR. CYGELMAN: Okay. Let me try to answer your question in the following way which recognizes what you've said. We are looking at storage in the event that, one, we're not able to move forward with disposition is number one, and, two, in the event that we're able to move forward with disposition but it's at a slower rate or it's intermittent we do have safe secure storage. We are working with the Russians. The way we move forward disposition will depend to a large extent on agreements that we have with the Russians.

PUBLIC CITIZEN: Well, I'm sure that there's an element, but it's an element of uncertainty. And that's --

MR. CYGELMAN: There's no question about it.

PUBLIC CITIZEN: -- a big element of uncertainty. And if we can go ahead and do what we know what we can do the best we can do it, which is what we go to school for, prepare life and all that type of thing. I think that our perspective should be along those lines

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have been received very well.

And that's -- this has come out of all of these

ngs and everything that we're having and I appreciate

that. But I just am bothered that we seem to take things

out of context. We tak and all of a sudden we

jump on it and then it' d people get the wrong

impression. And I'm su ple are searching over

here

go

what the process is. How is this EIS process impacted as the -- looking directly at this chart with the political agreements and technical economic placements and all that related? Kind of, is this just working in parallel with the EIS process conditions with Russia and how -- for instance, the recent summit, how does that impact the EIS process right now?

MR. CYGELMAN: Okay. What the EIS does is analyze the environmental impacts of the technologies that are being proposed, okay. What the Record of Decision will do, which is a little different, it will select either one or more technologies that this country plans to move forward with in the future. When the Record of Decision is made, it will take into consideration what the Russians may do or what agreements have been made with the Russians or what possibly could be agreed with the Russians.

PUBLIC CITIZEN: So that's before or after the ROD?

MR. CYGELMAN: Well, that would be factor that you saw before the ROD to the extent that there is knowledge, okay.

PUBLIC CITIZEN: Okay. Yeah.

PUBLIC CITIZEN: My understanding -- first of all let me ask this. There is no final disposal site,

correct?

MR. CYGELMAN: That is correct.

PUBLIC CITIZEN: How then do we place the plutonium disposition discussion within that framework?

MR. CYGELMAN: That's an excellent question. What we've done is the following. We've looked at what this country was planning to dispose of in terms of the long term. What we saw was we have spent fuel that we've been trying to dispose of and we have the defense high level waste that we were planning to dispose of.

So when we started this program we said, okay, we want to get rid of this plutonium in the long term. Let's look and try to put it in a form that's as similar to what we're planning to dispose of right now. So we have commercial spent fuel that we're trying to dispose of so we said MOX fuel, why don't we look at it because what we'll do is we will put plutonium in about 4 percent concentration in reactors. What we end up with at the end of the radiation period is fuel that looks a lot like what the commercial spent fuel is but it's not exactly alike, it's got more plutonium for one thing.

And so what we've done is we've worked with another DOE department which is in charge of the final -- of the repository. And we've been asking them to do analyses with regard to what -- with regard to MOX fuel

first, what is the impact of having more plutonium in spent fuel than is currently in U.S. spent fuel.

With regard to other critical concerns is number one, and leaching in terms of would that plutonium leach out and cause a problem in the long term. We don't have any definitive solutions but the initial indications we have is, yes, we could use MOX fuel and then dispose of it very similar to the way we are planning to dispose of commercial spent fuel. We will take some extra precautions because of the plutonium, high plutonium compound, but it looks like it can be done, okay.

In regard vitrification, we've looked at it very similarly. Right now there's very little plutonium in the defense high level waste from DWPF. So we've done a similar approach, we said okay, we're going to add some plutonium to this glass. You repository people, could you give us an evaluation if we added up to 4 percent plutonium, would you be able to accept this in the repository. Now, it's very cursory. It's an initial -- it is in the final answer. But again we got an indication which is, if you keep the plutonium in glass around 4 percent/5 percent or below, it should not be a real problem. So that's how we're dealing with it. Have I -- was that --

MS. WHERLEY: Are there any more questions

correct?

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MS. WHERLEY: Are there any more questions

before we switch subjects? And I think you're next. Are there any more questions on this issue of the relationship of this action to the ultimate disposal constraints?

PUBLIC CITIZEN: In the final EIS, I've got a copy of NEPA right here, a lot of things in your current PEIS are not there. Could you tell me one by one if these will be addressed in the final or by some interim action? Effect on future generations.

MR. CYGELMAN: Well --

PUBLIC CITIZEN: Just yes or no.

MR. CYGELMAN: Well, it's hard for me to say yes or no because I think we've done it. And I know you --

PUBLIC CITIZEN: The future generation, two words, are not in that PEIS I would venture to say.

MR. CYGELMAN: And as we indicated in --

PUBLIC CITIZEN: The longest you've got is twenty years maybe. That's not generation.

MR. CYGELMAN: Well --

PUBLIC CITIZEN: What happens two hundred years from now when we run out of fossil fuels? Even if we drill a hundred -- a mile and a half into the ocean, [unintelligible] Bay's running out. I know they're finding new ones but there is a finite limit. NEPA says you should consider the impact of making energy resources inaccessible or irretrievable. And one of your objectives

in this as stated in the EIS is you're going to make them as irretrievable as possible. That's an objective.

So what is the impact on future generation? I don't mean the year 2010, I mean the year of maybe 3000. You're worried about twenty-four thousand half -- year half-life on plutonium. Let's look at the impact on people. Enough on that one.

Will you look at the alternatives? For instance, if you complete or partially complete a reactor or reactors or build new ones, they will supplant fossil fuels in generation of electricity, in any event. When you look at the reduction and the amount of CO2 in the atmosphere -- Vice President Gore signed a compact in Brazil saying we would cooperate and reduce our CO2 emissions. I don't see much evidence of that.

MR. CYGELMAN: You're right.

PUBLIC CITIZEN: Okay. Will they look --

MR. CYGELMAN: We had that comment --

PUBLIC CITIZEN: Will they look at the reduction in oil spills on the high seas or smaller spills in the rivers? The less oil you transport the fewer you're going to have. You can do this as accurately as some of the other projections where you look at statistics. Reused coal, fly ash. It's been reduced. It's being reduced more and more. The DOE budget for next year says you're

working on cleaner ways of burning coal. To me that's like a half a glass of water. Is it half-full or half empty? Are they going to develop cleaner ways of burning coal or less [unintelligible] ways of burning coal?

And the last I knew, RCRA exempted ash -- coal ash, fly ash and so forth, which exceeded their limitation of radioactivity to prevent putting it in a low level waste dump and yet the coal industry is excluded from that. They can put radioactive material, ash, in the dump. We were going to get something on cost and cost benefits and I assume they will include the cost of R&D of other plants. I saw at least one report. I'm not sure, I don't think there was --

PUBLIC CITIZEN: This is repetitious.

PUBLIC CITIZEN: -- that recommended building four vitrification pilot plants to see what was a good process. Lord of Mercy, what we've been through here at Savannah River --

MS. WHERLEY: Sir --

PUBLIC CITIZEN: -- we ought to have a pretty good handle on that already.

MS. WHERLEY: Excuse me, sir, because you're going through your list so fast, is there any way I could ask you to make a copy -- let us copy that so we can give it to the notetakers and make sure we capture that?

PUBLIC CITIZEN: I will.

MS. WHERLEY: There's a few other people who haven't had a chance to speak and we need to rejoin the larger group. So I'd like to give them an opportunity for just a few more comments and then we have to wrap up. Thank you, I really appreciate it.

PUBLIC CITIZEN: I wanted to go back to the discussion on the Russians and the need for pairing the two programs. Mr. Rudy made the comment speaking highly of the CANDU option because it did seem to have some benefits coordinating with the Russian program.

What are the barriers that DOE sees to having a closer coordination with the U.S. program including use of the -- of U.S. existing light water reactors, perhaps even to burn the Russian plutonium in addition to the U.S. plutonium? What barriers are there that you perceive and what are you doing to try and break them down?

MR. CYGELMAN: Well, you have a multi-question there. The first one is we still do not have the Canadian government's approval. That has to be overcome, okay. An important factor.

Two, the MOX fabrication would probably be either in the United States or Russia, depending on where it was going to be -- if it was Russia the MOX fuel would probably be fabricated in Russia, the U.S. would be

fabricated in the U.S. and shipped to Canada.

The other factor, of course, is shipping material into Canada, plutonium material into Canada. It could be a potential problem, but that would be addressed by the Canadian government as to whether they thought they wanted to move forward with it.

PUBLIC CITIZEN: Let me try and reclarify my point. It's that you're looking at the CANDU option as being attractive because it has the pairing relationship.

MR. CYGELMAN: Right.

PUBLIC CITIZEN: How can you take the benefits of that pairing relationship and apply it to the U.S. light water reactors to look at disposing of both the U.S. and the Russian program? What are you doing to use U.S. reactors to do that?

MR. RUDY: Andre, that's --

MR. CYGELMAN: In pairing?

MR. RUDY: Yeah. No, that's not precluded, interestingly enough. The Russians have indicated -- the Russians also, and I didn't mean to over-imply that the Canadian thing is the best thing since sliced bread, just unique options --

MR. CYGELMAN: We're planning to use VVR-1000, if that's your question.

MR. RUDY: Yeah, it's just a very unique option.

But when you look at the Russians, their statement has been they see energy value in plutonium and thank you very much we, the Russians, would like to use it here in Russia in our Russian reactors. So it would be very difficult in a political face-saving sense for Russia at this time to take its nuclear weapons and give those to America. That's one difficult thing to get over. But even equally difficult to that, Russia believes sincerely that there's energy value that they want to extract for their nation at some date using their reactors. So would they be willing to use U.S. reactors to dispose of that plutonium? Maybe.

But they see opportunity to dispose of it there in their reactors. They're interested in talking to Canada and the Canadian prime minister at the Russian Summit, in a separate meeting with Yeltsin, signed an agreement -- it's not as formal as a treaty -- to work nation to nation, Canada to Russia on this because maybe Canada can work with Russia. So they're willing to talk to them. But, you know, Russia hasn't committed one way or the other. If they were going to use plutonium, they'd prefer probably to use it in their reactors.

PUBLIC CITIZEN: Or to -- in the high enriched uranium discussions I know there are segments of the government that would advocate paying a premium to the Russians or paying them to get control of the material

instead of having it remain in Russia. Why can't the same logic be applied to the plutonium situation as well?

MR. RUDY: It might, it might. And with the highly enriched uranium there is already -- and thankfully so -- a contract. It's like a treaty but it's more economical. This country has signed a contract with Russia to buy five hundred metric tons after Russia blends it down in Russia.

So Russia maintains the sovereignty of that nation to keep their weapons material and blend it down, and then they ship low enriched uranium. There is a process that worked with highly enriched uranium. With plutonium you can't dilute it or blend it down, so we don't have the same type of industrial model that we applied to the uranium cycle. And there aren't as many nations who are on a MOX cycle as there are on a uranium cycle.

So there's some ingredients of it, but the Russians are seriously looking at the option of burning this plutonium in reactors.

PUBLIC CITIZEN: Just one quick wrap-up comment. I see a lot of momentum going towards the Canadian option because of this pairing relationship and I don't think the U.S. option or the U.S. pairing relationships have been fully explored enough, so I'd encourage you to take a

harder look at that.

PUBLIC CITIZEN: A follow on to that --

MS. WHERLEY: I've got --

MR. CYGELMAN: I think -- excuse me, but I think if you look at what we're doing in research and development and also looking at utilization of reactors, they're getting about the same amount of weight. We're not preferring Canadians.

PUBLIC CITIZEN: Yeah. A follow on to the Canadian option, they're not going to do this for free. The Russians don't have the money to make MOX. It looks like it's a U.S. tax dollar that's going to make the MOX and the energy value is going to be expected in Canada. I'd like the comment to be noted that I as a citizen, I don't see my tax dollars being meaningfully applied in that scenario.

MS. WHERLEY: I'll add that to the list. I think we need to rejoin the rest of the group. There will be more a chance to make comments in the summary session and to ask questions as well as hear what happened in the other groups. Thank you all very much.

[The breakout session is moved to another location.]

MS. WHERLEY: Can we all get together again so you all have a little more opportunity to talk to the DOE folks about the storage and disposition of the plutonium.

If we can kind of gather towards the front.

And I have a strong sense that there was more to be said before we left the smaller room. Here we have a little bit more room to spread out and hopefully some of the people that were in the other groups will join us here. And we'll just continue where we left off. So forget the wrap-up that we did and we'll just start over with new subjects. I brought the listing from where we were before and we had talked a little bit about the Russian-U.S. combined activities, the negotiations going on there, the impacts on this program and this program's impact in relationship to those activities. Are there any other comments or questions about that subject?

PUBLIC CITIZEN: Where in Russia are you dealing?

MS. WHERLEY: Did you hear the question?

MR. CYGELMAN: Where are we dealing in Russia?

PUBLIC CITIZEN: Yeah. Who are you talking to in Russia? What areas?

MR. CYGELMAN: Our primary point of contact of course is [unintelligible], but as you have heard we're also dealing on a lab to lab basis. Some of the people we're dealing with are at, let's see, Minsk, Kokcetav [phonetically spelled]. There's about five or six institutes that we're dealing with.

PUBLIC CITIZEN: Have you been to Novosibirsk [phonetically spelled]?

MR. CYGELMAN: Excuse me?

PUBLIC CITIZEN: Novosibirsk, [unintelligible].

MR. CYGELMAN: I believe so. The way it's operated, by the way, is we have the lab people dealing with their counterparts. What was the place you mentioned?

PUBLIC CITIZEN: [Unintelligible], Novosibirsk.

MR. CYGELMAN: Yes.

PUBLIC CITIZEN: Central Siberia.

MR. CYGELMAN: I believe so. I'm trying to remember the list of the names and I think that was one of the cases. And the way it's worked is we are working through the Amarillo National Resource Center who is doing a lot of the coordination working with [unintelligible] of various institutes. And what we do is actually after it's set up it works on a lab to lab basis.

And right now we're in the stage of recording some preliminary reports on six groups that we formed in the [unintelligible] studies. These cover the storage, they cover immobilization, cover reactors, let's see, the deep borehole. And we also have a similar group that's dealing with economic analysis and stabilizations, and as -- also safeguard and security.

MS. WHERLEY: Any questions or comments? I really thought there was a whole lot more energy in that room when we were there, and thank you for having it. I had concern that y'all wouldn't have enough opportunity --

PUBLIC CITIZEN: Yes, I'm joining you a little late but I think you made a comment about the deep borehole. Has that been approved for Savannah River Site [unintelligible]?

MR. CYGELMAN: Well, let me -- what we have done with the deep borehole, it's been analyzed on a generic basis. We really haven't analyzed it on a site-specific basis. So if in fact we were to select the borehole we would have to do quite a bit of analysis on the specific site.

PUBLIC CITIZEN: Well, doesn't Texas have a deep borehole already?

MR. CYGELMAN: No, to my knowledge the only deep boreholes that are in the United States -- I think they are in other countries, has to do with either oil expiration at least in this country, in Russia it has to do with disposal of some of the toxic wastes.

PUBLIC CITIZEN: You should ask that because I know a lady by the name of Phyllis Grave [phonetically spelled] and she's from Texas. And I'd like to give you her information to call her. They have serious problems

with a private company owning that particular borehole and with them putting certain things in it. And all the workers there at that plant was sick and had other complications. I would like to give you that information -- that information a little later on.

MR. CYGELMAN: All right. Thank you.

MS. WHERLEY: Okay. Any other follow-up questions or comments on that point?

PUBLIC CITIZEN: I've got one question. Last Thursday we sat here and formally discussed the nonproliferation issue and haste was a major consideration that some action need to be done as quickly as possible so that the Russians and the U.S. would ensure that plutonium, MOX grade plutonium would be nonproliferation. I guess my question is, of all of the options that you've outlined, are there any that have major stumbling blocks that preclude us from making this criteria of resolving this issue as fast as possible?

MR. CYGELMAN: On a technical level there aren't what I would consider major stumbling blocks. And other than technical there could be options that have more obstacles than others, specifically as I -- the borehole for example. There's no legislative -- there's no regime for that particular one. We'd have -- you would have to have new legislation to set up how it could be licensed,

and that could take quite a bit of time. That is not shared by -- the same extent, by either reactor or the immobilization.

PUBLIC CITIZEN: Just a follow-up on that. If I understand correctly, then, the whole PEIS is to look at the environmental impact. And what you're basically saying is here's all our options. Based solely on the environment we're going to evaluate these as potential risks -- for similar risks, ones have more risks and one has a lot less risks, and then they will all be from viable options that have acceptable environmental impacts. And then you will look at these other issues and the technical study and costs and so forth of that issue, is that correct?

MR. CYGELMAN: That's correct.

PUBLIC CITIZEN: Okay. I just wanted to clarify that.

MS. WHERLEY: Any other questions or comments?

PUBLIC CITIZEN: You mentioned that in your June/July time frame you will be coming out with the economic and political evalua- -- or economic --

MR. CYGELMAN: Economic.

PUBLIC CITIZEN: -- evaluation. You set up a -- what essentially amounts to a competitive process with utilities for the reactor option by coming out with this

expression of interest and then saying that you're going to be going out for a request for quotations. At some point if that were to be the option chosen, given that -- given that setting, what are you using as the basis for evaluating the costs associated with the reactor option? Because you have not been through the RQ process.

MR. CYGELMAN: Well, I would say that we have to make assumptions. And we really won't know, with regard to reactors specifically of the MOX, what it really is going to end up costing us when we sit down and negotiate something [unintelligible]. But of course you can make assumptions and you can make a range of assumptions -- is it working? Okay. You can make a range of assumptions where you think it bounds what you can expect from it, and that's what we're trying to do.

PUBLIC CITIZEN: How deep would the borehole go and exactly which radioactive waste would you put in it?

MR. CYGELMAN: Okay. The borehole depends actually on the location that you would do it in the United States assuming you would select it. The criteria there is to find the geological structure where there hasn't been any water movement on the geologic times. And that can vary depending on where you are in the country from a few kilometers, let's say two kilometers, to maybe 10/15 kilometers deep. So it depends on the part of the

United States.

MS. WHERLEY: Anyone else?

PUBLIC CITIZEN: Could you briefly summarize the considerations about waste with which of each of the options -- the quantity and the relative hazards connected with the wastes through the processing for each of these options?

MR. CYGELMAN: By summarizing, meaning the quantities and the nature of them?

PUBLIC CITIZEN: Quantities and the nature, including their hazardous nature, yes.

MR. CYGELMAN: Okay. Let's see. On Savannah River in term -- with regard to disposition options, if you were to look at MOX fabrication we would be -- we would expect to generate in the TRU waste, transuranic waste, roughly 306 cubic meters of that type of waste. With regard to the low level waste we would be expecting 157 cubic meters. And with regard to non-radiological waste, we would be expecting to generate 157 cubic meters of hazardous waste. These would be solvents, adhesives.

PUBLIC CITIZEN: Andre, are those annual numbers or are those --

UNIDENTIFIED SPEAKER: Wait, wait, just a second.

PUBLIC CITIZEN: Are those numbers annual

figures, so many cubic meters per year, or is that the total of the lifetime of the --

MR. CYGELMAN: My best guess is that they probably are totals, but let me double-check.

PUBLIC CITIZEN: How would they compare with the uranium fabrication?

MR. CYGELMAN: These are annual? Okay. They're annual then. They're annual. Your question was how do they compare to uranium?

PUBLIC CITIZEN: If you -- a uranium fuel.

MR. CYGELMAN: Uranium fuel cycle?

PUBLIC CITIZEN: No, the fabrication. You're --

MR. CYGELMAN: Fabrication of uranium?

PUBLIC CITIZEN: You're talking MOX fuel fabrication, are you not?

MR. CYGELMAN: Yes, that's correct.

PUBLIC CITIZEN: Okay. Compared to uranium fuel fabrication.

