

Page 142

1 even touching on the subject of reactor  
2 accident risks, and does so in my judgment  
3 wholly inadequately.  
4 But will the gentleman from Duke and  
5 DOE acknowledge, as I understand the case to  
6 be, that the people of Charlotte, North  
7 Carolina because they are surrounded by four  
8 ice condenser units, McGuire at Lake Norman  
9 17 miles north of downtown Charlotte, and  
10 Catawba on Lake Wylie in South Carolina  
11 17 miles south -- the people of downtown  
12 Charlotte are exposed to a higher risk of the  
13 beyond design basis accident fatalities than  
14 any other community in the entire United  
15 States.  
16 Am I accurately recalling what  
17 either the reactor safety say or the NRC's  
18 comparative assessment of relative risk of  
19 people in reactor communities have concluded  
20 with respect to the people of Charlotte? Does  
21 anyone want to address that?  
22 MR. NESBIT: Yes, I think your  
23 conclusion is an error.  
24 The reactors at McGuire and Catawba  
25 meet a series of very strict regulatory

Page 143

1 standards that are imposed by the Nuclear  
2 Regulatory Commission.  
3 We showed the NRC that we met those  
4 standards when we got them licensed back in the  
5 early 1980s, and they've operated safely ever  
6 since then.  
7 In addition, in the mid 1980s, the  
8 Nuclear Regulatory Commission promulgated  
9 safety goals for nuclear power plants.  
10 To summarize the goals briefly,  
11 those goals were that the risk to someone in  
12 the population surrounding the plant of a  
13 prompt fatality should be no greater than half  
14 of 1 percent of the overall risk of such  
15 fatalities.  
16 In addition, the risk of cancer  
17 fatalities from the nuclear power plant  
18 operation should, again, be no greater than  
19 half of 1 percent of the overall risk of cancer  
20 fatalities. The NRC --  
21 MR. GUILD: I don't think --  
22 MR. NESBIT: Excuse me. Could I  
23 complete my question?  
24 MR. GUILD: I don't think you're  
25 responding to my question. If I could simply

Page 144

1 restate the point.  
2 Of the communities in the  
3 United States, is it not the case that the  
4 people of Charlotte face the greatest risk of  
5 death from beyond design basis accidents; and  
6 if they don't, what ranking is Charlotte? Is  
7 Charlotte number two, number three, number  
8 four, or is it indeed number one as I recall  
9 reading? That's the question I have for you,  
10 sir, not a soliloquy about how safe Catawba  
11 reactors are.  
12 Relatively speaking, where does  
13 Charlotte stand with respect to the risk of  
14 fatalities from a beyond design basis accident?  
15 SENATOR LEVENTIS: There's nothing  
16 inconsistent with what either one of you are  
17 saying, because I doubt seriously if there's a  
18 major metropolitan area with two reactors on  
19 the north and two reactors on the south so  
20 positioned.  
21 Bob, what you're saying has to be  
22 probably correct if that's true, and the fact  
23 that it's highly unlikely probably is correct,  
24 as well, but from a statistical standpoint, are  
25 there millions of people so located in relation

Page 145

1 to four reactors anywhere else?  
2 MR. NESBIT: Sir, I've not done the  
3 demographical studies to respond to that  
4 question, but I'd just like to complete my  
5 statement and say that --  
6 SENATOR LEVENTIS: Sure.  
7 MR. NESBIT: -- the NRC's own  
8 studies indicate that the risks from operations  
9 at Catawba and McGuire are one to two orders of  
10 magnitude lower than the NRC's own safety goal,  
11 with or without MOX fuel.  
12 SENATOR LEVENTIS: But the question  
13 then becomes: Did the NRC have a probability  
14 of accidents among the reactors in the old  
15 Soviet Union? What was our take on that, and  
16 were we surprised when Chernoble went boom?  
17 MR. NESBIT: I don't think the NRC  
18 studies at that time even considered the  
19 different Soviet designed reactors.  
20 SENATOR LEVENTIS: Did they, Dave?  
21 MR. NULTON: I don't know. But let  
22 me just say that the Chernoble reactors are a  
23 different design than the VVR1000 reactors that  
24 are the seven that I mentioned.  
25 SENATOR LEVENTIS: I understand