MR. CYGELMAN: Well, my first answer to you is I would not expect any significant TRU waste with regard to fabrication of MOX --

PUBLIC CITIZEN: For practical purposes they would be about the same?

MR. CYGELMAN: Huh?

PUBLIC CITIZEN: Are you saying for practical

purposes they would be about the same?

MR. CYGELMAN: Other than TRU I don't know why you would want to generate more low level waste or hazardous wastes offhand. I don't have the [unintelligible].

PUBLIC CITIZEN: If somebody wants to dig, I think they're in the PEIS.

MR. CYGELMAN: Well, I'm saying the fabrication process is very similar. The only thing is you don't have plutonium. Yes.

PUBLIC CITIZEN: Andre, how can you get transuranic waste and then you process it, starting with [unintelligible]? I mean would it step into that?

MR. CYGELMAN: How we get the TRU waste?

PUBLIC CITIZEN: Yeah.

MR. CYGELMAN: As far as the process you're going to get some equivalence [unintelligible] plutonium.

PUBLIC CITIZEN: And what was the volume that you had?

MR. CYGELMAN: According to this, 306 cubic meters.

PUBLIC CITIZEN: A year?

MR. CYGELMAN: That's what apparently the analysis is --

PUBLIC CITIZEN: I think that that number

probably sounds better for lifetime.

MR. CYGELMAN: Well, we'll double check it.

MS. WHERLEY: All right. The gentleman here.

PUBLIC CITIZEN: Could you get a specific answer to that and mail it to us? To me it seems like an important question and a very important answer.

MR. CYGELMAN: Sure.

PUBLIC CITIZEN: I'd rather not let it slip by.

MR. CYGELMAN: Yes. We'll -- I have your card and we'll send it to you.

PUBLIC CITIZEN: Let me ask you a question. Relative to repetitive statements in the summary part of the document that -- and one I don't believe is correct. And let me quote you. This is over and over again. I'm reading from S-20, page S-20. It says, because of the higher percentage of minority and low-income populations in certain counties surrounding SRS, the potential exist for these populations to be disproportionately affected in an accident. I've looked at a number of EIS's. This is the first EIS that I recall seeing this kind of a statement. They've always basically concluded that, that they are not able to distinguish the difference in terms of -- and there is no disproportionate results from accidents at Savannah River. Now, the other places I don't speak for. But it looked like to me that's an

incorrect statement. And we would like to hear some more about it. And then you need to see if it is; if it is, fix it and so forth.

[redacted]

MR. CYGELMAN: Okay. I think with regard to that statement we probably need some clarification. There is some clarification that is buried on page S-20. The clarification says, however, examination of meteorological data shows that the average wind flow would not expose minorities and low-income populations disproportionately. Actual expose to these populations under time of the -- under the accident scenario would depend on the magnitude of airborne releases and actual wind direction.

PUBLIC CITIZEN: May I suggest that in the final that that be reworded so that it states the whole conclusion rather than the bad part and then but; but, oh, incidentally it's not a problem?

MR. CYGELMAN: Yes. Yes.

PUBLIC CITIZEN: Let me ask another question here where you continually talk about all of these cases do not keep the population, those commitments, from the 80 kilometer population within a 100 person-rems. And apparently somebody has decided that's a level that we'll talk to these things. And where it exceeds it we'll talk about it and all the ones that doesn't exceed it, you quote the 100 person-rem. I don't understand the intent

or the basis behind the 100 person-rem.

MR. CYGELMAN: I think we're going to reexamine those.

PUBLIC CITIZEN: Thank you.

PUBLIC CITIZEN: Talking about doses, in these three places, it's probably for all of the sites you look at, you give a table of background radiation levels. Obviously they vary, but I think it would be much more informative to the uninformed public of which there are quite a number -- and I don't mean that derogatorily, but if you would give the range of background radiation level within 50 miles or whatever, just as you want, because all of them use the same number of radon, 200 millirem a year. And that could vary from one house to the next. It can vary from one yard to the next. And then if you compare the person-rems, the variation of the person-rems to the person-rems of the Savannah River Site people would be get a grasp of how minuscule this increase is.

That -- when it doesn't come out they just see, gee whiz, we're getting 400 millirems a year. And then the next page they're getting a half a millirem a year from the nuclear facility, but they don't tie the two together.

I'm just trying to let the people be as well-informed and get a grasp of this because I think we've

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tailings and 3400 cubic meters of enrichment tails caused by mining [unintelligible]. So that kind of puts it into perspective. And, of course, you guys would want to verify that.

UNIDENTIFIED SPEAKER: All right.

PUBLIC CITIZEN: Could you repeat those numbers?

PUBLIC CITIZEN: Okay. You would 340 cubic meters of high level waste glass and you would have 5 million additional cubic meters of mill tailings and 3400 cubic meters of enrichment tails.

PUBLIC CITIZEN: You're comparing oranges and apples.

PUBLIC CITIZEN: That's just saying -- you know, that's what you would have if you didn't have a MOX fuel option. That's --

MS. WHERLEY: Wait, wait, wait. We've got -- please say that again.

PUBLIC CITIZEN: Yeah, I'm sorry. If you didn't have a MOX fuel option that's what you would expect from a uranium fuel cycle. That would be the waste generated if you did not go the MOX fuel.

MR. CYGELMAN: This would mean [unintelligible].

MS. WHERLEY: Before we go on from this, is that -- is your references and quotes, and maybe you can make us some copies so we have those. We can -- thank you.

Okay. There was a hand over here.

PUBLIC CITIZEN: This is a ' sim

many y

you went the MOX route would you estimat

material that's in this EIS?

MR. CYGELMAN: Well, what we'r

fifteen years of reactor radiation under MOX fuel.

PUBLIC CITIZEN: I just wanted to follow up on that question. Now, when you say it's going to take ten years for the fabrication and fifteen years to burn the fuel, now, what do you mean? Do you mean in that fifteen years you're going to s plutonium or do you mean in that fifteen y ng to convert weapons

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fuel fabrication in parallel with the irradiation to keep the size of the fabrication facility down. So in summary what we mean is, as I said earlier, if we had to build a capability in this country we would start, at the earliest, fabricating fuel six to eight years. We would then get an accumulation of one or two years of MOX fuel at the minimum before we start the irradiation. And we would start irradiation and irradiation would last maybe fifteen years. It depends on the reactors. It's very dependent on the number of reactors. It also depends, as we mentioned earlier, on the what the international environment is.

PUBLIC CITIZEN: I'm sorry. I don't think you understood my question.

MR. CYGELMAN: Okay. Let's try again.

PUBLIC CITIZEN: The core of the question was you said you were going to burn plutonium in fifteen years.

MR. CYGELMAN: Yes.

PUBLIC CITIZEN: Now, what does that mean? Does that mean that plutonium is going to be gone in fifteen years?

MR. CYGELMAN: Oh, okay. I'm sorry. What it means is that the MOX fuel, the plutonium in the MOX fuel is converted to spent fuel in about fifteen to sixteen

years. At the end of that period there is still plutonium in the spent fuel just like there is in commercial. There is a high level of plutonium in the spent fuel, however, because you started out with plutonium to begin with, okay. But roughly, depending on the fuel cycle, roughly you would burn up or actually destroy about six/seven percent per year. It depends on the reactor, it could be higher. So let's say you had three years -- if your cycle was three years from the original amount, you would destroy 21 percent, right. In the meantime you're also building up some of the plutonium. So on the average at the end of the cycle you could be about at 30 percent, 25/30 percent of the original amount that's actually left destroyed. Does that answer your question?

PUBLIC CITIZEN: What about the isotopics? What's your input of the isotopics?

MR. CYGELMAN: Okay. On the isotopics, obviously it changes. I mean, you go from a weapon based plutonium which is roughly, oh, let's say, in the ninety percent, ninety-three/ninety-four percent Plutonium 239. And then depending on your irradiation cycle if in fact -- obviously the longer you work the more you build up Plutonium 240, 241 and the more you depart from the weapons base plutonium. I would say at the end of a maybe three or four year cycle we're pretty close to what we

call a reactor grade type plutonium in which case the Plutonium 239 content, it's probably, taking a guess, maybe 75 percent plutonium and the buildup or the balance is 240 and 241. And obviously 238 which is a potent isotope would be [unintelligible] to how weapons-usable the plutonium is.

MS. WHERLEY: I'll take your question in just a minute. I just want to do a general reminder in case all of a sudden everybody else comes back before we have a chance. For those of you who have a lot of questions, if we don't get to your questions especially if it's a detailed question, I just want to remind you of two things. In the exhibit hall there are what is -- the DOE calls unanswered question cards. It's an opportunity if you have a specific question that you didn't get a complete answer to today, put it on the card and either hand it in at the registration desk and DOE will get an answer to that question.

There's also a comment table in there with comment forms and pencils, so if you feel that your comments that you really want to be reflected in this process did not get totally captured here today, please take a few minutes and write them down on one of those forms. And, again, hand them to one of the facilitators or to the registration desk. Thank you. And we have a

question here.

PUBLIC CITIZEN: Yes, I'm going to follow up on a question that I asked and Mr. Rudy answered this morning, and this was relative to the pits that would be coming from Pantex to Savannah River. And he said that they could either be surplus plutonium or they could be war reserved plutonium. Okay, I understand that. But basically this EIS that you're looking at is basically a nonproliferation or a perception of nonproliferation objectives. I think it's very unwise to store both those that are to be returned to the war reserve, should they be needed, or -- and that that is surplused in the same facility in the same kind of container. And I think that's an unwise decision to approach it that way in the Environmental Impact Statement.

MR. CYGELMAN: Okay. Let me make a clarifying statement. One, the surplus plutonium would be physically separated from the nonsurplus plutonium, is number one. If it is in fact, and it can be in the same facility, there would be -- well, I have to be careful. In terms of storage the surplus could be under IAEA. There would be no mixing of the two, number one. And people that go to the surplus area would not be able to go into the nonsurplus area. So while they may be in the same facility, which is an option that we're looking at, they

are very physically separated. There's no linkage between the two, so to speak.

PUBLIC CITIZEN: That helps I think significantly in terms of the perception of what we're doing and what we're trying to do. But you certainly wouldn't want somebody to go in and find it.

MR. CYGELMAN: No. We are taking great efforts to make sure that they are very distinct. In fact one of the things that we -- we're having difficulty with is determining what in fact needs to be IAEA inspectable. So in some cases because of what may turn out to be IAEA inspection, we're actually getting -- the trucks come in two different loading areas, they're not even sharing a common loading, such that when the nonsurplus goods come in you can't tell -- you're not there to see it from the surplus.

PUBLIC CITIZEN: Okay. Now, another question goes back to last Thursday night's meeting. And it was the application of this EIS to plutoniums that are residue or scraps. And let me go to a very clean residue in carbon oxide. Is that covered or is it not covered? It's illogical if it's not covered.

MR. CYGELMAN: As I said, we have oxide but now you have -- when you go down in residue, you start looking at what percentage of the plutonium there is in the oxide.

And one of the things we have been working with waste management and EM is what in fact -- with regard to the residues we can range anywhere, the one you're talking about, from two percent up to, I think about [inaudible]. In general, whatever EM decides that they're going to stabilize and not dispose of we will [inaudible]. But overall -- well, there isn't that much of mixed oxide that would occur, but there is some.

PUBLIC CITIZEN: Significant?

MR. CYGELMAN: Well, I guess mixed oxide might be --

PUBLIC CITIZEN: I would call it mixed oxide, but let's just call it oxide.

MR. CYGELMAN: Okay. I'll call it oxide.

MS. WHERLEY: I just want to make a short announcement. The other groups are switching again, or potentially in about five minutes. So if there is anyone here who hasn't had a chance to participate and would like to in either the Pantex or the Stockpile Stewardship, you can join in those groups. I'm not sure if they're switching or going in progress, but they are giving their people another opportunity to switch. So I just wanted to invite you all to have that same opportunity. And we'll just keep going as long as there is an interest here. Thank you.

PUBLIC CITIZEN: This is to repeat a procedural question. Can you give me any idea or can you give to me as a reason on the possibility of an extension? I intend to submit written comments. Seven days is not much time to do it. I have no secretarial help, I am a lousy typist. And I'll have to bust my gut to try and get it in by the 7th, but if I do that, and on the 8th I hear there's a twenty-days extension, I'm going to [unintelligible].

MR. RUDY: Yeah. There is no extension planned. And to the degree you could get that in, handwritten is fine. And if there was any need for clarification we would call you on that, if we couldn't understand it. The Notice of Intent that established the sixty-day period did say that to the extent practical, comments received after the 7th because of mail and timing would be accepted and accommodated. So naturally through the mail process there is an opportunity for a few days for things to clear through the system. So I urge you try to do that. And again even if you only do it handwritten, that's how you should do it. If we didn't understand it, we'll call you.

PUBLIC CITIZEN: All right. Thank you.

PUBLIC CITIZEN: Yes. Could you clarify what the gentleman was saying behind me a couple of statements before. He was talking about minorities and them being

the focus of a lot of plants that have [unintelligible] community. Was he saying that it was not true that minorities, those people of color, communities are not ones that's targeted with dangerous --

UNIDENTIFIED SPEAKER: They're not disproportionately targeted in studies that I've seen dealing with that, correct.

PUBLIC CITIZEN: Well, this -- I just want to make one point. I'm from Hyde Park here in Augusta, Georgia and that's a community that was impacted. And the people have cancers and just because they're from the other side of the tracks, I don't believe you're clear about that. I say that not with hostility, but certain facts, looking at the children that has tumors bigger than they are and other impacts that we have. And we need to be careful because DOE was needed and we could resolve it as best we can in an orderly way. But people of color are impacted. And I think this meeting shows that people of color have -- have great impact in what's going on with the DOE movement. Could we do more PR relations maybe, public relations so people would know to come out so they can have some input, because I got the word like a week ago. And I will be back to this evening's session but I think people of color because we are impacted already, we could have some voice in this decision process.

MR. CYGELMAN: Greg.

MR. RUDY: Yeah. I think Dr. McLane [phonetically spelled] made that exact comment this morning. And Ernie Chaput, the Site's Deputy Manager who is here with us now, will be back this evening to talk about the Site and what kind of process does Savannah River Site in particular have to assure, you know, the wide outreach for that. So if that's your point --

PUBLIC CITIZEN: Yes.

MR. RUDY: Thank you.

PUBLIC CITIZEN: Thank you.

PUBLIC CITIZEN: Would you describe for me the technology that -- the knowledge that we have now on the deep borehole concept that you're talking about here? It sounds in the EIS like it's a fairly generic facility. We look at each site, but I don't get any warm fuzzies relative to how much we know about it and how safe it is, et cetera.

MR. CYGELMAN: Okay. With regard to the technology itself there's quite a bit of experience in regard to drilling holes that are about the size that we're talking about to the depth that we're talking about, okay. There's quite a bit of knowledge of that. The area that we have less knowledge about is in predicting what the movement would be of these materials after the holes

have been drilled.

PUBLIC CITIZEN: Well, that's the basic question. Is it going to be stable? Is it going to be safe?

MR. CYGELMAN: Well, as I said, you know, that's part of the analysis that we really don't know that until we've done some exploratory work, okay. We need to -- to put it to that. Does that answer your question?

PUBLIC CITIZEN: Yes, I guess it does. I guess the only issue then is can it be credibly considered as an alternative in the EIS or credibly weighted when the final decision comes out?

MR. CYGELMAN: Well, it's credible to the extent that the technical people feel that they have predictive tools whereby they can use to analyze it and that the -- they can drill exploratory holes to validate their tools, okay, their predictive tools.

PUBLIC CITIZEN: And is this the same as we thought twenty years ago in the Carlsbad situation, we said that hey, that's a safe geological repository for everything?

MR. CYGELMAN: I think that the borehole [unintelligible] has a lot of technical attractive features. It does have an obstacle and one of the obstacles happens to be there is no legislative regime

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existing to license that particular one. And in order to license we would get into the issues with regard to the particular moves or the migration of material.

MS. WHERLEY: I would just like to follow up with a question since your -- you've raised questions and Andre answered them about the state of technology. But do you have a -- in those questions, a comment that you would like to record for the record on your feelings about the credibility of that alternative?

PUBLIC CITIZEN: At this point in time, no. I expect I will, but at this point in time I --

MS. WHERLEY: Okay. I just wanted to check and make sure I wasn't missing it. Thank you. Someone else?

Well, if we have no more comments and we feel w have exhausted the subject this afternoon, I certainly appreciate it and I know DOE did, all of you sticking wit it and moving around and taking time to raise your questions and concerns and provide for input. I might as you if since -- you're welcomed to take a break and then rejoin the summary and plenary session, hear what the other groups did. But if you want to take a look at the flip charts, I will be summarizing these in the plenary session. If I missed any comments that you made and wan to be sure are recorded, please let me know or just spea

up during the plenary and we'll hear what the others have to say. Again, thank you very much for your participation.

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MR. LAWSON: I'm going to -- one of my responsibilities is to come back to the larger group and let's talk about some of the issues that get discussed throughout the morning. Let's start in, anybody have a comment, questions you would like to raise? Yes, go ahead.

PUBLIC CITIZEN: In terms of finishing off on the preferred alternatives there was one part you haven't addressed yet, the high explosives.

MR. WHITEMAN: Oh, I keep forgetting to. At the meeting in Pantex last week that was 90 percent of the meeting. I always forget to mention that other site. That is the one part of the whole program we have not declared A preferred alternative. It's -- out of a billion dollar a year program it's probably $5 million a year. It's not a big high-cost operation. Today the fabrication mission is at Pantex and they have huge modern facilities for that. We also have large capable facilities above Lawrence and at Los Alamos that are not nearly as large as Pantex's but are big enough for what we would need to support production in the future.

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their development program is about the same level of, you know, pressing machining and fabricating, that level of activity is about the same as what we would expect in the future for production. So --

MR. LAWSON: It would also in the high-explosives alternative or issue. Other interests?

PUBLIC CITIZEN: If he could -- I'd be interested in hearing more about your role in this whole program. I mean, personally I wasn't at the first part, perhaps you introduced yourselves.

MR. WHITEMAN: Okay. I've been -- for defense programs I've been in charge of working the stockpile management side of this.

PUBLIC CITIZEN: You're a DOE employee.

MR. WHITEMAN: I am a DOE employee.

PUBLIC CITIZEN: Okay. Forrestal Building [unintelligible]?

MR. WHITEMAN: No, I'm from Albuquerque strangely enough.

PUBLIC CITIZEN: Okay.

MR. WHITEMAN: And I've been working the stockpile management part of this, Steve Kadiz has been my twin and he's been -- he's from Albuquerque as well. And he's been working the stockpile stewardship aspect of this. And we've been -- both been working this, we both

live in Albuquerque but we've been doing this for defense pro- -- in the name of defense programming.

PUBLIC CITIZEN: Seems that one of the primary outcomes here is that there's an implication that -- or that we're getting to the point of having -- maintaining the two labs that's --

MR. WHITEMAN: Well, there was --

PUBLIC CITIZEN: ---part of the decision.

MR. WHITEMAN: Well, maintaining the three -- well, you mean about the two, you mean Lawrence and Los Alamos, yeah. The Galvin Commission, I don't know if you remember that, it was chartered to look at the labs, the future of the labs several years ago. They recommended that DOE should seriously look at getting out of Livermore for the weapons business. And that comes up periodically. In fact, when we were here for scoping meetings last summer it was still potential alternative in this PEIS was to look at removing the weapons mission from Livermore.

Part of the -- what changed between last summer and now was the position the administration took on negotiating comprehensive test ban treaty. And that the -- one of the assurances for entering into a comprehensive test ban treaty was that we would have a Stockpile Stewardship program with peer review of the two laboratories to compensate for -- you know, one method of

compensating for a lack of underground nuclear testing. So the CTBT negotiating position sort of sealed Livermore being a part of the program for some -- certainly as far as we can see in the future.

Half of the weapons systems in the stockpile to date are Livermore design. And so even though we'll be dismantling a number of those over the next five years, from a practical standpoint it's important to us in Albuquerque that Livermore is there to help and assist in that dismantlement. So certainly over the next five years they have a very key role to play.

PUBLIC CITIZEN: And the decision on the national ignition facility, what were the key factors in that?

MR. WHITEMAN: Well, the decision was made before we entered this PEIS process. That the preferred alternative site would be Livermore. So going into the PEIS, the preferred alternative had already been identified for that one though we looked at a -- located at four different sites. The principle reason for selecting Livermore was that that's a -- the national ignition facility is the next generation facility for the initial confinement fusion program and most of the high energy laser technology associated with that has been at Livermore over the years. So it was a natural outgrowth

and continuation of that.

PUBLIC CITIZEN: Was that a decision or a preferred --

MR. WHITEMAN: It's still a preferred alternative.

PUBLIC CITIZEN: Is the time table for that the same as it is for the EIS?

MR. WHITEMAN: Yes.

MR. LAWSON: Any other concerns?

MR. WHITEMAN: What is your sense around here relative to the stewardship and management of PEIS, do you sense the people are comfortable with where it's gone or is there something uncomfortable things people have?

PUBLIC CITIZEN: I'm not at all in touch with what people tend to think about that. And because of the -- these alternatives being available, my interest is sort of met by this. But I couldn't say what other people --

PUBLIC CITIZEN: The issue around here is jobs and the impact related to jobs of either of these -- any of these three PEISs, is somewhat limited. So perhaps in a different era where people weren't so concerned about jobs there might be more interest in these just for their --

MR. WHITEMAN: Well, and what we're doing on stewardship and management, we're not leaving any site,

you know, we've left three sites in the last few years, Panelles, Mount and Rocky, and you know, going into this process it wasn't really clear on whether we would recommend leaving some other sites as well. But --

PUBLIC CITIZEN: Is that something you avoid or you don't think of that?

MR. WHITEMAN: Well, we let the -- we let the numbers speak for themselves, you know, and the programmatic risk and the environmental impact. So we didn't go into this with any preconceived outcome relative to that. And frankly, I expected once we -- you know, that I expected the numbers would argue for closing at least one of the plants when we entered the process but it didn't. It said that, you know, the right answer is to rightsize things, you know, appropriate to the word for where we're at. And that was the recommendation from the department.

PUBLIC CITIZEN: Yeah, it was an interesting change from, what did we call it, Complex 2000, what was it?

MR. WHITEMAN: Complex 21.

PUBLIC CITIZEN: Complex 21, yeah, that's right. Well, the focus there was so much consolidation and everything like that. And it -- consolidation seems to -- I guess by virtue of the numbers, units have been dropped

as an end in itself.

MR. WHITEMAN: Yeah.

PUBLIC CITIZEN: Consolidated where the numbers --

MR. WHITEMAN: Yeah. Back -- before we, you know, we did a lot of programmatic analysis independent of PEIS and before the PEIS started looking at, you know, what direction the program might go. And we knew programmatically that it was feasible to -- well, the -- the phrase that was coined is three plus one. That, you know, three labs plus a weapons assembly facility in Nevada could do the whole job. And the question was but was that the right answer. And the analysis we've done says, well, yeah, you could do that, but it's not the right answer.

PUBLIC CITIZEN: I'm interested in what you might -- what might be talked about for options with the rest of Y-12, you said there was 15 to 20 percent of it would be used. Would that just be --

MR. WHITEMAN: Yeah. We're going to be downsizing the footprint there to -- well, actually the operating space will be about literally 11 percent of the historical footprint. We're going to keep one of the buildings there in a cold standby condition, as a contingency that we could reactivate and add capacity in

it very cheaply if we needed to. And that will -- so the operating space will be about 11 percent and then a few more -- I've never calculated this exactly. My guess is on the order of it increases that to about 15/16 percent of the historical space counting the contingency cold standby capacity. So the other 80/85 percent of the space there will, you know, we've got to work out what to do with that. It -- if there's alternative missions or alternative programs, that would optionally be the ideal use, of somebody else moving in and moving work in, but as you well know, there's not a lot of people out there with work that they're looking for a home for. Most of it already has a home and people are holding onto it very tightly. So --

PUBLIC CITIZEN: Do they have a future uses study or a --

MR. WHITEMAN: They're just working that now. You know, it's only been in the last few months that they've identified how they would downsize. So it's -- the next step is to do exactly what you're talking about. I know there's an organization there in Oak Ridge that DOE is leading -- I can't remember the name of it -- but it has to do with industrialization of the excess facilities there, because K-25, the large gaseous diffusion plant was decommissioned several years ago and it's going through,

you know, D&D and so on right now. And there are a number of private companies I know that are participating in that -- in that activity and so I would expect that they would build on there in Oak Ridge that -- that work as they look at Y-12 facilities.

PUBLIC CITIZEN: Yeah, one company is building boxes, I mean, using --

MR. WHITEMAN: Yeah, I know.

PUBLIC CITIZEN: I think they're even called K-25 boxes. Something like that.

MR. WHITEMAN: Well, in some -- Manufacturing Sciences is the company. They're at the edge of Oak Ridge that -- and they just built a new plant there to -- yeah, they make waste boxes out of contaminated equipment out of K-25. I know they've got a large contract to do that right now. Yeah, the K-25 portion of that may have that in their name, I don't remember. But it's Manufacturing Sciences is the -- they're on the east end of Oak Ridge.

MR. LAWSON: Anything else? Our 25 minutes has passed so I know that there's probably a lot of people in there and you're welcome to join them or Pantex or stick around for a lively discussion.

PUBLIC CITIZEN: I think it's fascinating that in the last few years Department of Energy is making some of it's most significant policy decisions in -- you know,

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in the context of Environmental Impact statements. And -- I mean --

MR. WHITEMAN: We do it more than most any federal agency.

PUBLIC CITIZEN: I mean, this is -- I was -- grad school in energy policy. Nobody ever said you determine your departmental policy on the basis of your environmental impact statements. And I'm not saying it's wrong, I'm just saying it's --

MR. WHITEMAN: Well, it --

PUBLIC CITIZEN: It's interesting that so much is happening in the context of EISs.

MR. WHITEMAN: But there's an awful lot that's happening outside as well. I mentioned in that one chart, you know, everything that's happened with the Department of Defense planning, nuclear posture review, et cetera over the last couple of years the START I, START II, the CTB Treaties are very strongly influencing policy. And we've done a lot of planning within the department that's -- that preceded -- preceded with a PEIS. So in the reports here, you know, are looking at this from a cost schedule risk standpoint as opposed to an EIS. So I think they're companion efforts. But yeah, certainly there's more decision-making through the NEPA process thar you might see in other organizations.

PUBLIC CITIZEN: Certainly more visible.

MR. WHITEMAN: Yeah.

PUBLIC CITIZEN: Yeah.

PUBLIC CITIZEN: The other, you know, DOD and, you know, forest service and these people they do EISs but I don't think anybody does the big programmatics, you know, like we've been doing.

MR. LAWSON: Thanks very much.

PUBLIC CITIZEN: What is your plan for releasing cost data relative to the options?

MR. WHITEMAN: I'm glad you asked. These reports are out there on the table. If they've picked them all up, leave your name and we'll mail you one.

PUBLIC CITIZEN: Okay.

MR. WHITEMAN: But this shows -- the larger of the two shows all the source data, project descriptions, cost schedules, and so on. And then this shows recommendations, conclusions, schedules, implementation schedules and so on.

PUBLIC CITIZEN: Well, I didn't see any out there but maybe I didn't look for them. I'll go look, you know.

MR. LAWSON: Stewart's just went to look.

PUBLIC CITIZEN: I guess I'm curios in terms of the -- of course, I'm basically, you know, might as well

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[illegible] that to establish a

[illegible] all of the capability of TA-55. You know, in

order to do that -- well, you've got two problems. I

ou know, I know you're

ay. But I think it will

consume most of the capability of TA-55. And you'll have

to construct that while -- as Los Alamos claims they hav

all these vital, ongoing plutonium missions. Because in

fact that was -- I kn ier numbers I saw said,

oh, you know, we'd ha k at TA-55 even if I

built the River. And there was

investmen

MR. WHITEMAN: Any ideas?

PUBLIC CITIZEN: Uh-huh [yes].

MR. WHITEMAN: What you're -- I'm sorry, we're getting back into [unintelligible].

MR. LAWSON: Well, there are some other people who will be coming down in a few minutes. The Pantex people just broke up.

MR. WHITEMAN: Okay.

MR. LAWSON: Were all three of you there this morning when Earl gave his presentation?

PUBLIC CITIZEN: Uh-huh [yes].

MR. LAWSON: There are some people, maybe 20 people who came who didn't hear his presentation. So I want to make sure that they got, not the whole thing over again, but at least a summary of it. We can just pick up and go into discussion of issues that are important to you if you want to have Earl put this -- do you want to put this back up again so we can have a frame of reference.

MR. WHITEMAN: Yeah.

MR. LAWSON: So because we have a small group here we can keep this as informal but as direct as you'd like. So, I just -- I'm going to be making a few notes because I have to report back some of the things that were talked about, but I'd certainly open it up and let you ask any questions that you might or any comments that you'd

like to make.

PUBLIC CITIZEN: I think I'll start. I'm a lay person. I'm here for understanding. I'm here on a search-and-find mission. I am from Savannah, Georgia. My concern in all of this is, is I work with babies. I work with birth defects, I'm substance abuse and I know the range, the broad scale that substance abuse has on children and I'm looking at that aspect as being in the -- this field also, the Savannah River Site being the reactor site. And what down the line how will it affect our children, how will it affect the births, you know. This is what I mean. I'm on a search-and-find mission today.

MR. LAWSON: All right. When people get settled in we can address that issue. We're going to -- since this is a relatively small an intimate group I'm just going to open it up for questions or comments that you have to make. We have a note taker who's going to take more detailed notes, the court reporter's going to get most everything by verbatim. I have to come back and make all the reports so I'm going to keep a few notes on this flip chart here. But we'll take it wherever you'd like to go. One thing that maybe helpful is if an issue was raised as you have and the question of effect on children in the future and maybe we can deal with that issue and if other people have some comments to make about it we can

deal with that before we go on to some other issue.

Do you want to restate your concern here so we can --

PUBLIC CITIZEN: My concern is birth defects toward our children, the future children. I've read in the past how different radiations has affect births, pregnancies of mothers and I would like to know the same situation in this area.

MR. LAWSON: Okay. Earl or Jay, any thoughts on that?

MR. ROWS: Yeah, I mean, I can talk about it. I mean, it's true that radiation can, you know, cause cancers, can cause birth defects. And I would just point your attention to -- I hate to just throw you to a document but appendix E of our document discusses all the human health effects from radiation, okay. So that's where we discuss it, and the way we set up the EIS is we're trying to make decisions on -- for a given mission of where to site, you know, the mission, i.e., you know, the one thing that's considered at Savannah River is producing plutonium components. The other site we're looking at is Los Alamos out in New Mexico. And we essentially have to compare that site against this site as to -- from an environmental impact, what are the environmental impacts of doing that mission at Los Alamos,

what are the environmental impacts of doing it here at Savannah River. So, again, we look across the whole gambit of environmental impact, you know, how it's going to effect water, how it's going to effect air, and we also look at what the radiation effects are going to be. And the data is in the EIS, I can sit here and tell you numbers and things like that.

PUBLIC CITIZEN: No, I don't want that.

MR. ROWS: But that was our approach and it's for the general population producing plutonium components is a very, very low-risk mission. There's not a lot of radioactivity emitted when you do that mission. So essentially we don't see in our analysis any effects to the population from this.

MR. WHITEMAN: Yes.

MR. ROWS: And I can cite you numbers.

MR. WHITEMAN: Let me comment. My wife and I have two grandchildren in elementary school and the third may go very soon, and it scares us to death what our kids are -- you know, are seeing these days in the schools. You know the drug problems, I'm sure what you see every day, the violence. You know, it scares me to death to see what those poor boys are going through. Believe me the last thing I'm concerned about with those boys growing up is anything, like, related to radiation. And we certainly

live in New Mexico at a very high elevation so the radiation levels from the sun are much higher than here in Augusta. But believe me those radiation levels are not what I'm concerned about with those boys. I'm concerned about what you see in the schools as well.

PUBLIC CITIZEN: I have a broad spectrum of all of that but right now we're dealing with this aspect of it and this is why -- where my concern lies because we also had an outburst, I think it was Cumela [phonetically spelled] in Savannah, the explosion in Savannah. They're telling everyone, well, there was no harmful effect. I really don't believe that. I really don't believe it. Whether it's minute or what, I don't believe it was none. And this is what they're trying to say like, I think what you're trying to tell me there now, it's such a small scale of effect from this wherein the crimes in school, the drugs and so forth. But I think enough different companies, like we have Cumela in Savannah. We have Union Bag in Savannah now. We have Savannah River Site, all of this putting pollutants in the air, I still think it's a concern in reference to our children.

Another thing is you said you live in Mexico in the high elevation. They have a tendency to always put it in the low income areas, also. This is with children that don't -- they don't practice prevention, health

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prevention, no how. So all of these pollutants in the air is a downfall for them in that way, also. So out of all of that this is just adding another stringent toward the downfall of the youth today and I don't think we need anymore.

PUBLIC CITIZEN: We have friends in Los Alamos, too, and we're concerned about them.

PUBLIC CITIZEN: Yeah.

PUBLIC CITIZEN: And they live on a reservations. And it's a dump in their yard.

PUBLIC CITIZEN: Okay. This --

PUBLIC CITIZEN: So you can't say they're not affected at all.

PUBLIC CITIZEN: Could I just piggy back on that? I'm just curious is there additional government policies that certain demographic groups as being less valuable, more expendable, whatever the term may be in, you know, humane terms, as opposed to other populaces with regard to institutions like SRS?

MR. WHITEMAN: No.

PUBLIC CITIZEN: Two things, Barry. I'd like to -- I'd like to go back and give you my sentiments on the note you read a minute ago that our concern is jobs only. It's not. My judgment, it's not jobs. I want a viable, technical facility that is capable of moving into whatever

any real harmful effects. We have a school of thought that doing what we're getting ready to do is not going to really create a significant impact that we need to deal with, but we from Chatham County, who has been cited as the highest county -- the county with the highest incidents of cancer, we're concerned around that so our question becomes, how does the differing schools of thought get factored into the analysis in a way that, at least, we can see that that has been considered? Because as you know Dr. Alice Stewart has a different view on exposure to radiation and its effects. So is that kind of scientific research being integrated so that you are looking at sort of a balanced view or differing views to come up with your final view. And I want to say something, also, because I want this on the record.

This has happened three times now since we've been here today. When we come into the discussion and we bring our concerns as trite or minute as they may be, I see a few scientists -- a few scientific-oriented people, a few old hats who have been around here promoting SRS actually get up and leave the room. And I don't know if that's a function of us asking questions at such a mundane level and it's just too elementary for you or it's on a topic that you're tired of hearing or whatever.

But we're feeling a little bit put off because

that -- we do read body language, and this is not a part of the PEIS but we -- this is a part of public involvement. And when you invite the public you're going to have those who have been retired from the plant, those who are retired scientists, those who have opposing views, those who are just simply searching for answers. And certainly I don't want to continue to bring community people into this process if they're going to feel disrespected by the kinds of concerns and questions that they're raising. Because they're valid.

We don't know the answers and we have not come here prepared to say, you know, this is the final recommendation. We came in search of answers. So if our questions tend to be somewhat elementary than the other folks, please excuse us. But we are simply searching for answers that will enable us to be able to look at this picture, not necessarily in a negative way, because there are a lot of negatives out there and they're certainly trying to drag us in.

And what we're trying to do is to be as neutral as possible and to try to gather all -- because that's a part of the so-called scientific process is you gather all the information possible so that you can make an informed, you know, summary of at least what's going on. And then you'll be able to say to the Department of Energy, well,

based on what we have heard, what we have seen, what we have gathered, this is what our position is. Because we are new -- we are new kids on the block.

MR. LAWSON: Let me just say from my perspective, I haven't heard any of the questions that have been asked today as being too simplistic. No more simplistic than any questions that we've heard in other places around the country, so you shouldn't feel that.

PUBLIC CITIZEN: We just noticed some people get up and leave the room as soon as we came in or as soon as we asked the question. They're gone. We're like, okay, are we out of order or -- we just wanted to do a little reality check.

MR. LAWSON: Sure. I don't know why people just left now, but I do know that we did have a couple of people who left an earlier discussion we have too. So I mean either draw whatever you want in that but I understand what you're saying. And no question I've heard has been too simplistic.

PUBLIC CITIZEN: Because really we are just seeking information to help us.

MR. LAWSON: Sure. And that's why the Department is here. Okay. Now, you -- did you --

PUBLIC CITIZEN: Yeah, please, I had to go off on that because, I mean, it's just happened so many times.

MR. LAWSON: Well, the question was, are there different schools of thought and are they taken into consideration.

PUBLIC CITIZEN: Into the analysis that's made.

MR. LAWSON: Earl?

MR. WHITEMAN: Well, I thought there's a lot of schools of thought and opinions relative to radiation exposure but we have to deal with what's the generally accepted scientific positions in the United States, and that's what's reflected in our analysis. But I know there's -- I know there's many different opinions.

MR. ROWS: But are -- the approach we take is the most conservative approach with regard to low level radiation doses. Okay.

PUBLIC CITIZEN: More specifically the approach we use is the International Completion of Radiation Protection. And so it's an international consensus group that has gotten together to review all the data including that of Alice Stewart and others. And put together a position in what we call a dose conversion factor. Once you calculate the doses due to release of radioactivity in air and water an uptake from those sources that then this dose conversion factor derives from this ICRP report. And there are a number of ICRP reports available. The last -- one of the latest ones is ICRP 30. There's also another

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have) assessing the

effects of -- bi l eff ionization radiation,

and how you ther ate a a health effect,

whether it be a cancer, a mutation, whatever necessary.

MR. LAWSON: did you have a follow-up question

over here?

PUBLIC CITIZEN: Well, it's just kind of

something that has occurred to me. I know in these things

that you have all kinds of projections about cost and wh

you're going to go on And I

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MR. WHITEMAN: Let me just comment. The PEIS we tried to avoid making statements of this is a safe level or this is a safe, because I know everybody has a different perception of what's safe and what's not safe. So we wouldn't presume to judge for anyone what is safe and unsafe but rather try to provide the basis in terms of numbers and facts and let people make their own judgment.

I think it's important to always remember -- I know radiation is a subject that is always utmost concern to people -- but it's always important to remember that, you know, as we stand here and live on earth that we get, depending on which part of the country you live in, on the order of 300 to 500 millirem each year of radiation.

Every time you go to the doctor and get an x-ray you get an additional radiation; go to the dentist; every time you fly in an airplane you get a higher level of radiation than if you were standing here on the ground. So there -- the human race has always been exposed to radiation from natural sources, from the sun, from the soil and so on. And so you always have to look in the context of -- one of the things that always helps me in this context is, is the additional amount of radiation we're talking about very much different than the difference between living in Atlanta versus Washington, D.C. versus Philadelphia.

And if it's generally in the same sort of difference that you'd see, just on living in different parts of the country, to me that says it's not a large risk. If it's something that's graded what I would see from living in different parts of the country and that might be something that I would want to know more about. But we wouldn't presume to say to anybody, you should accept this because it's safe, because you're the only one that can judge what is safe for you.

PUBLIC CITIZEN: Well, even those doctors and dentists now have machines that are a lot safer than they were --

MR. WHITEMAN: Sure.

PUBLIC CITIZEN: -- 20 years ago. You have a lead apron offered you, hopefully, and that you --

MR. WHITEMAN: But it still is -- the radiation going to your tooth to make that x-ray is still radiation.

PUBLIC CITIZEN: Sure.

MR. LAWSON: We have a question here and then one over here.