<p style="text-align: right;">Page 146</p> <p>1 that. The point is: Did the NRC or DOE try to 2 quantify what they thought were the 3 probabilities of those reactors with those 4 designs having a problem, and did this meet our 5 expectation in terms of the incident and its 6 intensity? 7 Those are valid questions because if 8 the DOE, NRC, whomever, applied the same logic 9 to the different technology and came up with a 10 probability, and then there was an occurrence, 11 then it would be useful to apply that same 12 rationale to ours. 13 Nobody wants a problem. Everybody 14 works to avoid a problem, but these are highly 15 complex kind of things, so we have to do some 16 kind of statistical approach to see where we 17 ought to be applying a little more paint or 18 glue or whatever it is that we're going to do. 19 But like I say, I don't think 20 there's a difference of opinion. It's just the 21 difference that you're looking at those 22 particular things. 23 So can we move on to another 24 question? 25 MR. GUILD: Well, of course, the</p>	<p style="text-align: right;">Page 1</p> <p>1 cancers, as compared to 14,000. 2 That's an acknowledgment of an 3 excess of 1,600 prompt and latent fatalities 4 associated with a beyond design basis accident 5 at Catawba. That's according to the DOE's own 6 study, associated with the choice by DOE and 7 Duke to subject us to this increased risk for 8 mixed-oxide fuel. 9 Now, President Clinton adopted an 10 environmental justice Executive Order where, as 11 part of the compliance process with the 12 National Environmental Policy Act, he required 13 government agencies, such as DOE, to assess 14 whether or not actions you proposed to take 15 will embody a disproportionate and adverse 16 impact potentially on minority communities and 17 communities with low income. 18 And you purport to do such an 19 analysis that I find will be inadequate at 20 Appendix M to your supplement to the EIS. And 21 there you simply conclude that since there will 22 be no bad impacts on anybody, there won't be 23 many bad impacts on people of color or people 24 of low income. 25 My question for you, sir, is:</p>
<p style="text-align: right;">Page 147</p> <p>1 3-mile Island accident was a beyond design 2 basis accident, as well. The loss of coolant 3 circumstance of TMI was not contemplated in the 4 design of that reactor, nor was it contemplated 5 in the design of the Catawba reactors. 6 Ice condensers, of course, address 7 only the possibility of a steam explosion and 8 the condensing of that steam. They don't 9 address the concern of a hydrogen buildup in 10 the containment for which Duke Power had to 11 jerry-rig a glow plug design with the hopeful 12 intention that the buildup of hydrogen would be 13 burned off in a controlled burn as opposed to 14 an uncontrolled explosion that would result in 15 loss of containment. 16 Your supplement to the Environmental 17 Impact Statement for this proposed program, 18 page K24, addresses these beyond design basis 19 accidents and, as the previous speaker alluded 20 to, acknowledges that for a mixed-oxide, MOX, 21 core there will be some 15,600 prompt and 22 latent cancer fatalities projected from the 23 operation of the Catawba reactor. In the event 24 of a beyond design basis accident, 15,560 -- 25 15,600, excuse me, prompt fatalities in latent</p>	<p style="text-align: right;">Page 149</p> <p>1 Having concluded that there will be an 2 additional 1,600 fatalities in the event of a 3 beyond design basis accident at Catawba, what 4 analysis have you made of a population that 5 will suffer those fatalities with respect to 6 environmental justice considerations? 7 In other words, the people who will 8 die of the 15,600, what proportion of they are 9 persons of color and low income in downtown 10 Charlotte, and how does that square with the 11 President's Executive Order on environmental 12 justice, and how are you going to address that 13 in the thus far inadequate E.J. Appendix to 14 your Environmental Impact Statement? 15 May I have an answer from DOE, 16 please? 17 MS. WHERLEY: I know that the 18 demographics were reviewed around the sites, 19 and I know that that conclusion that you 20 quoted, I believe, stated -- the conclusion was 21 made with the concept of probability of the 22 accident taking into account. There was no 23 intention to say that any of those cancer 24 fatalities were an insignificant impact. 25 MR. GUILD: I'm sorry. I missed the</p>