PUBLIC CITIZEN: Okay. My question concerns with the weapons. The fact is that all -- this impact statement deals with weapons and they are the spent rods, the spent fuel from weapons which is a pretty highly volatile source of plutonium. And these are the things

that we're really concerned about. This is what is going to affect us. This is things that are in the environment the transport, the storage, even to the point that it has got to this point that we have so much of this spent fuel and know that we're here as a -- you know, the -- as the stewardship over this, where it's going to be at, and how are we going to deal with it from that perspective I find that it is sort of out of control, you know.

I mean, y'all -- I mean, y'all have let this get sort of out of control. Now, it's like a check. There's no check and balance here. I mean, we're taking this into consideration yet I know the program is going to go on. Y'all have -- y'all have already made up the decision that this has to be disposed here, this has to be disposed there. Well, we thinking well, we don't want no part of this. We don't want no part of this weapon proliferation or nonproliferation at all, you know, in this environment right here.

Because this is the problem, is these weapons then that's weapons of destruction. These are the things that are going to destroy the people so, I mean, what -- what you going to store it. I mean, you're going to store it or you're going to modify it in some sort of way yet these are still -- but the main reason why it's got to this point because they was going to be used for weapons

for destruction.

MR. LAWSON: So your concern is two points. One is the weapons being here and then second for the weapons that are being dismantled, whatever may be remaining from the weapons being here, both of these?

PUBLIC CITIZEN: Right. Right. And all that is out of control. I mean -- I mean, why -- you know, if it wasn't -- if it had been checked from the beginning seem like -- everybody said, well, okay, well, let have a ball with -- with making all these weapons, for what? Who was we going to kill with them? We have intention of killing a bunch of people or everybody live on the same planet.

And everybody live on the same planet so where -- what was in the minds of the people who designed this plan for weapons of destruction. You know, I mean, destruction of the world, so now we have it. I mean, we're storing that. We're going to destroy the world with just storing it, destroy the rest of the population, destroy the water supply, everything. We're storing it.

This is what this impact statement is about. This is what -- where we're at right now in this day and time. I mean, from a scientific point of view we find ourselves sort of stuck.

MR. LAWSON: Yeah. So let me translate this so that we can address this. Maybe you ought to talk about

what the source of the decision for having nuclear weapons is in the first place, and then second, what the options are for either storing the weapons here or what to do with this stuff that is taken from dismantlement.

PUBLIC CITIZEN: Right. Right. And -- well, I mean, not to go on, but everything seems to deal with policy. I mean, if we had some type of impact on the policy making from the beginning then now -- it seems as if now y'all are backtracking and want some type of input from the community, when we don't really -- y'all did it behind our backs all the time and now you expect us to think y'all not going to continue to do this behind our backs, I don't know. I'm sort of stuck on, why is it like that.

PUBLIC CITIZEN: You know, that's my concern as well. I was discussing with Sister [unintelligible] and [unintelligible] earlier and they already made that decision. What's our input, how do we know this is going to count. You already did what you wanted to do without asking for permission, you're going to continue doing that but this part is just really a bunch of bull crap, we're just here.

So how we know what's going to be the outcome and is the true outcome. If we say right now we don't want no more -- we don't want to deal with this anymore,

... to take place, are you
... 's not going
want it to happen. Or it's already
going to -- hey, you're just here we
it's going to go.

MR. GAWSON: Okay.

PUBLIC CITIZEN: So I gue... g
question would be, is there a -- does the Depa... c
Energy have a preferred site and is that site ...

MR. WHITEMAN: Yeah, we do
for plutonium ... not at
PUBL...
MR. ... plan to add anything
... what ... that
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mean, is that one of the sites where --

MR. WHITEMAN: Let me refer you back to here. We plan to have some missions at all eight of these sites. In the case of Los Alamos this is -- the pit is a plutonium fabrication, we have planned to add there. Savannah River Site, the tritium facilities that are there will continue but we don't plan to either add or subtract any new missions from Savannah River. So the various missions associated with the U.S. nuclear weapons program are spread among these eight sites, and we don't plan to -- generally we don't plan to move any from one site to another as part of this. We're generally shrinking and reducing the size of what we have at those eight sites.

PUBLIC CITIZEN: Is there -- is there an effective way in which we as citizens can aggressively approach in trying to actually close down Savannah River Site and help you all focus on a particular site like, such as Los Alamos, where we can just totally do away with the Savannah River Site. Because we -- we're finding out through you alls research that African-American or low income people are the ones that's going to be accepting all the waste, you know. So what we want to do to protect our children and protect our families we want to do away with the total site.

Because even when I called the -- I called the

national wildlife, the state national wildlife, and from not only the Savannah River Site but other plants that exist along the Savannah River, that actually destroy the natural habitat along the river. And if we allow these facilities, such as Savannah River Site, to continue to exist then we won't have anything, you know. And I mean, you'll get on a plane and go back to Mexico, everybody else will go their own way, and everybody else here we have to go back to our home town, you see. So -- to a nuclear dump in a sense.

MR. WHITEMAN: This particular PEIS, I -- because we're not looking at either adding or subtracting any missions from Savannah River, if you're concern is one of wanting to close Savannah River, I'm not sure there's a vehicle for addressing that through this PEIS. I think it's something -- certainly we're responding in the Department of Energy to policy guidance laws coming from our elected officials. And I think you're probably -- your best way to deal with that is through your elected officials, through your [unintelligible].

PUBLIC CITIZEN: Let me ask this. This brochure that came out that said the Department of Energy is interested in your comments. You all are familiar with this?

MR. WHITEMAN: Uh-huh [yes].

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erim storage of plutonium p rom Pan this

same kind of document being circulated at sites

and the same thing reads, DOE is considering Los Alamos as

one of the alternative on across the board so that this

is ...

MR.

I tell you why you're

...it is is because we took this paper to mean that

referred

seven other sites are being looked at, that we are, in fact, the preferred choice.

MR. WHITEMAN: When we were here last summer for the scoping meeting on this, we identified all of the alternative sites, at that time, we were considering. And as it turns out we didn't change any of those, alter them from last summer till now. But, yeah, of the things that you mentioned there, you know, the pit fabrication is the one that's being considered as a part of this PEIS and that's the one that we've already made a declaration or the secretary of energy did about six weeks ago, that our intent or our preferred action was to do that at Los Alamos. The others that you mentioned there in terms of interim storage and long-term storage plutonium are being addressed in the other two meeting rooms here. And in those cases they have not yet made a preferred alternative selection. So those -- for those missions, that I don't know where that will be -- who knows where that will be made. Savannah River is still a potential for those others.

PUBLIC CITIZEN: Yeah, that's why we were trying to get a sense of the integration of the three activities, you know, the Pantex, the stockpile and stewardship and the disposition.

MR. WHITEMAN: Well, it would -- yeah, I think

that's why it's helpful having the three together because there is some overlap issues seen in that.

PUBLIC CITIZEN: Yes.

MR. WHITEMAN: The decisions relative to Savannah River, DOE -- relative for this PEIS -- DOE has made it's public declaration of its intent and that is to not add or subtract any missions from Savannah River. On the Pantex EIS, DOE has also indicated its intent and that is to keep those pits and the interim storage there at Pantex, not to relocate them here. For the long-term storage and disposition that's in the meeting room next door, DOE has not made any decisions there. And so -- and that won't occur until sometime in the next year.

PUBLIC CITIZEN: But --

MR. WHITEMAN: But those are the -- that's the one where there are potential decisions that would relate to Savannah River that have not been made yet.

PUBLIC CITIZEN: So the draft EIS would not have the DOE's preferred site and --

MR. WHITEMAN: Well, the --

PUBLIC CITIZEN: -- alternative decisions?

MR. WHITEMAN: The draft does not. The -- you -- DOE -- the way these EISs work, if you know what you plan to do you should tell people. But if you're not sure well, you, you know, you keep studying it. Well, in

the case of this PEIS, we determined, based on all the studies we had done or what we wanted to do, and so we told people. For the storage and disposition one next door they're still studying the matter and there's no declaration of what do we want to do. And so --

PUBLIC CITIZEN: Well, there will have to be another one after the decision is made, once it is.

MR. WHITEMAN: Well, the final PEIS that will come out this fall, at that point we have to say what we would intend to do.

PUBLIC CITIZEN: And then you have to do another EIS to say --

MR. WHITEMAN: No.

PUBLIC CITIZEN: -- what are the consequences of doing that action at the site you want to do it at.

MR. WHITEMAN: No. That would contain all of that information.

PUBLIC CITIZEN: The final PEIS?

MR. WHITEMAN: Yes. Yeah. But -- so, anyway, for two of the three DOE has made it's declaration of what it plans to do because, you know, we knew so we told people. And in those cases there was no change of new or subtract or add to Savannah River. The third one that is still up in the air and it could involve new commissions here.

PUBLIC CITIZEN: May I ask a policy question?

MR. WHITEMAN: Yeah.

PUBLIC CITIZEN: By what process do you waive strategic concerns against potential negative impact to local populations?

MR. WHITEMAN: Well, that's -- that's what this EIS is trying to do. I mean, that -- that's the vehicle the government has for addressing these sorts of things.

PUBLIC CITIZEN: I was just wondering was any particular formula, equation, process?

MR. WHITEMAN: Well, there's a -- for every area that gets looked at in an EIS, whether it's water, air, socioeconomic impacts, there's a standard way of doing that that has developed in this country over the last 30 years so that there are people who are professionals that work in those particular areas and that becomes sort of the standard format.

PUBLIC CITIZEN: But are you all working with any type of independent entity that's not in total opposition to DOE but, just in case -- you did a case study, let's say for instance, cancer. And have you ever brought -- have you -- are you all bringing out -- bringing in outside resources to say well, this is not what I'm -- this is not what we're finding.

PUBLIC CITIZEN: Independent peer reviews.

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PUBLIC CITIZEN: Right.

PUBLIC CITIZEN: Of a sort.

PUBLIC CITIZEN: Right. So it just won't be coming -- just from strictly DOE because we've been -- we've been --

MR. WHITEMAN: Well, the way we've dealt with that typically over the last decade or so, well, sometimes with sites going back 25 years, we generally tried to deal with an organization that people in the community can trust, and because, you know, I know, it's hard whether you live in Texas or New Mexico or South Carolina to trust somebody coming in from Washington saying, well, I'm from the government, you know, you should trust me.

So we try to get somebody that -- some organization that people at the local level can trust to be an independent body to overview those sorts of things. In the case -- I know in New Mexico, you know, we -- we fund the State of New Mexico's environment and health organizations. We do that sort of work for us as well as the Environmental Protection Agency.

I suspect here in South Carolina that the State of South Carolina and perhaps Georgia, as well, are funded to provide an independent view of the air monitoring, water monitoring and, you know, all those effects around here. I know the Center for Disease Control in Atlanta

has been contracted to do independent health effects studies around our sites.

So we've -- it's hard to find, you know, an organization that everyone believes is truly independent because there will always be somebody say, well, you may trust them but I don't, you know, so -- but we've hired every group that we think are credible people that can come in and look at how we're doing --

PUBLIC CITIZEN: Well, now, see, that's where the problem may be at because you all hired them, you know. I mean, we had, like, say, for instance, Citizens for Environmental Justice based on the fact that they're -- we're raising some very serious questions then you all should be able to fund us with money for us to be able to go out and find out own independent study -- own independent researchers, the individual that will research our problem for us. And then we could sit at a round table and then y'all -- you-alls side and our side can sit down and see can we come up with an answer, you know.

But just for you all to appoint us someone or say, well, I got this person here you can call him and he'll help you out. Man, that's not going to work because that's no different than you all sending out doing the independent research yourself.

MR. LAWSON: We have two other people who want

to put their oar in the water on this -- there in the back there.

PUBLIC CITIZEN: Well, I think it's worth noting that the preferred selections that are announced are not always the ones that are final choices, and that they're not even always alternatives that were in the first draft. That there is input from this -- these meetings and as an independent that makes it through the process and it gets looked at and sometimes selected, they get rewritten or there are supplements that are issued.

PUBLIC CITIZEN: Can you give us an example of --

PUBLIC CITIZEN: Some of the spent nuclear fuel in the basins, in the disassembly basins here in the recent record of decision for that, there was an additional month that -- or so longer maybe that was added and there were new alternatives that were not in the original document.

PUBLIC CITIZEN: And if there -- if you all say, for instance, you all decided to use Savannah River Site, what can we do as citizens to say that we don't want that? If you -- in the record of decision and we -- we'll -- and we don't agree as citizens with that, what proper step do we need to take to say that we're not -- what proper step do we need to take to reverse that decision?

PUBLIC CITIZEN: May I interrupt here? Are you familiar with this citizens group that was formed recently with Savannah River? They've had meetings down in Savannah that a number of you people that are members of it, are you familiar with that group?

PUBLIC CITIZEN: The Citizens Advisory Board?

PUBLIC CITIZEN: Yeah.

PUBLIC CITIZEN: Yes, we're familiar with that.

PUBLIC CITIZEN: Okay. Are you participating in that?

PUBLIC CITIZEN: Yes, we do.

MR. LAWSON: Are you suggesting this is one place to make --

PUBLIC CITIZEN: This is the place for the citizens to have a voice. Now, they've been -- I'm not a member of it. They have been able to change DOE's mind on some of the things they did. I read the minutes of the meetings, I've attended very few of them. But they meet sometimes in Savannah, sometimes in Barnwell, sometimes here, but that's your opportunity to participate at a very influential level. Now, they're your neighbors.

MR. WHITEMAN: Yeah. Let me comment if I could. The question you raised is a dilemma in a democracy, you know, of how do you -- I think it's very valuable for government organizations, whether they're DOE or whatever,

to stand up to and talk and answer questions and make sure that the people who live in the communities that are affected by the government's actions understand and have an opportunity to provide feedback. The dilemma then is of where -- you will never find everyone in a community that agrees.

I mean, there will always be somebody that said, well, I'm against that action, you know, I don't like you to build the dam or I want you to build that dam and you're not going to or I want you to do this. I think it's incumbent on the government as much as we can to make sure that we communicate our intent that we listen to people and understand their concerns and factor those into the information that we provide to the people who are elected to make decisions for the government.

But at some point, you know -- and that's why we're here is to make sure that we understand what are the concerns and issues and questions the people that live around Savannah River might have.

But you should understand as well this is a democracy and the -- we have elected officials for us that ultimately make those decisions, you know, I don't. I work for the Department of Energy. I'm responsible for making sure that I provide sound advice and judgment, you know, as -- for the things I am responsible for and that

that advice and judgment gets relayed to people who will then make the decisions.

But we do live in a democracy, I mean, it's -- I think it's one that allows people to provide their point of view but it doesn't always mean that every point of view is the one that the government will follow.

PUBLIC CITIZEN: Well, I think I've got a follow- up question. Excuse me, sister, and I'm -- I just -- two things. One is that a more narrow question is, is there a way to challenge the rod, not to necessarily change it although it may get changed in your process but his specific question is what is the procedure to challenge a rod if you feel that that decision is against your community.

MR. WHITEMAN: Yeah. Jay, can you answer that? Yeah, there is a --

MR. ROWS: Yeah.

PUBLIC CITIZEN: This is a more answer to --

MR. WHITEMAN: Yeah, and there is a process for doing that and Jay --

MR. ROWS: Essentially when the NEPA was written, you know, the legislature set up an avenue by which -- and it's really through the administrative procedure that I -- which NEPA falls under, it's kind of complicated, but essentially when the decision makes -- or

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when the government makes a decision on a NEPA document, a record of decision, any potentially effected citizen can challenge that and just file a lawsuit that DOE violated the NEPA act, and --

MR. WHITEMAN: So the --

MR. ROWS: We get sued, I don't want to say regularly, but Department does get sued and --

MR. WHITEMAN: And we win some and lose some.

MR. ROWS: We win some, we lose some.

MR. LAWSON: By this -- short of that though, isn't there -- when the final EIS comes out there's 30-day period in which, before the decision is made, extra written pressure or whatever could be --

MR. ROWS: Oh, sure. I mean, that's why we have a wait period between the final and the official record of decision is so that people can weigh in on what's in the final EIS and that may sway the decision maker in our case that's the secretary of energy and then she'll make her decision. But once the record of decision is made, really your only practical recourse to change that is through the legal course.

MR. LAWSON: I just wanted to get back to this lady's point over here, that just because something is preferred doesn't necessarily mean it will be accepted. And so that if you need -- you shouldn't just say, well,

he said it was the preferred and then all of a sudden that gets changed; if you have feelings about the preference whether you agree with the preference or you don't, it's important to weigh in in what your point of view is. Because I mean --

MR. WHITEMAN: Well, I think you should take the preferred alternative as an indication that, you know, the government didn't wait until the last minute and say, here's what we plan to do. It's based on everything we knew at this point, the consensus was, this was the decision that was most likely to be made and therefore we should tell people that. I mean, it's not the final decision but it certainly does -- the best knowledge you know today.

MR. LAWSON: Excuse me, this woman over here has been quite patient.

PUBLIC CITIZEN: Yes, she has.

PUBLIC CITIZEN: I was just wondering, I think that these information sessions are great and I hope that you take into account what people say but I must say your own graphics would indicate that you don't because this arrow for public information and involvement just goes off to nowhere.

[Laughter].

And I really wonder is that the real

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representation of how the decision is made?

MR. WHITEMAN: It certainly isn't what was intended by that. I'm not sure if the --

PUBLIC CITIZEN: It looks pretty scary [unintelligible] public.

MR. LAWSON: I missed that point.

PUBLIC CITIZEN: This arrow is not involved at all with the decision.

MR. WHITEMAN: Yeah, it just goes on forever but it doesn't --

PUBLIC CITIZEN: And that's what happens we just go on for ever and ever.

PUBLIC CITIZEN: I have -- I've been writing down questions.

MR. LAWSON: Okay.

PUBLIC CITIZEN: First off, you said to make the process simpler, I agree, but lay people like me a lot of things that you're saying, no, I don't understand because I have not read that big book. I have the simplified copy here now, I'm going home and read it. They've given me some simplified --

PUBLIC CITIZEN: Summaries.

PUBLIC CITIZEN: Yeah, the summary.

MR. ROWS: Right, 41 pages. We put together --

PUBLIC CITIZEN: The summary.

MR. ROWS: -- right, 41 pages just for people that --

PUBLIC CITIZEN: Right, just for me.

MR. ROWS: Just look at a document like this and say, oh, my god, I can't -- I don't know where to start and hopefully this gives you enough background and a good enough snapshot of what this program could do at each of the sites.

PUBLIC CITIZEN: Right. I'm learning. I'm learning so much today I need a degree in this after today. The next thing is you made a statement that Savannah River Site has already been taken off the list for any new projects there.

MR. WHITEMAN: In this PEIS --

PUBLIC CITIZEN: Right.

MR. WHITEMAN: -- we considered one thing being added to Savannah River and that plutonium pit fabrication and the preferred alternative announcement that we've made is that we would not plan to do that at Savannah River.

PUBLIC CITIZEN: That's the point I wanted to make. You decided but yet we're here in a round table but the decision has already been made, the --

MR. WHITEMAN: It's not the final -- that's why we use the term preferred alternative.

MR. LAWSON: This is a very important point.

There's a difference between in saying what the Department's preferred is and what it's final decision is.

PUBLIC CITIZEN: That's going back to what she said, okay, going back to what she said.

PUBLIC CITIZEN: Right.

MR. WHITEMAN: It's not a final decision until the Secretary of Energy makes a final decision toward the end of the summer. But if -- if we were to make the decision on everything we know today our preferred alternative is what I just said, and I don't -- you know, and we're getting public comments and input on that before making the final.

PUBLIC CITIZEN: I understand better.

MR. WHITEMAN: Yeah.

PUBLIC CITIZEN: Next one is, cancer as far as Savannah. Savannah is known to be a cancer site. By having the Savannah River Site there have you all taken into consideration the amount of radiation that flows through Savannah plus the cancer rate that we have already, do you have statistics on that side of it?

MR. ROWS: Yeah.

PUBLIC CITIZEN: You do have statistics?

MR. ROWS: That's where I'm turning right now. We --

PUBLIC CITIZEN: All right, the appendix E.

MR. ROWS: Appendix E on page -- again, this is the big one -- E-61 and E-62. Okay.

PUBLIC CITIZEN: I'm writing it down so I can go home -- I got it -- and use appendix E.

MR. ROWS: E, yeah, E-61 and E-62. What we have in there are a synopsis of the epidemiological studies that have been conducted for the Savannah River Site that kind of describe how past and present things going on at Savannah River have affected cancer mortality rates.

MR. WHITEMAN: Is it unfair to say, Jay, you won't find any information of that nature in here that you haven't seen in other documents because we have not done any new research in that, relative to that subject but we're capturing the studies that have been ongoing and done.

MR. LAWSON: Right, and these are independent studies. Again, this isn't DOE doing this.

PUBLIC CITIZEN: How old is the study?

PUBLIC CITIZEN: '79.

PUBLIC CITIZEN: That's almost 20 years.

MR. ROWS: And the other one is 1991.

PUBLIC CITIZEN: And you do have a recent '91?

MR. ROWS: Done by the national cancer institute. Okay.

PUBLIC CITIZEN: I'll go back and check that one

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out.

MR. ROWS: Right. And we have all the sites in here that say, you know, how -- you know, where you can find that, Journal of American Medicine Association, you know which publication it's in, you know, get that.

PUBLIC CITIZEN: Yeah, I --

MR. ROWS: Actually this would be in the Savannah River reading room because all the references that we used -- so --

MR. LAWSON: Before we go on, and I'm going to take your question. I have to ask a question. We're going to break at one o'clock and we could go back into the larger room for a summary. I don't know if all of you have been to the Pantex thing, you want to do that or you want to go back to the larger group. I have to know what your preferences are.

PUBLIC CITIZEN: Well, our bus is scheduled to take us home at one o'clock. That's what it's been contracted for.

MR. LAWSON: All right. So we can either go back to the larger room and if you have questions about that -- before you do, Bob, you have a question you'd like to ask.

PUBLIC CITIZEN: I would like -- this is a matter of information. There is a man at Neeses, you know

where that is?

PUBLIC CITIZEN: At where?

PUBLIC CITIZEN: Neeses.

PUBLIC CITIZEN: John Tell, yes, we know of him.

PUBLIC CITIZEN: Right outside of Orangeburg. He is given a good contract by DOE to go back and study the radiation release records at SRS. Now, they've been -- there are documents, yea tall, about every year, every quarter they report how much radiation got loose. This man is trying to reconstruct that and compile it. He's reading a whale of a lot of documents. On June the 1st, 1953 there was radiation got loose. Now, he's compiling all of that.

While he's compiling it the Medical College of -- no, MUSC, they are beginning to take that and look and seeing what effect that radiation has had. People in this area have had heart attacks, people in another area have cancer, can that be traced to radiation released by SRS. So that's what's going on now.

It's going to be another couple of years before the guy at Neeses can wade through all that stuff, but in the meantime, MUSC and Emory University are both working to see what possible health effects that radiation might have had.

One reason we have so many opinions is that no

ones been able to do a study that really pinpoints and says, this cancer was caused by radiation and not genetics or not diet or not something else. You can't get -- we haven't the data to specify any particular person's leukemia solely to radiation or solely to something else. But the DOE is getting this information to see if it will help in explaining this.

PUBLIC CITIZEN: We may never have a direct link between the Savannah River Site's radiation release and the cancer that lays latent for 15 or 20 years. But at the same time we cannot prove scientifically that the radiation from these federal facilities does not cause cancers. So we have this --

MR. WHITEMAN: It works both ways.

PUBLIC CITIZEN: Well, there was another unit. I have a card in my pocket that when I die the undertaker or whoever is around is supposed to call an organization in Seattle. They will tell him to do an autopsy on me, take part of my liver, take part of my bones, take part of something else, and send it to them. They want that -- I have some plutonium in me. They want that information to see what plutonium has done on my body. They are gradually getting more data. They finally got one body that had a lot of plutonium in it and they got the whole body. They've studied the bones of this individual. He

did not have any cancer in the bones. He did not die of cancer but he had a lot of PU in his body. Now, that's just one case. We need thousands of cases like that before we can state specifically. So in the meantime we just all speculate and we come to conclusions.

MR. LAWSON: I appreciate all your comments. Given the time I think we should go back to a larger room, I believe.

PUBLIC CITIZEN: I just have a -- I wanted to ask a brief question about the computer modeling.

MR. WHITEMAN: Right.

PUBLIC CITIZEN: How -- I don't know if the word is accurate -- reliable. How reliable under the transportation question is the computer modeling and maybe you might answer it in the --

PUBLIC CITIZEN: I'm not an expert on that code. All I can tell you is that -- and this -- maybe somebody in there on Storage and Disposition since they do more transportation. Maybe Andre or the other guy can answer that better.

PUBLIC CITIZEN: Okay.

PUBLIC CITIZEN: But essentially it's the generally accepted scientific code that's used for modeling radiation but I can't talk about how good it is.

MR. LAWSON: Okay. It's late so I just ask

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people to hustle back to the other room.

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PUBLIC CITIZEN: What is the intent of the hole, the square?

MS. FOUNDS: The square, oh. That is, if you will look at this partly, you have these -- and they unload them, but that hole is where the beams or the -- let me try this again. This is a little bit different in that the actual mockup is such that when you have the automated guided vehicle, there's a boom that goes into that hole there. And this forklift can [unintelligible] either swing this boom and swing it around and place it -- these things on here. So that's really what that is for. It's sort of a guide to place it and it's also where the boom goes in terms of up there.

PUBLIC SPEAKER: Thank you. The example didn't look like that though.

MS. FOUNDS: Yeah, it doesn't, but our video tapes do show the automated vehicle and how that boom works.

PUBLIC SPEAKER: I assume that's gama. The worker at what distance for that 6 rem?

MS. FOUNDS: The worker -- the uninvolved worker's considered to be at about a hundred meters.

That's an uninvolved worker. What you're doing right here is looking at the exposure based upon how operations are currently performed at the Pantex Site to get an overall dose to people handling it, because there are people that are going to be in contact, you know, with the containers themselves, putting them on pallets, forklifts, et cetera, to handle them to get them placed into storage. So that's what this corresponds to, whereas this corresponds to noninvolved workers, people are involved with the operation itself, and then starting to be members of the public with this one being if a person was actually at the fence line, what would that exposure be. So you're getting the worse possible of all the public.

PUBLIC SPEAKER: I guess a forklift puncture --

MS. FOUNDS: Uh-huh [yes].

PUBLIC SPEAKER: -- a forklift driver is maybe six feet away from the plutonium.

MS. FOUNDS: Uh-huh [yes].

PUBLIC SPEAKER: Now, he's going to be 6 rem at that distance?

MS. FOUNDS: I think that that's correct because you're -- remember that --

UNIDENTIFIED SPEAKER: Yeah, this is alpha.

MS. FOUNDS: Yeah. You're talking about the material itself getting out.

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PUBLIC SPEAKER: That's the whole pit getting out?

MS. FOUNDS: It was a portion of it because we took a fairly conservative case in terms of how much of the material. You have to remember that these are like balls and we were actually, you know, in the scenario looking as if it could actually almost be pressurized and get some portion of that out and then a smaller portion of it being the 10 micron range, for instance, that could actually be inhaled.

UNIDENTIFIED SPEAKER: That's not an instantaneous dose, either.

MS. FOUNDS: Right.

UNIDENTIFIED SPEAKER: That's over a fifty year period assuming that he inhaled part of the dose and would have resided there over that long period of time.

PUBLIC SPEAKER: That's not very realistic, is it?

UNIDENTIFIED SPEAKER: It's not very realistic that it would happen, but it potentially could happen.

PUBLIC SPEAKER: Yeah. The sky might fall too, though.

MS. FOUNDS: Well, actually these -- well, as I said, this is a dominant one with the exposures associated with, but the probability of that accident happening I

think is like one times ten minus a fifth, somewhere around in that. So it is an improbable one and the document goes in and looks at it as a risk perspective, which is both the consequences plus the probability of it actually happens. The document does look through that. Sir?

PUBLIC SPEAKER: Isn't the newer method of staging, it doesn't have a forklift rider on the forklift?

UNIDENTIFIED SPEAKER: There is a point that it does.

MS. FOUNDS: But there are points at which you do use the forklifts but, again, if you go and look at the videos it shows you of the things being placed, there's a boom and there are censors on the front of this boom that would stop its travel, for instance, if it was hitting up against a canister. And those 18400A's they're, what, three-quarter inch stainless steel is the inner container and a quarter inch stainless steel is the outer container. And I think Kevin can show you the mockup of one of those 18400A's. Did I get the dimensions on it right?

UNIDENTIFIED SPEAKER: Yes, but they're backwards. The inner one is the quarter inch -- yeah.

MS. FOUNDS: Okay, and then there's three-quarter inch on the other one, okay.

PUBLIC SPEAKER: I have a question. I missed --

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I've apparently misunderstood what you said. You said when I load these things I'm going to put them in a Type A container.

MS. FOUNDS: Type E.

PUBLIC SPEAKER: Type E container, okay, fine. Now, you never said I'm going to take them out of that Type E container.

MS. FOUNDS: Uh-huh [yes].

PUBLIC SPEAKER: So I'm assuming they're stored in a Type E container which is suitable for drop for 30 feet --

MS. FOUNDS: Yes.

PUBLIC SPEAKER: -- or puncture and so forth.

MS. FOUNDS: Uh-huh [yes].

PUBLIC SPEAKER: How in the world is a forklift going to ram a hole through it?

MS. FOUNDS: It's a very conservative estimate, sir.

PUBLIC SPEAKER: I just -- Bob, I agree with you.

MS. FOUNDS: We try to ban the accident scenarios and as you can see the consequences are not great and we are looking at the probabilities of those accidents, and they're not large for this particular type of an operation.

PUBLIC SPEAKER: But, anyway, to pick up the 6 rem and say that's what they're going to be exposed to --

UNIDENTIFIED SPEAKER: Less accident.

PUBLIC SPEAKER: And it's utterly ridiculous.

MS. FOUNDS: Well, I think, as I said, we go through and we analyze these things. We analyze them as conservative --

PUBLIC SPEAKER: Yeah, and that's the game that's been played with these EIS's and you're not going to change it and I'm not going to change it, but somehow we've got to put a little realism in these things.

UNIDENTIFIED SPEAKER: But that is real. In other words, that is the most credible type of action that could occur. And the probability of that accident, as Nan said, is very small but we have to report what the probability is and should it occur, what are the consequences, and that's all in this report.

PUBLIC SPEAKER: Has it ever occurred?

UNIDENTIFIED SPEAKER: Not that I'm aware of.

PUBLIC SPEAKER: Okay, how many forklift operations has occurred?

MS. FOUNDS: But the probability is, is that what we're saying, like the ten and the minus fifth is that it would not -- it would occur like once in a hundred thousand years. So, therefore, the probability of it

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happening within fifty years is, you know, not having seen that would be consistent without probability.

UNIDENTIFIED SPEAKER: Well, and we'll take the comment and see if there's some opportunity to phrase it differently in the EIS so that it puts a dose of reality in --

UNIDENTIFIED SPEAKER: We're going to get it both on the board, too, so we'll bring that up in summary.

UNIDENTIFIED SPEAKER: Let me get one more side. We've got about ten minutes.

MS. FOUNDS: Okay, so these are the -- again going back to --

PUBLIC SPEAKER: Let me ask a question. You know all those things are in the EIS, we can look at them, right?

MS. FOUNDS: Uh-huh [yes].

UNIDENTIFIED SPEAKER: I guess I misunderstood your words. Back in the beginning you said that our preferred alternative is continued operation. I don't find the preferred alternative in here. There's a proposed alternative.

MS. FOUNDS: That is -- it is a proposed, but it is also the Department saying that it is the preferred alternative. And it is not in there though.

PUBLIC SPEAKER: Where have they done that?

UNIDENTIFIED SPEAKER: It was in the Federal Register Notice, correct?

MS. FOUNDS: Yes.

UNIDENTIFIED SPEAKER: Just to clarify that again and make sure everybody -- I don't know -- so the preferred alternative is the proposed alternative and that's been in the Federal Register Notice as recently?

UNIDENTIFIED SPEAKER: When we issued the EIS we put the Federal Register Notice --

UNIDENTIFIED SPEAKER: At the same time, okay.

PUBLIC SPEAKER: Does Pantex conduct a peuter storage operation in facilities that are considered to be nuclear facilities, rated nuclear facilities and, you know, that conform to the DOE orders for nuclear facilities 6431A, for instance?

MS. FOUNDS: Yeah, there's a lot of debate about whether or not the storage facilities are a nuclear facility, but the do conform to the SARs for instance that are out there and we have --

PUBLIC SPEAKER: You have done SARs on those facilities?

MS. FOUNDS: Uh-huh [yes]. On the Zone 4 area there are SARs. And they went through an operational readiness review in order to be able to store out in those facilities. And for the past, I don't know, thirty or

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forty years, we have been using those -- the similar magazines for weapons storage.

PUBLIC SPEAKER: Plutonium vulnerability assessment.

MS. FOUNDS: Excuse me?

PUBLIC SPEAKER: You can fix -- familiar with plutonium vulnerability assessment done in November of '94? It says that operations of storage activities are continuing with a -- on the basis of a bio instead of approved safety analysis reports.

MS. FOUNDS: Actually, I mean the whole Department is going through a process of upgrading to what are called 5480 DOT 23 SARS and all of the sites have bios. They all went through and did an assessment and put up bios as we all upgrade to those DOT 23 SARS. The Zone 4 happens to have a SAR that was approved recently.

UNIDENTIFIED SPEAKER: It was approved in December '92 and they are currently going through and update the DOT 23 Standard, which I believe is on schedule to be completed by the end of this year.

PUBLIC SPEAKER: Can you put that in English? You're talking to the public now. That's what this meeting's suppose to be. Upgrading to the SARS something or other.

MS. FOUNDS: There are certain requirements in

looking at -- in any facility. You go through very much like this EIS. You look at the hazards. Obviously there are hazardous material out there. There's plutonium in what is called the Zone 4. I don't have any of those U-graphs that showed Zone 4 with us, do I?

UNIDENTIFIED SPEAKER: Uh-uh [no].

MS. FOUNDS: And obviously, as I said, the hazard out there is the plutonium and the possibility of dispersing that plutonium. From normal handling accidents there's not much of a risk of dispersing it. The greatest threat out there is the fact we also have weapons out there and you might have an aircraft impact into those weapons magazines or into those pit magazines and creating a possible dispersal accident. So what happens in a SAR is you go through and you analyze all those different scenarios, how credible they are, what the probability of an accident is, and then the consequences from those things. Very much like what we're doing here in looking at a transportation accident because that's what we would be doing to transport the pits here, and then what, you know, you're storing the pits out here, how likely is an earthquake, you know, that would potentially disperse some of the plutonium in this area.

PUBLIC SPEAKER: I was surprised we only had a few minutes to discuss, if we're moving on to the others,

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and I've got a lot of comments that I'd like to make. I guess I'm going to have to put them in writing.

MS. FOUNDS: Please, go --

UNIDENTIFIED SPEAKER: Just keep moving on. Keep going.

UNIDENTIFIED SPEAKER: You're welcome to stay.

PUBLIC SPEAKER: Are you going to -- if I stay you're going to have to hear me.

PUBLIC SPEAKER: I've got a few more I want to throw in too, Chris.

UNIDENTIFIED SPEAKER: No, we -- we've got time now. We're going to just continue on. If you feel --

UNIDENTIFIED SPEAKER: Let's just take comments, that's it.

UNIDENTIFIED SPEAKER: Yeah, just keep going.

PUBLIC SPEAKER: I'm surprised as the Westinghouse Land-Use Coordinator that I didn't know that P-Area was proposed, okay. It's probably a good idea but I chair something called the Land-Use Technical Committee and nobody came to me and said, golly, gee, we would like to put this somewhere, okay. That's the first thing.

MS. FOUNDS: Well, we have a site point of contact.

UNIDENTIFIED SPEAKER: It's also in NEVA.

PUBLIC SPEAKER: I know and I should be talking

to that person and they'll kill me 'cause I'm here as a private citizen now but --

MS. FOUNDS: No, that's fine. I was just going to say we have been interacting with the Site.

PUBLIC SPEAKER: The other thing is on your evaluation list I had a question about why you didn't discuss things in detail and why you did. For instance, the facilities in infrastructure at SRS are excellent, okay.

MS. FOUNDS: Right.

PUBLIC SPEAKER: But it says it's not discussed in detail.

MS. FOUNDS: Well --

PUBLIC SPEAKER: Are you all aware of this Land-Use Baseline Report that was put out?

MS. FOUNDS: Uh-uh [no].

PUBLIC SPEAKER: Well, I want to submit that for you all to look at and read, okay. It tells -- it's a synopsis of what the attributes of the Site are. Also, it talks about things like you were talking about with the fault line and you said it's not in a fault area. It's near a fault area, but it's capable versus noncapable and that's something you have to look at, but here it says you didn't discuss in detail. One thing is the positive, the Site doesn't have a wind -- a consistent wind

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[unintelligible], okay, so if there is an accident it's not going to head over or down to Savannah or it's not going to go over to Evans, Georgia or whatever, okay, because it's not predictable.

MS. FOUNDS: Right.

PUBLIC SPEAKER: Intrasite transportation, the railroad, one advantage of P-Area is that it's right next to a railroad classification yard, if you're using railroads. I don't know if you --

MS. FOUNDS: We're not.

PUBLIC SPEAKER: Okay. And then I had another question about the list, how come environmental justice is broken out and it's not included under cultural resources or socioeconomic resources? And having taught NEPA, we normally would put it under there and not have it by itself. And I noticed it was discussed in detail -- there are only two things discussed in detail and the rest is not. And that might be my --

MS. FOUNDS: Let me go back. One of the reasons that we selected Savannah River is because it had those assembly areas. They were sizemically qualified, those types of things. There was a large warehouse. You could have almost picked up the Pantex operation and put them in P-Reactor. So when I say we didn't discuss them in detail, we evaluated them but there was no need to discuss

hen [illegible] e the

way, then.

[illegible] you know, and okay.

but [illegible] ss

[illegible] ng it in the P-reactor. Those

are fine faci[illegible] would not have to modify ther

[illegible] reat deal of action

order to consider them, you know, you

have to construct, et cetera.

UNIDENTIFIED SPEAKER: And there's a chapter devoted just to Savannah River to discuss all of those areas. But then we come to a conclusio[illegible]t there's no environmental impact and tha[illegible] don't go into the detail[illegible] We don't need [illegible]

PU[illegible]

is misleading

UNI[illegible]

identified as having a single barrier plutonium with environmental public. Now, you know, that's a fact. Read the book.

UNIDENTIFIED SPEAKER: What do you mean?

PUBLIC SPEAKER: I'm curious what's being done to upgrade and correct that before you talk about putting more there. Also, I have the general comment that storage at Pantex is like a lot of other DOE programs that really is only interim action. It really doesn't lead to anything. These pits, you know, eventually are either going to be in the strategic reserves, stockpile management program or the disposition program, and really you're a lot better off with bringing them, you know -- my particular bias, of course, is bringing them to Savannah River where you get this energy of feeding into other programs because Pantex is not an operating plutonium site. Well, you just say, well, we don't really have nuclear facilities, we really don't have plutonium facilities. To do these other missions you need those. So my general comment is that you ought to look at putting them at a functional plutonium site, which there really only happens to be one. Also, another subject is there tritium involved in any of these pits? I don't see any discussion of health impacts related to tritium.