Page 150

1 last part.  
2 MS. WHERLEY: There was no intention  
3 for there to be any implication that any of the  
4 latent cancer fatalities was considered an  
5 insignificant impact.  
6 MR. GUILD: Your environmental  
7 justice analysis simply looks at the proportion  
8 of a population within 50 miles that meet the  
9 description of being minority or low income.  
10 But of course, that's not the same  
11 population that will suffer the immediate  
12 fatalities or latent cancer facilities in the  
13 event of a beyond design basis accident because  
14 that population is in the plume exposure  
15 pathway. They're the ones that are going to  
16 get the airborne release fission products.  
17 My question for you is: Who in that  
18 plume exposure pathway meets the requirements  
19 under the President's environmental justice  
20 Executive Order of being low income and  
21 minority, what proportion, and will they be  
22 disproportionately impacted?  
23 MR. STEVENSON: That certainly was  
24 taken into consideration because the guidelines  
25 that are given to us when we do environmental

Page 151

1 justice studies do include a requirement for  
2 plume studies.  
3 So when that conclusion was reached,  
4 it did, in fact, take into consideration wind  
5 directions. There are certain wind roses to be  
6 used so that we can determine what are the most  
7 common directions of the wind as a function of  
8 time of year, and all of that supporting data  
9 is used in order to achieve the conclusion to  
10 which we have.  
11 MR. GUILD: Well, I'd ask you to  
12 look at page M6 of your supplement, and I'd  
13 suggest to you that there's no such breakdown  
14 whatsoever in your environmental justice  
15 appendix. It's simply a gross characterization  
16 of the 50-mile radius, and no effort to focus a  
17 wind rose or to determine a plume exposure  
18 pathway.  
19 If I'm mistaken, after the record is  
20 closed, I'd be pleased to be corrected, but I  
21 read it carefully.  
22 MR. NULTON: We'll take just a  
23 minute to go back and look at that section, put  
24 more information in there.  
25 MR. GUILD: I'd appreciate that.

Page 152

1 MR. STEVENSON: Certainly, we wanted  
2 to make sure that you understand that a great  
3 deal of data and analysis went into making sure  
4 that that was a correct and accurate statement.  
5 MR. GUILD: Well, that analysis is  
6 not reflected in the text of your appendix, I  
7 might note, a couple of specific questions,  
8 please.  
9 Once the MOX fabrication facility at  
10 Savannah River, if it ever is to take place,  
11 is -- finishes its useful life for this  
12 program, is there a current plan for its  
13 disposition or future use? And what is the  
14 risk that you will find the Department of  
15 Energy producing commercial mixed-oxide fuel  
16 for the commercial nuclear power industry after  
17 they've done their national plutonium  
18 disposition duty?  
19 MR. NULTON: We have indicated from  
20 the beginning of the program that this would be  
21 a single mission facility.  
22 The contract with DCS requires them  
23 to deactivate the facility at the end of their  
24 mission. It then reverts back to the  
25 Department. We will do the R&D on that

Page 153

1 facility, the decontamination and the  
2 decommissioning.  
3 At that point, a determination will  
4 be made whether to tear the facility down or  
5 use it for some other mission. There is no  
6 chance that it will be used for commercial  
7 fabrication of mixed-oxide fuel --  
8 MR. GUILD: I'm sorry. What other  
9 missions might those be?  
10 MR. NULTON: Well, at the Savannah  
11 River Site, at that point in time, will be  
12 cleanup missions, so it might have some role in  
13 some site cleanup activity.  
14 MR. GUILD: Once mixed-oxide fuel  
15 has been irradiated in the reactors, if it ever  
16 is, the Catawba reactors, McGuire, North Anna,  
17 must it be managed any differently than uranium  
18 based fuel? Will it be for any period of time  
19 stored in on-site fuel storage facilities at  
20 the subject reactors? Is there a capacity in  
21 those pools if such a requirement is needed?  
22 Is there a need for modifying on-site storage  
23 to manage those assemblies once they leave the  
24 reactor?  
25 MR. NESBIT: That's a series of

1 questions. Let me make sure I try to get them  
2 all.

3 MR. GUILD: Sure.

4 MR. NESBIT: The plans are to manage  
5 the mixed-oxide fuel similar to the way that  
6 we'll manage the uranium fuel.

7 Depending on what's going on with  
8 the overall spent fuel program at the time the  
9 mixed-oxide fuel is discharged, initially --  
10 well, we would treat the mixed-oxide fuel the  
11 same as the uranium fuel initially. It will go  
12 into the pool.

13 The fuel stays in the pool for some  
14 number of years. If there's a shortage of pool  
15 capacity, then what we would do is eventually  
16 discharge the fuel from the pool into dry  
17 storage on-site. We're in the process of  
18 developing such a facility at McGuire. We've  
19 already developed such a facility at Oconee.

20 Our plans for mixed-oxide fuel are  
21 essentially to keep it in the pool. The  
22 mixed-oxide fuel long-term decay heat is higher  
23 at a given point in time than uranium fuel, so  
24 therefore, in order to put it in dry storage,  
25 we'd have to let it cool longer anyway, but our

1 order to ensure safe storage of the spent fuel  
2 assemblies.

3 MR. GUILD: I heard a gentleman from  
4 DOE speak to transportation of the fuel prior  
5 to irradiation of mixed-oxide fuel. I  
6 understood that -- one of my questions was  
7 answered. You will be using your DOE -- I  
8 think you called it your SST's.

9 MR. NULTON: Yes.

10 MR. GUILD: Not supersonic  
11 transport.

12 These are the arm-guarded DOE  
13 transport vehicles that carry weapons material.  
14 Is that basically the case?

15 MR. NULTON: Yes.

16 MR. GUILD: I mean, I just want to  
17 make a point to you that I was a participant in  
18 a transportation monitoring project some years  
19 ago, and I must tell you, I met one of these  
20 trucks, these SST's, at a steakhouse at the  
21 intersection of Interstate-20 and  
22 Interstate-26, and I followed it off the  
23 interstate, pulled into the parking lot, and  
24 watched while the crew all went in and had  
25 steaks for an hour and a half, and the truck

1 anticipation is just to keep it in the pool  
2 until we can ship it off-site.

3 MR. GUILD: Just to be clear, so if  
4 you needed extra space, you'd simply take out  
5 uranium based assemblies and dry-store them  
6 on-site to make room for the mixed-oxide  
7 assemblies. Is that what you're saying?

8 MR. NESBIT: That's correct. I  
9 should add that, during the course of the  
10 program, there's not a substantial increase in  
11 the number of total discharge fuel assemblies.  
12 There's a slight increase in the number of  
13 discharge fuel assemblies, so the generation of  
14 spent fuel is essentially the same with and  
15 without MOX fuel.

16 MR. GUILD: Do the mixed-oxide  
17 assemblies, spent assemblies, require any  
18 greater amount of storage space in the pools?  
19 Do they pose additional criticality issues than  
20 the uranium?

21 MR. NESBIT: We don't see any at  
22 this time, but that's one of the system studies  
23 that we will be performing over the next few  
24 years as part of our DOE based contract, and  
25 we'll establish what limitations we need to in

1 with presumably nuclear weapons material -- the  
2 guys who were guarding it sure looked like they  
3 were on the job -- these guys took turns going  
4 and eating steak for an hour and a half while  
5 the truck sat in a parking lot at a public  
6 steakhouse within the city limits of Columbia,  
7 South Carolina.