UNIDENTIFIED SPEAKER: No, it's part of the

disassembly, the reservoirs are taken off and shipped back to Savannah River. And we are just considering in ours the impacts of Pantex of continuing to ship that back to the Savannah River Site. Did you want me to try to answer some of your questions?

PUBLIC SPEAKER: Well, most of them are related to the aspect of nuclear facilities, plutonium sites, and in particular the vulnerabilities that are noted and if you'd like to address those, go ahead.

UNIDENTIFIED SPEAKER: Well, going back to the one -- well, let me start out with when you're talking more like a long-term storage, we're looking at it for an interim basis for the next five to ten years while you make those decisions for the PEISs as to long-term storage and those things. So basically, you know, operations are to store them until these other decisions can be made. That's one point I wanted to make. When you talk about vulnerabilities at the site, actually the pit is encased in metal. That's one barrier. The container is a second barrier. And then you have the structures that they're in that are containment but do preclude some of the accidents or some of the consequences out at the Pantex Site. So it is possible to go ahead and store those pits at Pantex. But you're right in terms of there is no processing out at the Pantex Site.

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PUBLIC SPEAKER: That's, you know, the structures are ventilated, the atmosphere --

UNIDENTIFIED SPEAKER: And that's -- they are not in containment.

PUBLIC SPEAKER: And, in fact, they're [unintelligible] out in here that the storage container, you know, is not sealed so it's not a containment barrier either.

UNIDENTIFIED SPEAKER: Wait a minute. The storage container is not sealed?

PUBLIC SPEAKER: ALR8s being unsealed the ALR8 container does not --

UNIDENTIFIED SPEAKER: They're sealed containers. And the other point is that regardless of which option we're going to the AT400-A, which have the pit which is flat, the inner vessel which is welded, and then you have the outer canister. So actually that's layers of containment there and that's what we're going to in terms of the AT400-A.

PUBLIC SPEAKER: What I'm hearing Rick say to you is that he's reading another DOE document that's not badly out of date and it's different than what your EIS is saying and what you're telling us here. And in order to go forward from here you need to take that document and to make a review against your EIS, correct and modify as

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in there. We have this --

UNIDENTIFIED SPEAKER: We have this and we'll visit the issue.

PUBLIC SPEAKER: May I make a couple of comments?

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That sounds like a significant consequence.

UNIDENTIFIED SPEAKER: But that's -- what that is is saying that twenty people in the United States, regardless of what they're doing, will over their lifetime once that group, all of them, not twenty percent of them, will have died from cancer.

UNIDENTIFIED SPEAKER: That's from natural cause. Let me comment that the paragraph is unclear. That's what I'm saying, okay. The paragraph is unclear. I know what it means -- what it should mean.

UNIDENTIFIED SPEAKER: Do you have the page number for that?

PUBLIC SPEAKER: Yes, it's on page 533.

UNIDENTIFIED SPEAKER: Thank you.

PUBLIC SPEAKER: Another comment is you claim here and also in the document of the Savannah River section fully evaluates environmental justice. And I read the two or three pages on environmental justice and there are a lot of facts, there are no conclusions, okay, and -- now, your companion EIS over here, the stockpile maintenance -- stewardship, makes all kinds of erroneous conclusions on environmental justice, okay. But you don't make none. And yet you claim you --

PUBLIC SPEAKER: At least they weren't erroneous.

PUBLIC SPEAKER: Yes, you completely analyzed them. The third comment is the comment that a large fraction of the accident analysis is directed towards airplane accidents -- airplane crash dispersing material. And you go through that at Savannah River which is very improbable and low consequence should it happen, and you consider that a bounding accident. I question whether it is in fact a bounding accident for a Class I facility like the P-Area reactor. I don't know that you've analyzed the bounding accidents.

UNIDENTIFIED SPEAKER: The bounding accident was a forklift accident.

PUBLIC SPEAKER: Okay, now then you're coming to my next point. It is the conservatism that you put in the bounding accidents are way too conservative. They need to have some credibility even though they are bounding accidents. You can't just assume like the safety analysis does everything is the worse, NEPA doesn't allow that. NEPA says that you will develop reasonable but bounding accidents and I concluded from reading it before Bob raised the question here earlier in the day that the accidents were not reasonable. They were bounding, certainly. You know, I could have said that the guys consume each of the whole -- or inhale the pit and, therefore, that's bounding, but that's certainly not the

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intent of a NEPA process. I find -- the last point that I want to make is probably the more important one to Savannah River and that is that the process for establishing the program for Pantex should be considered to be totally moved to Savannah River Site or should be evaluated as part of the Environmental Impact Statement, not to move 8,000 or 20,000 pits for interim storage to Savannah River Site.

UNIDENTIFIED SPEAKER: When you say the entire program, what do you mean by that?

PUBLIC SPEAKER: The pit operation --

UNIDENTIFIED SPEAKER: Assembly, disassembly operations.

PUBLIC SPEAKER: Assembly, disassembly.

UNIDENTIFIED SPEAKER: That's being considered in the Stockpile Stewardship EIS. We do not --

PUBLIC SPEAKER: I've not seen that as an option.

UNIDENTIFIED SPEAKER: Right, but that's considered within that EIS whether it should be -- that mission should be moved or not.

UNIDENTIFIED SPEAKER: There is a section that talks about the relocation of operations other than storage. When they did that initial analysis of alternatives they concluded that there was only one

possible place that they could relocate the operations at a reasonable investment and that was for Nevada. That was analyzed but it is not a preferred alternative.

PUBLIC SPEAKER: It doesn't matter where --

PUBLIC SPEAKER: Is this [unintelligible] that it's going to have to take place anyway?

UNIDENTIFIED SPEAKER: Just a second. Let's finish up with this question.

UNIDENTIFIED SPEAKER: We will take your comment and also give it to the Stockpile Stewardship.

PUBLIC SPEAKER: Thank you. I'm going to make the Stockpile Stewardship --

PUBLIC SPEAKER: You don't have to.

UNIDENTIFIED SPEAKER: I assumed so but, anyway, that will be a crosscutting issue.

UNIDENTIFIED SPEAKER: And before we get to your question I just wanted to check and see because we're not -- I might get in trouble with Mr. Barry in a few minutes but we want to continue this.

PUBLIC SPEAKER: I'd like to --

UNIDENTIFIED SPEAKER: Yeah, and we have -- how many people do we have still wanting to provide comments? I just want to get a feeling so I can tell him how long it's going to take? More comments, okay. I just -- good, let's keep going. Go ahead. Thanks.

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PUBLIC SPEAKER: Work chart is totally confusing to me. And how a dose rate of one rem per year at one meter at the surface of the trailer, why does that [unintelligible] affect the human dose based on geography?

UNIDENTIFIED SPEAKER: This is, again, looking at the shipment of 20,000 pits. So this is looking cumulative dose over however long it's going to take us, okay, in order to ship those pits, those the public would be getting for Savannah River a 3 person rem. The entire public. That's an additive dose.

PUBLIC SPEAKER: That's the transportation dose?

UNIDENTIFIED SPEAKER: Yes.

PUBLIC SPEAKER: All right, now, what's the natural radiation dose?

UNIDENTIFIED SPEAKER: Background radiation for people it's like a --

UNIDENTIFIED SPEAKER: We have that in the document.

UNIDENTIFIED SPEAKER: -- I believe a milligram.

PUBLIC SPEAKER: From the radon that you're getting sitting here in this room?

UNIDENTIFIED SPEAKER: That's correct.

PUBLIC SPEAKER: Now, I submit Pantex has a much higher background radiation than Savannah River. Now, you do not say we ought to move it to Savannah River in order

to get -- decrease the number of people at Pantex, did you? Get the people out of that god-awful place.

UNIDENTIFIED SPEAKER: Are you saying that this meeting -- you're saying that there is a dose at Pantex that you would average out, for instance, from having those containers at Pantex versus at the Savannah River Site, is that what you're saying because of the background radiation?

PUBLIC SPEAKER: No, I'm saying we ought to decrease the population at Pantex --

PUBLIC SPEAKER: Move over to Savannah River, hhuh?

PUBLIC SPEAKER: Yeah.

PUBLIC SPEAKER: Sounds good to me.

PUBLIC SPEAKER: I agree. Put that down. Put a double check mark.

UNIDENTIFIED SPEAKER: Moving people from Pantex to Savannah River, right? Okay, we'll get that down --

PUBLIC SPEAKER: Take away the jobs at Pantex and we'll reduce cancers, right.

[Several participants speak at one time.]

UNIDENTIFIED SPEAKER: We won't put the word deplete.

PUBLIC SPEAKER: Talking about aircraft accidents --

UNIDENTIFIED SPEAKER: But, again, you can also see here when we talk about the risks this is what we're looking at, too --

PUBLIC SPEAKER: Sunday I had occasion to go from Wichita Falls back here and that AAA plane could cause no damage whatsoever to any facility.

MS. FOUNDS: We do look at those things when evaluating an aircraft crash and one of the reasons we don't do it in detail for Savannah River is because, you're right, there isn't a lot of air traffic around Savannah River Site. So, again, you go through a screening process and because you don't have a lot of air -- a number of aircraft operations, you can, therefore, eliminate that as a very credible accident at the Savannah River Site.

UNIDENTIFIED SPEAKER: Okay, Nan, while we take just a second and get some more questions, this comment period goes to July 12th and there are copies of this available for people who have not yet seen it, right?

MS. FOUNDS: That's correct. They are in the exhibit hall. You can just go in and pick those up.

PUBLIC SPEAKER: There are copies of the record -- are the Deferred Action Notification in there?

UNIDENTIFIED SPEAKER: In our document?

PUBLIC SPEAKER: No, somebody --

MS. FOUNDS: But it's the Federal Register Notice. It's the Federal Register Notice and we can get that to you.

UNIDENTIFIED SPEAKER: Okay, so we need to get you a copy. If we can, make sure before we break up we get you a copy of the Federal Register Notice so. Okay, there's several people who want -- so, Donna, we'll need to get those name before we get out of here. Let's get your names and make sure we get you on a list to get that Federal Register. I think we have cards available to do that.

UNIDENTIFIED SPEAKER: Yeah, if you put it on a card, we'll make sure and mail a copy to you.

UNIDENTIFIED SPEAKER: Okay, now, moving on. Any other comments? Yes.

PUBLIC SPEAKER: I have a comment. It's a crosscutting issue, it should be brought up in each one. I'm past chair of something called the CSRA Planners Group which means that -- you know what CSRA stands for? The people in the area have a problem with DOE coming in saying that -- what am I trying to say? The State of South Carolina is concerned with any new project coming into the area if Yucca Mountain doesn't come about. And that really has to be addressed strongly. And I've heard it from folks in the governor's office and folks in the

area around here that before we can have any of these, that issue should be solved at the policy level, like somebody -- you were talking the policy I think --

UNIDENTIFIED SPEAKER: Of state's concern of moving additional operations here with South Carolina?

PUBLIC SPEAKER: Without their feeling that they will be a dumping ground.

UNIDENTIFIED SPEAKER: Okay.

PUBLIC SPEAKER: And that Yucca Mountain should be the dumping ground or whatever, but it's -- the issue is let's not have it stop here, and each one of these projects should be looking at the waste issue and even DWPF is not suppose to have its glass containers stay here. So that's something that has to be stressed somewhere as a crosscutting issue. I know it's not unfamiliar with you-all.

UNIDENTIFIED SPEAKER: But across all three or what -- across many, more than the three, okay. Okay, thank you. Other comments, questions, concerns? Anybody want to make a statement on the record?

PUBLIC SPEAKER: How do the people at Pantex feel about this?

MS. FOUNDS: Well, there is a large group -- we -- let me go back to our scoping.

UNIDENTIFIED SPEAKER: You want Bob Juba

[phonetic] to answer?

UNIDENTIFIED SPEAKER: Yeah, I can do that but -- okay, what is it?

UNIDENTIFIED SPEAKER: Yeah, Bob.

UNIDENTIFIED SPEAKER: The people at Amarillo and the Panhandle are very supportive of the operations at Pantex. Plutonium's been at Pantex for over forty years and, you know, weapons were a pit form. Support is unanimous among local elected officials, state elected officials, federal elected officials. Public opinion polling places Pantex is supported around 80 percent, so overall the support for those continued operations is there.

UNIDENTIFIED SPEAKER: Thank you, Bob.

PUBLIC SPEAKER: I have one other -- it's a question. I don't know the answer to it, but I found nothing in the EIS that addressed the aging of a pit relative to what happens as a pit goes from 35 to 50 years. You talk about a ten-year window, even the ten-year window is not clearly described in my way of thinking in the EIS.

PUBLIC SPEAKER: And in specific, related to that, when you look at the impacts of releases and pit failures, are you taking into account the aging of pit stockpile increasing the probability or the frequency of

failures?

PUBLIC SPEAKER: You know, that's basically where I'm going. You know, but the question -- I've heard it stated and certainly it is a case based on experience that the pits are good at peace. You know, you can store the material in there. Certainly our experience today, that's been the case. What are we estimating to take place in those units as they continue to age that would influence or cause increased frequency or increased consequence of damage? Oxidation or growth, grain growth or---

MS. FOUNDS: Okay, but one of the things is, of course, those things are sealed containers, so you're trying not to expose it so that you don't have, as you call, the growth and things like that. They were part of the vulnerabilities in that study that we done. But there is a surveillance program that is established by the laboratories to look at these aging effects and to pull containers out, open them up, look at the pit, you know, ship them back to Los Alamos for some testing and things like that. So there is an active evaluation program and it is described as part of the Pantex piece of this document that that surveillance activities are going to continue.

PUBLIC SPEAKER: That certainly has been the

case in the past when we talk about them as part of the war reserve. They are no longer, some of them, from the answer that I got to my question this morning which was surplus and which were not. They're going to be stored brother and sister right there beside each other. I doubt that the 2A program that's been set up for the weapons is going to continue to look at surplus materials as thoroughly as they're currently looking at those things they might reuse.

UNIDENTIFIED SPEAKER: Sandia is actually setting up a program by which they are going to -- and have certain milestones, et cetera, to polling those, doing a random sample of them in order to evaluate the effects of having those storage. And so there is a QA program in place for that -- will be in place for that material.

PUBLIC SPEAKER: I hope that you will in your final EIS talk to this issue, talk to and commit to whatever happens if Sandia's work finds that they are deteriorating, what do you do?

UNIDENTIFIED SPEAKER: Thanks, that's a good point.

PUBLIC SPEAKER: I have some comments that I'd like that are more crosscutting --

UNIDENTIFIED SPEAKER: Okay.

PUBLIC SPEAKER: But rather than jump around from room to room, I'd like to make them here, if that's -- is that okay?

UNIDENTIFIED SPEAKER: Sure.

UNIDENTIFIED SPEAKER: Yeah, that's fine and we'll share the ones you --

UNIDENTIFIED SPEAKER: We'll get them to everybody. We'll share them in the session when we get a chance.

PUBLIC SPEAKER: I'm not here to give a class. I'm not going to use all these but I thought I would -- and Lee has heard some of this with future environmental uses and all that so he can go onto the next one.

UNIDENTIFIED SPEAKER: Are you going to leave us a set of these?

PUBLIC SPEAKER: Yeah.

UNIDENTIFIED SPEAKER: Okay, great.

PUBLIC SPEAKER: This is a modified presentation that I gave the federal planners of the American Planning Association, and I'm the immediate past chair of the Federal Planners Division. Two weeks ago we got all the federal planners together from the Navy, the Army, DOE wasn't there as much as we would like, but anyway we had a few of the folks and we looked at future uses, that was just one of them. So I'm not going to go through the

whole thing. What I want to do is if you-all will skip past the situation, this is the main point I want to make, okay, that environmental uses -- since this is a NEPA, National Environmental Policy Act, we can expand environmental uses on federal facilities. And now I'm talking more specifically to SRS without affecting current missions.

It's my view that we can take all three of these missions and not hurt any of the environmental uses, and I'll get to that. However, you're going to need thoughtful planning. You just don't throw these things in there as you all know. And I showed a little version of this somehow, let's see. This is the way environmental planning, this is from NOSS in 1987, this is how environmental planning used to be where you protected a core of the environment, okay. And then as you went out the use intensity increased. And then as you go into the -- I call it the target, okay, as you go into the target, protection increases. And that's a pretty basic way of doing environmental -- or doing planning, excuse me.

However, at federal facilities, I haven't been to Pantex so I don't know, but I've been to Hanford, Oak Ridge, Los Alamos, a lot of the labs. But let's look a the bigger ones like Hanford, SRS and Oak Ridge. You've

got -- imagine on this map that is in that baseline report and say this is the Savannah River Site. Obviously, it's not a circle, it's got the little tail down here, but the major industrial area and say P-reactors right over here, right on the edge of it, okay. That's where you-all are thinking of putting your uses. What you can do is have that but also on the outskirts, the first buffer zone, the first part of this target, you can have types of recreation, research. This goes with this National Environmental Research Park concept that Dr. Fiori's looking at, the NERP concept you can have here. You can even have some sort of forestry or forest management. We can even have red-cockaded woodpeckers which we have onsite. Our big issue, we've got several other threatened endangered species but, anyway, in that area. Then as you go to this final one, and out here it's just farmland, okay. We've got one little town of Jackson over here and Barnwell's over here, but most of it's farmland. You can have more active environmental activities happening. Even public education. We have five or six thousand people that come to the Site per year. That can be -- my contention is, again, that it can be increased. And I just mentioned basically what the environmental uses can be, a lot of technology demonstration. Even associated with these projects that are coming we can demonstrate

ways of reclaiming environmental -- or reclaiming land back to "clean level". Natural resource land, but again I mention these, too.

PUBLIC SPEAKER: I had a question about the --

PUBLIC SPEAKER: Yeah, sure.

PUBLIC SPEAKER: -- the previous slide.

PUBLIC SPEAKER: Oh, yes.

PUBLIC SPEAKER: I was -- I didn't quite understand what that was saying. My view of the way the land is used is that the closer you get to the core nuclear facilities and the nuclear materials the protection increases. I've always felt that way. And that arrow shows that it's just the opposite. And I would be concerned if people might get the impression that --

PUBLIC SPEAKER: That's a good point.

PUBLIC SPEAKER: -- that the protection is good.

PUBLIC SPEAKER: Different kind of protection, environmental protection, okay. The protection that you're talking about is --

PUBLIC SPEAKER: All environmental protection.

PUBLIC SPEAKER: -- safety security.

PUBLIC SPEAKER: Okay. I see.

PUBLIC SPEAKER: I'm talking about multiple environmental uses, but, yeah, I didn't mean to make it like Wackenhut is stronger out here and not here. That's

our protective guard.

PUBLIC SPEAKER: Chris, help me get to where you're trying to get to relative to these EISs.

PUBLIC SPEAKER: What I'm saying is that Savannah River --

UNIDENTIFIED SPEAKER: I hear what you're saying in terms of the program, but that's --

PUBLIC SPEAKER: Savannah River can take these projects and it won't affect the environment, okay. As a matter of fact, if you use a careful planning you can take these projects, put them in the core, we've got 310 square miles, put them in the core and even increase environmental activities in these four or five areas. Does that help?

UNIDENTIFIED SPEAKER: Yeah, the message I think is --

PUBLIC SPEAKER: That's about -- I'm sorry, that --

PUBLIC SPEAKER: -- is Savannah River has the capacity to do those.

PUBLIC SPEAKER: Let's develop it.

PUBLIC SPEAKER: That point is great for me 'cause I --

PUBLIC SPEAKER: Yeah, I'm sorry, yeah. You know -- these come from the Citizen's Advisory Board,

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eighty-some and we want to get to 450 birds.

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represented in terms of how that land will be used. It's quite a resource.

PUBLIC SPEAKER: Well, there's a lot of research there but if the average Joe or Jane that wants to come in there, they can come in and hunt. They can -- we're trying to open that up so they can come in and look at the endangered species and the cultural resources and that sort of thing, the archaeological resources there that are -- what happened in 1950 is the Site just stopped being seven communities and there are all sorts of resources there and have been built -- the forrest land's been built up and the cultural resources weren't destroyed. But as far as public access to those avenues, we're trying to increase them.