8 So I'm a little concerned and not  
9 particularly comforted to hear that it will be  
10 the Department of Energy, the SST trucks, that  
11 are going to be hauling this stuff up and down  
12 the highways.

13 That's not a question. That's just  
14 an observation. You answered the question  
15 earlier. Thank you.

16 SENATOR LEVENTIS: Do you know how  
17 much longer you're going to be?

18 MR. GUILD: I have one more  
19 question.

20 SENATOR LEVENTIS: We're going to  
21 take a break and allow Ms. Jeter some time to  
22 get her thoughts together.

23 Everyone has been more than  
24 considerate, and we're going to stay until  
25 everyone who would like to say something does

1 and is allowed to, but go ahead.  
2 MR. GUILD: I'll finish mine. Thank  
3 you very much, Senator.  
4 The last question I have is: The  
5 Price-Anderson Act insulates commercial nuclear  
6 utilities from -- for the exposure to liability  
7 for the consequences of your commercial  
8 activity.  
9 If someone is killed as a result of  
10 a radiation accident at the Catawba Nuclear  
11 Station, one of those 15,600 people in the  
12 hypothetical beyond design basis accident, they  
13 literally have no right to sue Duke Power  
14 Company because the Price-Anderson Act that you  
15 successfully defended before the Supreme Court  
16 insulates you from liability.  
17 The question is: Will receipt of  
18 mixed-oxide fuel at the Catawba and McGuire  
19 reactors require any change in the  
20 Price-Anderson Act? Will the Price-Anderson  
21 Act give you -- will it extend your insulation  
22 from liability for the marginal 1,600  
23 additional deaths that are projected to occur  
24 if there were a beyond design basis accident?  
25 Are you going to need additional liability

1 insurance, Mr. Duke Power Company?  
2 SENATOR LEVENTIS: Do you know the  
3 answer to that about the Price-Anderson Act?  
4 MR. NESBIT: I'm not an expert in  
5 that area, but I think that -- the way it was  
6 characterized may not be entirely accurate.  
7 The Price-Anderson Act, as I  
8 understand it, puts a limitation on liability.  
9 It does not insulate us completely from  
10 liability.  
11 We are required to hold nuclear  
12 insurance up to close to a billion dollars, I  
13 believe, which we do. We've had informal  
14 discussions with our insurers, and they've seen  
15 no need to increase our insurance premiums in  
16 the event that we transition to a different  
17 fuel source that's MOX fuel instead of uranium  
18 fuel.  
19 SENATOR LEVENTIS: Would you, for  
20 us, submit that question to the folks who may  
21 know about whether or not the Price-Anderson  
22 Act would require any modification to --  
23 MR. NULTON: It does not.  
24 MR. NESBIT: Does not.  
25 SENATOR LEVENTIS: All right.

1 MR. GUILD: Again, I appreciate your  
2 indulgence in answering my questions. And I  
3 just would encourage DOE to really rethink this  
4 program. I think it's wholly misguided, and I  
5 appreciate very much that you are now answering  
6 some of our questions about this. Thank you.  
7 SENATOR LEVENTIS: We'll take a  
8 break and try to be a little bit more prompt  
9 and try to reconvene at a quarter after.  
10 (A recess transpired.)  
11 SENATOR LEVENTIS: I'd like to call  
12 Mr. Sipp, please, Peter Sipp.  
13 MR. SIPP: Thank you. Thank you.  
14 I'll make my questions real simple, because  
15 simple is best.  
16 What I want to know is, what is it  
17 going to cost to build this plant, the MOX  
18 plant?  
19 MR. SELBY: The estimate right now  
20 for the construction is approximately 450, 480  
21 million dollars.  
22 MR. SIPP: Uh-huh. Okay. And the  
23 next question is: What would it cost to build  
24 the immobilization plant?  
25 MR. NULTON: It's about the same