PUBLIC SPEAKER: What's your guess as to when things may open up?

PUBLIC SPEAKER: I'd say in the next three to five years I think they'll open up. And talking to these other federal planners that's the -- those are the trends to open up these sites. And, finally, federal facilities but SRS -- too often we talk about these things as liabilities. We call them waste sites, they're contaminated and, yes, some parts of them are, but 310 square miles of Savannah River Site or 562 miles at Hanford are not contaminated. So we should see them as

environmental assets, not just economic assets.

UNIDENTIFIED SPEAKER: And that's all sites?

PUBLIC SPEAKER: Yes.

UNIDENTIFIED SPEAKER: Okay, thank you, sir. I appreciate that. And thanks to everybody for being flexible in these abbreviated sessions but I wanted to go ahead, and any other comments or questions at this point? The one session I know has broken sometime ago. The other one is, I think, winding down next door. You're more than welcome to stay for this session. Nan, you had a couple -- -

MS. FOUNDS: I just wanted to make sure. You can give us additional comments, also. There is faxes, we have a fax number out there. We also have a hotline if you have additional comments that you'd like to make --

PUBLIC SPEAKER: We can call from here, right?

MS. FOUNDS: -- after reading these. We also have an E-mail address so if you happen be able to E-mail them that way, and did I miss out on any of the --

UNIDENTIFIED SPEAKER: Well, we've got phones that they can actually call in.

PUBLIC SPEAKER: You'll allow me to write you a letter, won't you?

MS. FOUNDS: That's right. You can write -- well, that's okay, too.

PUBLIC SPEAKER: That's one of those options.

MS. FOUNDS: I would sincerely like to thank everybody for participating. This has been a good discussion. Thank you.

UNIDENTIFIED SPEAKER: I appreciate it and come back and join us again. Thanks.

DISCUSSION SUMMARIES

QUESTION AND ANSWER SESSION

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MR. LAWSON: Before I start and before I move merely on my way under that assumption, are there people who do have final questions or comments they would like to make so I'll know how much time to allocate to the summaries? There's one -- okay. Well, let's get into it as quickly as possible. And why don't we start with the Pantex, who was in Room A. Jim Parham.

MR. PARHAM: Thanks. Pantex Site Wide EIS had a good turnout. And we have a lot of comment areas that people brought up during the session and we've got a list of those, but just quickly several points made. There was again concerns raised or questions about accident scenarios and the analysis. Questions on the forklift operations, as well as aircraft operations. And there Nan and Donna both heard comments about are the accident scenarios and information analyses too conservative. And that was duly noted and that will be considered and also brought out in the comment response document.

Also the issue of clarification, if the proposed action is the preferred -- preferred alternative. And there are several people who didn't -- who were not aware of that and also wanted copies of the Federal Register

Notice that may have indication. So that is something that was very good to hear on the Pantex Site-Wide EIS.

Someone mentioned that the Pantex mission should be moved to the Savannah River Site. I heard several comments on socioeconomic issues and activities such as that. A very interesting point was brought out by the aging of the pits. And there were people looking, quite frankly, for a better explanation of that, that by over a period of time [unintelligible] deterioration levels or whatever would happen. Also taking into account that longevity well could be the accident analysis or scenario of a possibility for a problem. I think that -- Nan, I think you said that you wanted to make sure this is incorporated in the comment response document.

Also, the Savannah River Site selection criteria for pit storage. And I think that Nan had something that she noted and will be addressed also as far as the concerns of people about the criteria used.

MS. FOUNDS: Just in terms of that, several people made the case for Savannah River having good land use, et cetera. And as is obvious in our document, we selected Savannah River as one of the sites to consider and we will try to, in our comment response, show those criteria and how we evaluated them for Savannah River.

MR. PARHAM: Thanks, Nan. Some people -- I wanted to make sure that you were heard on that. And also environmental justice, the issue was raised that the impacts were shown that neither characterized it as significant or insignificant. And that's something we had a good discussion on, and I think you noted that to respond to.

So, Barry, I think that is a quick summary. So if we have other things that [unintelligible].

MR. LAWSON: All right. Pat Wherley for Storage and Disposition.

MS. WHERLEY: We had a very spirited discussion on the various -- primarily on disposition alternatives that are being considered. There are strong feelings on both sides of the subject as to whether the MOX fuel and reactor alternatives were a wise thing to pursue. And some of the concerns that were raised and comments that were made led to the amount of waste that would be generated by pursuing that option versus the other options. Concerns about the safety environment, but then on the other hand a sense that the MOX fuel was a very environmentally sound process that had been proven in several places.

There was a strong feeling from some people that the EIS should make sure it is considering, especially in

the cost studies, the energy value of the plutonium and that resource value not be lost. On the other side we had the same concern about not pursuing the reactors. There was concern that if the reactor option wasn't pursued that the United States might further lose its nuclear competence knowledge by not exercising that knowledge.

I wanted to catch one other -- okay, there's another part of the discussion that was raised and this was because of the CANDU reactor option. Was the work -- the statements made earlier in the day about that option possibly offering some opportunities to facilitate the negotiations to joint decisions potentially being made between the United States and Russia. There were several comments on that. One, that DOE not preclude looking more proactively and actively into using those same kinds of relationships existing with domestic utilities. And another side to that question was the sentiment that the United States is probably going to support and some way fund the development of the MOX fuel. And if they do that and then the fuel goes to the Canadian reactors there would be the energy value, whereas our tax dollars may be paying for it. So that was an issue that was raised in terms of MOX analysis as well.

There was some clarification provided by DOE during this session on the waste generation rates that I

mentioned earlier and a commitment made to make sure that those numbers were sorted out and clarified and pointers in the comment response document on whether the numbers were annual or totals and where the documents could be found.

There was also a question on how the environmental justice conclusions were stated in the summary document and a request that that language be clarified. It's in two separate places, I guess, and it's a little bit confusing.

One of the overall comments that was made that was -- again, although we try to integrate these meetings and these documents, looking at the surplus plutonium out and not the total plutonium makes it harder for people to understand what the DOE is doing overall. So if we can continually remind DOE that that context is helpful in looking at the [unintelligible] actions.

There was a question on some of the health effects, both in terms in putting the results in context of [unintelligible] radiation and the range of values that might be associated with that, as well as the 100 person-rem practical that's used to characterize some of the results. And here we had stated that there were people looking at that.

There was also clarification of the comment made

about not storing strategic reserves and surplus pits together. And DOE clarified that while they might be located in the same facility they would be separate, very separate. So that's -- I think that was answered.

And then finally, that there were a few suggestions from the ones meeting in the large group this afternoon -- I mean this morning that DOE considered making a larger effort to reach out to the minority populations around the Site on a regular basis to make sure that they are informed of the actions that may affect them and have a chance to participate in meetings such as these.

Was there anything I missed from that group? We had a very long useful chair session.

MR. LAWSON: Thanks, Pat. And finally in the Stockpile Stewardship Management program there were probably a dozen or a dozen and a half issues that came up. Let's just hit some of those, but we have notes on the details of all of them. One thing that I wanted to spotlight, Bill, I don't know if you want to say anything about this, the question on the high explosives and whether it was a preferred or a non-preferred option. It was -- I think you all realize that the intervention to this in passing in this morning's session that we expect high explosives -- that's one area in which DOE has not

been selected as a preferred option. It's not a particular high cost option but yet a preferred alternative that has not been chosen. And that wasn't chosen between the Pantex facility and Los Alamos.

We talked a little bit about maintenance of the labs, decisions on consolidation, and so forth. And somebody noted that the focus of the Department seems to be away from consolidation of facilities, at least more so than was seen three or four years ago. There were concerns about -- or concerns with discussion of what would happen to the Oak Ridge facility since perhaps up to 85 percent of the existing footprint would -- might be vacant or would be available for future uses.

Then there was the question about the -- from a woman involved in substance abuse about what the radiation effects on children will be in the future from the Savannah River Site as well as other facilities that may be DOE or non-DOE facilities in this area. And it was pointed out that there was a comparison of these effects between Savannah River and Los Alamos that essentially the problem came up that the module effect of the DOE facilities were pro-risk. And there was a statement made by someone from the public that it seems as though there is a tendency towards later locating these kinds of facilities in low-income areas, whether they happen to be

in this area or in New Mexico.

Another gentleman made a statement that he felt that the important thing was that if the intent -- I think here with respect to Savannah River, that there be a viable technical -- technological facility which is capable of going where necessary for defense purposes, but at the same time being a good stewart for the environment and for environmental protection.

There were questions on the different schools of thought were brought to bear in this study with respect to the exposure, the effects of exposure and all the different schools of thought considered in the EIS that is put together. Is there a projection of what will be considered a safe dose in the future. And the Department knows that different people have different ideas about that and at least in the Stockpile Stewardship Management Program it was not -- the decision was not to say what would be a safe dose in the future, but just say what the projected dose would be in the future and leave it up to other people to determine whether it's safe or not.

A person made the comment that there was concern that the spent fuel reuse fuel for weapons as well as the weapons themselves needs to be under control and that there needs to be some better feeling for, at least on the part of the public, that there was some control in place

here and that there was just not waste or weapons being stored at different places.

Let's see. People wanted to know what the process would be to make sure that the public is assured that their input has an effect. And in this overall NEPA process and, for instance, upon how the public had influenced decisions that are made, including the prospect for closing the Savannah River Site. And a person cited some of the wildlife destruction that is alleged to have been somehow related to the Savannah River Site.

A person made a comment that the ad for this meeting gave the impression that the Savannah River Site was preferred choice in each of the three programs. And we went through a clarification of that. And then a very important question was asked about how do you balance the strategic considerations, I suppose that's the Defense strategic considerations, against the possible effects of people. And the difficulty of doing that was acknowledged by the Department.

And then somebody else raised the question about -- a question of whether there are independent parties that are overseeing DOE to make sure that it's -- that there's sort of a peer review there and not necessarily just determined by the DOE and perhaps DOE should fund an outside group to hire people to do that. That kind of

works in that, at least two different points of view that are considered.

A point was also made that the preferred options, even though they are identified as preferred, are not necessarily the ones that will be decided upon by the Secretary. So that if people have comments one way or another it's still relevant to make comments on that, because even if something's preferred it does not necessarily mean it will be chosen.

And those were the major points. If you'd like to clarify or enhance, it's fine.

PUBLIC CITIZEN: I wasn't in the group, but I had a question as to your squares.

SPEAKER: Yes.

PUBLIC CITIZEN: Sometimes they're filled in and sometimes they're not. What does that mean?

SPEAKER: Oh, that was just notes to me on the ones that I thought that I wanted to make sure I covered. I covered a few more here than I did just the ones that was solid.

PUBLIC CITIZEN: They're not anymore less important?

SPEAKER: No. No, in fact the notetakers and the court reporters have all those as well. I was just trying to cut down on the things that were really

highlights. I was hoping to make it three or four, but I couldn't have done that. Any other comments regarding that? You're very observant, by the way. Now, I know there's at least one comment to be made.

PUBLIC CITIZEN: Basically this is a very brief comment. We are from Savannah, Georgia, representing the concerns of our citizens. There are two things that we want to bring to the attention. And we've already mentioned one, and that is there really needs to be beyond an outreach effort to minority communities to bring them into this process that is leaning toward decisions that they will have to live with for some time to come. Outreach in the forms of radio announcements, TV advertisements, brochures and the like are not enough because they're simply announcements. And then you in your busy schedule as an African American working and trying to be an active part of your community trying to make decisions, can you take the time off to come to this meeting that starts at eight o'clock in the morning. Other reasons why we do not have more people with us that should have been here this morning is because we could not get them professional leave to attend this meeting. If they were going to take a day off of their jobs, they would have been penalized not only monetarily, but they were going to be written up by their supervisor because it

was deemed that this was not an important part of life, nor was it related to any part of their jobs.

So it is incumbent upon the Department of Energy at the Savannah River Site to try to think through ways of going beyond the cursory outreach at this, to bring particularly downstream communities and rural communities into the roundtable discussions that are going on in the name of public involvement. Beyond just talking to them there also has to be a strategic effort that is launched that will begin to train these communities in the information, because it's not enough for us to come to the table and politely nod. We want to be able to contribute substantively. In order to do that we have got to build a base of understanding amongst not only the "minority populations" which I hope they'll move from using that term to perhaps people of color or effected communities because it's not only affecting African-American communities, it's also affecting low-income communities.

We also want to see the analysis take into consideration the exposure of low-income or affected communities to not only what the operations are at the Savannah River, but those industrial entities that's also exposing those communities to chemical hazards. To be able to assess if there is a result or an impact from those combined exposure to exposed to what's going on from

SRS, exposed from what's going on at Piedmont or [unintelligible] because that's very important to us.

We do not want to come to another meeting where there isn't a substantial representation if it's held in North Augusta or Augusta without the black community being here because we feel that you cannot continue to make these decisions without our input and still live up to the requirements of NEPA. And in addition to that, we have read the NEPA regulation and our understanding is that it calls for the involvement of local elected officials, which is a component to us that's very important, and we have not been able to somehow register that with the Georgia side. I don't know about the South Carolina side. And we feel that it's very important. So to the extent that DOE and SRS can begin to filter this information to our city councils and our county commissioners and encourage them to be involved, it will be very helpful to us, because there seems to be a disjuncture between the citizens of Georgia and the government that's running Georgia and its relationship to DOE because the Site does not sit in Georgia, it's in South Carolina. But there are two things that are a consideration for us; it's, one, that the waterways from Savannah River Site end up in Georgia, and the other one is that so much of our work population works at the plant and they have to come home

to the families, and so there is that intimate relationship there. So we hope that these things will be noted in the comments.

And finally, it is almost a disservice to us who are just regular people to ask us to wade through 1875 pages of the Disposition and Storage EIS and then 1465 pages of the Stewardship Stockpile and then 1233 pages of the Pantex. That is just horrendous because you must take into consideration that in a lot of these communities the reading level is at third grade standard. And so if we have to go through all of this, it's really cumbersome, let alone just outright difficult. And so we've got to find ways to get this information into the heads of laypeople where they can understand it, interpret it and translate it, and then be ready to give an intelligent response as well as to raise the kinds of questions that will help us to understand the whole picture, because right now we're neutral people. We're not pro this or anti that. We know that we're pro help and we know that people must have jobs, but we don't want the two just oppose against each other. And then we want the facts not only from DOE but reputable, independent scientists that we can trust and rely on as well.

MR. LAWSON: Thank you very much. We appreciate that. Is there anyone else that has a comment that

anybody can make or questions to ask? Any DOE people have anything that you'd like to add? Okay, this person over here.

PUBLIC CITIZEN: My name is Arthur Smith and I'm from Augusta. I live in this area and I'm also from the impacted area called Hyde Park. But I also have been working hand in hand with Dr. McLane and the organization Citizens for Environmental Justice. And I just wanted to put another pin in that point about people coming out and start inputting at these meetings, because it's important to us, too. And there's got to be another way to get word out to them because like Dr. McLane was saying, we feel with our heart but we've got to live with the situation once it's here. But we all need to be at the table together, you know. We don't want the situation to be where it was when Savannah River Site was built. We understand the urgency then to make the nuclear bomb and now we have to deal with what we have here.

I just want to say that we are interested, but like Dr. McLanie said, a lot of my friends wouldn't come because of the work situation. More will be here at six o'clock. But you need to get another word put out to let them know there's other people, because we are people, all of us, and we want input from people with color. Thank you.

SPEAKER:

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know you've got your jobs and I know that you've got church work and that sort of thing, but this really does affect you. And maybe even to the point of having meetings on the Site like when Secretary O'Leary came when they had selective people talk with her. This affects them more than Secretary O'Leary coming to the Site. There's future uses and future missions and environmental problems and health problems. And I think it would be a disservice not to include all the employees, because the outside world sees SRS employees as SRS people. They don't know whether you're DOE. They don't know whether you work for Brown & Root or Westinghouse or whatever. So I think while they're including everybody here, let's think of the employees as well.

MR. LAWSON: Thank you very much. Any other comments? Well, let me just add a few things in closing. First of all, from my own perspective and certainly from the Department, we all appreciate your taking the time off you did today to come and making your comments and giving the input that you have. I think we can safely say that with all notetakers and court reporters it has been duly noted. As I indicated before, all these comments become the basis for a public response document which will respond to all the comments that have been made and all the meetings that have been held. Second, I would like to

chat there

transition -- there is a meeting t[illegible] be and 10:00 or 11:00 in which you're [illegible] co The program will be basically the [illegible] into small groups or large groups [illegible] by the amount and the size of the [illegible] -- the group o[illegible] pie, not the size of the peop[illegible] umber of peopl[illegible] are here.

And I also just want to remind you again that [illegible] is coming [illegible]rose on Material Disposition and Stockpile Stewrdship. Those comments should be in by the 7th. The ther, Pantex, goes until July 12th. And there are othe ways, there's the phone, fax, electronically nailed. Yu can write them down and send them by mail or phone or hatever you want to do, whatever is most convenient toyou. And I hope that you take adva[illegible] anything else -- there are feedback [illegible]n't filled out, if you wou[illegible]ave th And [illegible]e also [illegible]t to s[illegible]n the [illegible]'s say

Savannah --

MR. LAWSON: Yes.

PUBLIC CITIZEN: -- if we were to rally up a 100,000 votes -- I mean a hundred thousand people to actually call in and write that we are in -- that we oppose any type of new facility being constructed on the Savannah River Site or anything -- as a matter of fact, I'm in favor of opposing the whole site and I believe consolidate it at another site.

MR. LAWSON: Right.

PUBLIC CITIZEN: But if there was, say for instance, a 100,000 people from Savannah called in at the DOE Department or faxed the information in, how effective is that going to be for ROD or the Record of Decision?

SPEAKER: Well, I can't answer that. I'd say that somebody -- you'd get somebody's attention if you had 100,000 of them --

[Several participants speak at one time.]

MR. RUDY: No, I think if you could get that many the phone lines would be certainly busy. But the Secretary would understand as the ultimate decision maker, she'll understand not only the comments from this session but from all the other sites that we have. In fact, that's a part of her decision process, to get briefed from us on what we hear, what we learn, what the extent of

these comments are and what the people feel. So the Secretary would be exposed and have an appreciation of that. So if there were lots of calls and lots of letters and lots of faxes, she would see that.

PUBLIC CITIZEN: Well, I hope they ain't quoting it like that paper that -- I don't see it. There was a -- what was that paper she had where --

MR. LAWSON: Oh, the advertisement for this one?

PUBLIC CITIZEN: Well, all the arrows pointing from the one for the public should be straight down to the bottom and everything for the Record of Decision is coming from DOE. You know what I'm saying? So I mean that's the reason why I made that -- I asked the question that I asked.

MR. LAWSON: Very good point. And another question or comment?

PUBLIC CITIZEN: The gentleman that just spoke, I resent his statement about transferring everything to some other area. I would like you to briefly state what his position on it.

MR. LAWSON: Well, that's up to him. If he'd like to, that's fine.

PUBLIC CITIZEN: Okay, that's all right. That's all right.

MR. LAWSON: The gentleman was asking you if you

have a preferred site that you would like to see stuff go to. It's up to you to answer if you'd like; if you don't want, that's fine.

PUBLIC CITIZEN: Well, according to the Summary, I would think that Oak Ridge would be one of the preferred spots. I mean if the decision was being made -- was made by [unintelligible] Pantex, but not here at Savannah River Site. Maybe because low income people or people of color are definitely at risk and that is one of the main reasons why I'm here. Now, if there was any other community like such as native Americans, then this audience would be full of native Americans, okay. So because they are not at risk at this particular point in time, then I'm here because I have a daughter and I have a family. And you-all stated in here that people from low income are definitely at risk. It's nothing that we said. This is what you-all said. So that's the reason why I said let's move Savannah River Site to Pantex or Oak Ridge or the West or anyplace else besides here.