1 amount of money. Although, that's changing  
2 because of an increase in facility size that's  
3 recently been projected.  
4 SENATOR LEVENTIS: Increased or --  
5 MR. NULTON: Increased. So the  
6 price is increasing on the immobilization  
7 facility right now, but it's on the order of  
8 500 million dollars.  
9 MR. SIPP: So approximately the  
10 same?  
11 MR. NULTON: Approximately the same,  
12 yes.  
13 MR. SIPP: Okay. So then the  
14 plutonium, it will still be waste -- it will  
15 still be nuclear waste after it's been through  
16 a reactor?  
17 MR. NULTON: Yes. On both cases,  
18 the waste form that's produced will go to a  
19 geological repository as high-level waste.  
20 From the MOX program, it will go in the form of  
21 spent reactor fuel. And in the case of the  
22 immobilization program, it will go in these  
23 large waste canisters with the plutonium  
24 imbedded in the glass waste.  
25 MR. SIPP: Yeah. That's simple

1 enough to understand.  
2 The fourth -- I don't really have a  
3 question. It's really more of a comment. I  
4 was considering investing in Duke Power; but  
5 being that you're looking at it like this, I'm  
6 not going to.  
7 SENATOR LEVENTIS: Thank you,  
8 Mr. Sipp.  
9 Patricia McCracken. Then after  
10 that, Jimmy Mackey.  
11 MS. MCCRACKEN: Hi. I want to put  
12 on the record that at each meeting I go to, I'm  
13 looking for a comprehensive transportation plan  
14 that I have failed to find at any of the  
15 libraries, and underneath it, I believe that  
16 would be required.  
17 I didn't get a handout. I don't  
18 know if I came in late. It was kind of  
19 crowded.  
20 The person from Cogema -- I don't  
21 have your name, sir -- could you tell me if you  
22 have given the DOE the 20-percent ownership of  
23 all the people who have ownership in your  
24 company?  
25 SENATOR LEVENTIS: They have.

1 They're sitting there just, Okay. They have  
2 turned their backs. We've gone to the French.  
3 I'm totally embarrassed.  
4 I think that these companies should  
5 have come forward with at least an advisory  
6 board. I think only 12 people made the  
7 decision to do this contract. I just think  
8 it's a total embarrassment that the American  
9 people knew and their customers knew that they  
10 had not participated any better in offering the  
11 expertise -- I guess that Duke Power has spent  
12 some money to do some expertise, to do some  
13 research, to work with our government. It is a  
14 total embarrassment to have to come here. I  
15 want to go in the back and sing America the  
16 Beautiful.  
17 Again, I mentioned the  
18 transportation plan. I will give the rest of  
19 my comments, you know, at the -- I assume we  
20 can send in written comments.  
21 SENATOR LEVENTIS: Well, the written  
22 comment period for input is to close when?  
23 MR. NULTON: June 28th, but we will  
24 take comments as long as we get them and can  
25 still incorporate them into the document.

1 MS. MCCRACKEN: If 80-percent is  
2 owned by the French, who owns the other  
3 20 percent?  
4 MR. HUGELMANN: A French oil  
5 company, Total, a French oil company.  
6 MS. MCCRACKEN: A French oil  
7 company. I have a little trouble. By the way,  
8 I've not been able to understand you real well.  
9 I have a real bad southern accent. So you may  
10 want to have an interpreter here at the public  
11 hearings.  
12 Can you tell me the name of the  
13 French oil company?  
14 MR. HUGELMANN: Yes. The name is  
15 Total, T-o-t-a-l.  
16 MS. MCCRACKEN: Okay. And I am  
17 glad -- you know, I feel like we could be  
18 standing here with just the Russians and the  
19 French. Thank you, Duke Power, for being here.  
20 What really concerns me, after  
21 reading all these documents, is all the things  
22 we have done for the nuclear industry. We give  
23 them a dump. We subsidize them. We do  
24 research and development. They don't appear at  
25 the meetings. They don't visit Yucca Mountain.