PUBLIC CITIZEN: Let me just put a little tidbit on that and that is that we do not want to fall into the syndrome of not in my backyard but in yours. So what we've got to consider is what is going to be the impact if it's in anybody's backyard and how do we make it in such a way that we minimize the risk to the workers, their

families and the communities because I know if I call up Juan Montez [phonetically spelled] out at Los Alamos and tell him that we in Savannah are going to send it over there, I know the people who run the [unintelligible] festival and who live near Oak Ridge, and we're talking about [unintelligible] they're going to say, well, how did you do that.

So I understand the point because we're looking at how it's written up in the summary documents and how you've analyzed the impact when you say, okay, there will be an adverse effect -- a disproportionate impact on low income and minority populations. But the humanitarian that I am, if it's going to kill rich, white folks, I'm opposed to that, too. So we've got to figure out how do we deal with this in such a way that we minimize the risk to human beings and our health and environment.

MR. LAWSON: Okay. Thank you very much for that comment, and thank you all. And I appreciate it very much. We will reconvene another session at six o'clock. Thank you again for coming.

EVENING SESSION

STOCKPILE STEWARDSHIP AND MANAGEMENT PEIS

QUESTION AND ANSWER SESSION

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MR. LAWSON: Right now the floor is open for any comments or questions that you have about the Stockpile Stewardship Program, either the overall program or it's relationship to the Savannah River Site. Any questions or comments? Yes, we have one back over in this corner here.

PUBLIC CITIZEN: I would like to know can we go to the Reading Room in Aiken to get the full -- you know, the complete impact statements? I think I've received some or a phone number we called to get a list of -- you know, I know a lot of the environmental impact statements come out from time to time and I want to get the full range. Is there a number, a 1-800 or -- where would I find those located? Or a name?

MR. WHITEMAN: Maybe someone at the desk out here can help you. We have copies of the -- I'm sure we've got copies of the PEIS here at the meeting that you can get a copy, if we still have some.

PUBLIC CITIZEN: Thank you.

MR. LAWSON: Anyone else have a question on the Stockpile Stewardship? Okay. And this doesn't mean if you get a question later you can't ask it.

At this point now I would like to call on Nannette Founds who will give some background on the environmental work that was done on the Pantex, and we'll do the same for the other program.

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MR. LAWSON: Okay. That was a quick analysis. Is there -- are there any questions or comments that folks would like to make? Back on the left-hand side.

PUBLIC CITIZEN: A quick question. I just want to make sure that I'm clear and everybody else is clear. The pits that are discussed in this EIS, are those strategic reserve or is there a mix between strategic reserve and surplus or what?

MS. FOUNDS: Right at the moment these are the ones that are coming from the dismantlement operations and they're not divided into strategic reserves or surplus. Right at the moment we're considering that all the same material.

MR. LAWSON: Anyone else? Yes, right over here.

PUBLIC CITIZEN: Could you explain again the basis for the current limitation of the 8,000, I gather it was, pits that you're allowed to store? Is that a state limitation or DOE imposed or?

MS. FOUNDS: That was DOE imposed. We had done an environmental assessment for the storage at the Pantex Site through citizen participation. They wanted us to look at that in greater detail in terms of -- you know,

they wanted us to look at effects on the aquifers out there, et cetera. So it was a negotiated position. And we have about 6,000 in storage at the time. There were about -- at a rate of 2,000 dismantlements a year nominally, and it would take us about three years to do an EIS. So that was how the 12,000 was arrived at. It wasn't because there was, you know, a jump or anything else in terms of accidental risks.

MR. LAWSON: Any questions or comments? Anything further? Okay. Let's now move on to Storage and Disposition.

STORAGE AND DISPOSITION OF

WEAPONS-USABLE FISSILE MATERIALS PEIS

QUESTION AND ANSWER SESSION

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MR. LAWSON: Again, I'll open it up for any questions or comments regarding Storage and Disposition. I have two up here. Let's take this gentleman in the front first, please.

PUBLIC CITIZEN: After going through the experience with the Department and suffering with the Department for the last couple of years in their attempts to get foreign research for reactor fuel [unintelligible], it seems like this program in particular would be benefited by accelerating the selection of the site for the disposition activity up to the same time frame as the storage decision is. What's going to be -- otherwise you're going to be in the same situation as FRR. You're going to say, okay, I'm going to bring it to this site but I'm not deciding what or when or how or where to do with it after that. I think you could be better served by saying, well, it's important to the site and I'm going to bring it in here and I'm going to do the disposition activity here, not what technology I'm going to use for the disposition.

MR. CYGELMAN: We accept the comment.

MR. LAWSON: Thank you. The gentleman right behind you.

PUBLIC CITIZEN: My question might be a little bit related, and that is perhaps from a longer-term perspective. And as we all know, plutonium is going to be around for millions of years. And disposition in some of these alternatives appear to simply transform the component from an as is configuration to some other configuration like a spent fuel. There's no discussion or consideration of the full life cycle costs of taking the plutonium from the as is configuration into a form suitable for, say, geological repository where it can live out it's remaining --

PUBLIC CITIZEN: A million years.

PUBLIC CITIZEN: -- millions, like 250 thousand plus -- plus years. Some of these alternatives appear to have built into it some future mortgage. And from the analysis that has been discussed I don't know how that future mortgage of creating a lot of, say, contaminated MOX fuel rods that will then sit for disposition somewhere is entering into your decision making and the equation.

Shouldn't all the analysis be to some terminal end state where you can take a look at the true long-term implications of plutonium disposition as opposed to some short sighted case in one, and when some of the options

appear to offer you a perfectly acceptable long-term geological repository?

MR. CYGELMAN: The answer to your question is, yes, we do plan to look at the mortgage. And that will appear, as Greg Rudy mentioned, in our costs scheduling reports that are due out sometime in June/July time frame. In that particular report we will be analyzing for each of the alternatives the costs of actually implementing that alternative and it would include the mortgage cost that you brought up. But it is not part of the environmental analysis. It is part of the Record of Decision.

As you remember, Greg Rudy put up a chart that showed at one area that you have the environmental analysis and in another area your cost schedule policy consideration. They both merge or contribute to what the Record of Decision is going to be.

MR. LAWSON: You would like to follow up?

PUBLIC CITIZEN: If I could.

MR. LAWSON: Please.

PUBLIC CITIZEN: Again, the end state of the material from the stabilization appears to have some significant potential relative even to the environmental impact. Plutonium placed in a [unintelligible] glass canister that's in interim storage at Savannah River has one mortgage to meet compared with a -- you know, a MOX

fuel element that is sitting in a wet basin or in dry storage pending some longer-term disposition. There's an environmental mortgage associated with the material as well. How are you calculating that environmental mortgage?

MR. CYGELMAN: Okay. We'll be looking into more environmental mortgage with the [unintelligible] -- what we're trying to do is with regard to the MOX or with regard to the immobilization one is to put it in a form that is as close as possible to the form that's being analyzed for the long-term repository. And with that in mind, we believe that when that environmental impact of long-term repository is in fact completed, that would be included in that. We are contributing a relatively small quantity relative to the other quantities.

MR. LAWSON: Your face tells me that you're not quite sure that he answered the question that you were asking.

PUBLIC CITIZEN: I'm not quite sure he's reaching an equivalent end state.

MR. CYGELMAN: An equivalent what?

PUBLIC CITIZEN: Equivalent end state.

MR. RUDY: May I give it a shot?

MR. CYGELMAN: Sure.

MR. RUDY: I don't know if I can help in that

one, but whether it would be mixed oxide fuel or vitrified waste or both, the concept would be the bottles. For example, at DWPF, they would have an ultimate end state which is presently planned under the National Waste Policy Act to be placed in a geological repository. So we, in one instance, have a plan to close the circle on the glass-based canisters. If can in can was such a concept utilized it would submit -- go along with those canisters. Right now there is, I believe, approximately 6,000 bottles planned in that canister. This can in can, the volume you would displace would be approximately 150 to 200 or two and a quarter additional bottles which would be procured. So it would be a relatively small additional number of bottles, again, with an end state contemplated.

Under the MOX option it would displace light water reactor fuel. Light water reactors, for example, in this country, if that was the option chosen for MOX, would typically plan to run anyway and produce spent fuel, low enriched uranium spent fuel. The concept here would be to not utilize low enriched uranium fuel, rather utilize MOX fuel. You would not extend the life of that reactor and therefore it's waste production. You would simply thereby extend its life. Some of this waste would be mixed oxide fuel and some low enriched uranium. Again, both of those spent fuel blocks have an ultimate path forward planned

for a geological repository.

Now, certainly we as a nation are still working on and trying to get resolution of the ultimate geologic location site. But there is a National Risk Policy Act. There is a process established to get on with that job. And while we're looking at that and observing it we have the job to get on with of reducing this nuclear danger. And again, these technologies can [unintelligible] with that process. So does that help a little bit?

PUBLIC CITIZEN: If you believe you have the ability -- if you believe that you have a certifiable waste core for MOX fuel and you believe that used or spent MOX fuel can be placed in the geological repository, do you have that waste form certified?

MR. RUDY: We literally don't have it certified at this point. But from a programmatic prospective we think that there's enough work that we have done within the Department of Energy waste program with the initial conversations and discussions with the Nuclear Regulatory Commission, that we feel that this is a viable and likely path. So we have not confirmed that, it's not licensed, but all indications would be to us that it may very well be. Otherwise, of course, you would not proceed with that. So we need to cover that and close that question, but we know that that's an open question.

MR. CYGELMAN: I think I -- I hope it was this session. I thought I indicated we have two -- two major considerations. One is the nonproliferation, which is we want to put the material in a form that's less weapons-useable. At the other end I thought I communicated that we have a concern with regard to introducing plutonium into a repository. At the present it doesn't have much plutonium. It has some trace.

So what we've been doing -- and that's what I mentioned a little bit earlier. We've been working with the RW Program in DOE. And as we in fact develop -- have developed this initial technology, we have been interfacing with them and saying, okay, this is what the package looks like. Is it close enough to what you have been looking at either from a defense high level waste which is a glass, DWPF type glass, or with regard to commercial spent fuel. Is the product that we are planning to deliver at the end of our implementation either similar enough or -- and where it's different is it still acceptable with regard to what you think is going to be acceptable in the repository. And so far we've been working such that the product immobilization or spent fuel is -- in fact, we're getting some indication that it would be acceptable.

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derive some equivalency into the life cycle costs. There are unknowns here. The unknowns need to translate into economic and/or environmental impacts that get added to the analysis when compa alternatives that, perhaps, might not have of unknowns.

MR. LAWSON: ch. I appreciate it. Comment over here

on-making p

weighting. The weighting will be decided by the decision-maker, and right now I don't know how she'll weigh, or whoever makes the decision, will weigh that.

PUBLIC CITIZEN: But the energy value is --

MR. CYGELMAN: Is being considered, yes. But --

PUBLIC CITIZEN: It's an offset of the cost --

MR. CYGELMAN: Yeah, it's an offset of the cost. But when we do the economic analysis and it will be published in June or July, with regard to what is the energy content, it will be taken into consideration. You will see how we -- how we attach the cost value to it. And you'll see with both what the initial investment is, and we'll be addressing the life cycle costs of each alternative. The sale of electricity or the sale of the energy content associated with plutonium will enter in the analysis where it is appropriate.

MR. LAWSON: Would you like to follow up or --

MR. CYGELMAN: Excuse me a minute.

[Mr. Andre confers with audience member.]

MR. CYGELMAN: Thank you.

MR. LAWSON: Right here, sir.

PUBLIC CITIZEN: My name is John Dewes and I'm Vice Chairman of the Savannah River Section of the American Nuclear Society. Our local section consists of some 800 scientists and engineers in the Central Savannah

River Area. On behalf of the Section, I would like to make a statement concerning the PEIS.

We believe that all of the long-term storage options are acceptable from the standpoint of environmental, safety and health. We also believe that any of the long-term storage sites proposed have sufficient infrastructure to handle the engineering and design of such a facility.

We strongly support the recommendations contained in the American Nuclear Society Special Panel Report on the protection and management of plutonium. This panel was chaired by Glen T. Seaborg, who discovered plutonium almost 60 years ago. This report recommended implementation of the reactor irradiation option for disposal of surplus weapons-useable plutonium.

The stated goal of the PEIS is to make surplus plutonium inaccessible and unattractive for use as nuclear weapons. We believe that the reactor irradiation option has several advantages over the other options in meeting this goal. It is the only option that converts weapons-grade plutonium to reactor-grade plutonium. This is a crucial point, because our weapons testing history indicates that, although possible, it is extremely difficult to build a successful nuclear weapon from reactor-grade plutonium, and that the infrastructure

required to either build a successful weapon or to purify the plutonium to weapons-grade represents a tremendous barrier to diversion. The reactor irradiation option is also the quickest way to reach the goal of the spent fuel standard for protection from misuse.

Jill Lytle, Deputy Assistant Secretary, in her prepared comments for the Citizens Advisory Board Plutonium Forum, indicated that she wanted a sustainable decision, one in which -- one which considers the issue in light of other decisions under review and one that garners long-term public support. The decision should therefore reflect the long-term need to protect the public from diversion of the materials in question. The French have recognized this issue, and are currently taking advantage of the long-term protection associated with the use of mixed oxide fuel for their civilian stockpiles of plutonium.

We believe that if the mission of DOE is to ensure a stable energy supply for our country's needs, then the energy value of the plutonium, estimated at 32 billion dollars, should be considered when selecting the preferred alternative. And I believe you indicated that it would be. Plutonium is not a waste. It is the closest thing to a peace dividend our country will ever see. We also believe that the DOE needs to pay attention to

scientific facts related to plutonium rather than irresponsible and irrational statements made concerning its toxicity and potential impact on the population.

We strongly urge you to select the reactor irradiation option as the most beneficial and effective method for dispositioning of weapons-useable fissile material. Thank you.

MR. LAWSON: Thank you. Any other comments or questions? Any other comments or questions about the other programs or any relationship between or among the programs? Yes, sir. Right up here, please.

PUBLIC CITIZEN: I know that you had spoke previously about DOD meeting goals as weapons. And having been on both sides of the fence I know that DOD is very slow to change mission statements and responsibilities. How have you integrated what you're suggesting doing with DOD mission and responsibilities and their obligations?

MR. CYGELMAN: I think, Earl, you're better to answer that question.

MR. WHITEMAN: There have been -- well, first of all let me say the Department of Defense in its command structure has realigned itself with the end of the Cold War. When the Cold War ended the -- all three services including the Army had nuclear weapon access and stockpiles that figured into their planning. The Army no

longer has nuclear weapons, and the Navy and Air Force have combined commands so that there is now a strategic command that -- in Omaha that, in fact, until recently was headed by an admiral, strangely enough, in Omaha. So I think that the joint forces on the DOD side, first from an organizational standpoint, is starting to deal with the end of the Cold War.

From a program planning standpoint I think there's two major activities that have occurred. First of all, the joint chiefs of staff did an extensive analysis in the nuclear posture review that was published about 18 months ago and endorsed by the President on what would be the role of nuclear weapons and the Department of Defense policy in a post Cold War environment. Now, that has served as a basic policy guidance for us at DOE.

We've also, beginning about a year ago, began an extensive set of programmatic discussions and meetings with the strategic command people in Omaha, including Admiral Childs who at the time was the -- who was the head or the commander or STRAT COM. We met with him at least monthly for the last year in terms of making sure that the Department of Energy plans relative to support of future stockpile are consistent with the Department of Defense strategic command plans for their forestructure. So I think we went probably too long, three or four years after

the end of the Cold War, without a good planning base for a nuclear weapons program between the two departments.

I think over the last year that's come together pretty well. And it's continuing -- there's still some loose ends, but it's continuing to work. And I feel pretty good about that.

MR. LAWSON: Follow up?

PUBLIC CITIZEN: You took it to one point and I want to go on a little further, and that is, they have skills which includes assembly and disassembly. They have skills in terms of compliance, treaty, test entry monitoring, et cetera. And then we have our stockpiles pretty much assessed. And we keep thinking, or at least I keep hearing from the politicians that we're going to absorb some of the other people's nuclear weapons material. And that worries me when they say, how do they break that in, how do we integrate that into what we do in terms of our own compliance and what we're capable of reprocessing or capsulating and storing.

MR. WHITEMAN: I'll defer to Andre regarding the disposition of that material. But we have been able to work the -- there was some material -- let's see, that was from Kazackastan, I believe, it was sapphire material that did come in. We were able to work that. And we sent teams over there to package the material, flew it into the

country, we
take it safely and securely to Oak Ridge. It's
to a commercial
I think -- if that
which are both
nsitive from a tec
I would defer to Andre as r as any other p
that might be going on. I would su
such activity would probably be kept as close hold as t
one was until after it had been successful.
MR. GYGEMAN: Well, in order to answer your
question I think we nee e the two. One is
highly-enriched uraniu
know, we have been abl

oups that have

have -- in fa

ation, we have

le. We a

legua l security and

on. So w looki

lsposing t

we done ar ng with

regard to bringi onium into this country to

dispose of it in this country. And currently there are no

plans to do that, okay. What Greg Rudy mentioned is an

offer where a neutral country, a nonweapons country,

Canada, has offered to use their reactors to not only

dispose of Russian in, the Canadian

governm t's just an

alt

nea

the nto one m

int s and comm

the cor[illegible] e integrated

terms of [illegible] impacts and a

there's [illegible]

MR. CYGELMAN: [illegible]

secretary.

MR. RUDY: My o[illegible] ving shortly,

I'm on the seventh floor, but we're relocating in a

two weeks, s[illegible]. But the good news is we'll all be t

finally in the building in one area. There is a ve

appreciation on the part I know of the secretary an

the under secretary and the deputy, Tom Breanling a

Charlie Curtis understand -- in fact, that's why you see

these three meetings here togeth[illegible] nderstand th

tritium decision, the site wide [illegible]

disposition. [illegible] how thos[illegible]

[illegible] of the C[illegible]

[illegible] three [illegible] ke out the

[illegible] And this [illegible]

[illegible] can fit

[illegible]

MR. LAWSON: Okay. Excellent comments and questions. Any others that you would like to make?

Okay. We thank you very much. And I thank you all. Before you leave let me just make a couple of comments. One is to remind you that the comment period for both Material Disposition and Stockpile Stewardship ends on May 7th, which is next week. The comment period for Pantex extends until July 12. I think you will find materials in your package which will give you a form in which to submit written comments. Should you chose to do so before the close of the respective dates, we encourage you to do that.

Also as I mentioned earlier, there are 800 numbers, there are fax numbers, electronic bulletin board, there's all kinds of ways. You can use the method that is the most convenient, easiest for you to use. Also there is a feedback form that I would encourage you to fill out for the Department before you leave.

Now, according to my watch it's a little after 8:30. I believe that there will be a core group of people on the staff who will be staying in case there are some folks who come a little later who would like to speak. All of you are invited to stay in informal discussion and stick around in case there are other people would like to come in and ask questions or make comments. If you chose

to do so I will announce if somebody comes to me and says they would like to have something formally introduced into the record.

If you chose not to stay, we appreciate your taking the time this evening, and some of you, I know, were here this morning. We very much appreciate the time that you've taken to learn more about the programs and to contribute to the comments for the various EISs.

Again, I can't formally adjourn at this point but I certainly can recess and I will do so. And I thank you very much and have a pleasant evening. Thank you.

[Off the record momentarily]

MR. LAWSON: Excuse me just a second. It is now nearly nine o'clock. I have not had anyone else who has approached about making a comment or question. Let me just make one last survey. Is there anybody in the room here who would like to make a comment before I adjourn the meeting?

Not seeing any, then, I once again thank everybody for participating, the DOE folks for being as cooperative and accurate in their presentations. And I also want to thank the notetakers and the court reporters for a fine job today. This meeting is now adjourned.