1 We've always taken comments up to the point  
2 where we basically be able to print on the  
3 document.  
4 MS. MCCRACKEN: I don't know who  
5 gives out invitations, but I've been put on  
6 every list to come to the meetings. I have  
7 called Mr. Nulton's office. I called today  
8 just to find out what was going to be going on  
9 at the meeting. I couldn't get a list of  
10 documents. There was no handouts for the  
11 meeting.  
12 I think under such a serious subject  
13 matter, that we should at least have some  
14 handouts so we can follow along the  
15 discussions, you know, of the group, you know,  
16 that's here, so that we can address the panel  
17 and know the names of the people.  
18 SENATOR LEVENTIS: How did you find  
19 out about the meeting?  
20 MS. MCCRACKEN: I saw it in the  
21 Augusta Chronicle, because I did not get on a  
22 mailing list, of which I have requested, you  
23 know, many, many times. Even I called a 1-800  
24 number.  
25 And I appreciate you having, you

1 know, the meetings, so that we do have an  
2 opportunity to come.  
3 One more quick question. When  
4 you're doing the MOX fuel facility, what kind  
5 of energy will be used to run the facility?  
6 MR. SELBY: Standard electricity.  
7 There will be some gas.  
8 MS. MCCRACKEN: I mean, does it use  
9 a lot of energy to run this -- to do all these  
10 processes?  
11 MR. SELBY: I believe the estimate  
12 is around, for the total -- do you remember  
13 what it is in -- we've estimated it at  
14 around -- I think, total energy cost around  
15 5 million dollars, maybe.  
16 MR. HUGELMANN: I can give you an  
17 answer on that. This is not a very analytical  
18 process. This is only electricity mainly for  
19 the machines, for the equipments, electricity  
20 for the venting system, for depression type --  
21 this is not analytical process. This is very  
22 small concentration (inaudible).  
23 MS. MCCRACKEN: Oh, okay. In your  
24 country -- you know, DOE meets with like  
25 military people. Do you have like clearances

1 the leading -- obviously, if you are owned by  
2 the government, you do most of the nuclear  
3 things. Do you sit on any boards or meet with  
4 military people on panels or any, you know,  
5 like boards, advisory boards?  
6 MR. HUGELMANN: No. This is fully  
7 separated in France. Military use of nuclear  
8 energy and civilian use of nuclear energy,  
9 fully separated.  
10 MS. MCCRACKEN: Oh, okay. Because,  
11 you know, like here in this country, this  
12 started out as a domestic program to take care  
13 of domestic waste. It's kind of expanded  
14 beyond what I think anybody ever reasoned in  
15 looking at why we establish something to help  
16 our, you know, American companies.  
17 It's a little disturbing to see how  
18 far reaching -- what started out to be a  
19 repository has now expanded, you know, without  
20 more participation of our American nuclear  
21 industry.  
22 Thank you for the opportunity.  
23 SENATOR LEVENTIS: Thank you very  
24 much. Mr. Mackey? Then after him, Glenn  
25 Carroll.

1 and meet with like military people in your  
2 country like we do here? You know, you're  
3 owned by the government. Do you meet with  
4 military people?  
5 MR. HUGELMAN: The people who have  
6 jobs in the MOX plant and reprocessing plant  
7 are all civilian people. We don't meet  
8 military people.  
9 MS. MCCRACKEN: Okay. But you don't  
10 meet with your government military people in  
11 any way? Like your plant doesn't deal with,  
12 like here, weapons things?  
13 MR. HUGELMANN: In France  
14 military -- (inaudible) military question is  
15 inside a specific organization, but Cogema is  
16 only for the civilian use of nuclear energy.  
17 It is only civilian used.  
18 MS. MCCRACKEN: Oh, okay. I'm not  
19 sure I understood all of that.  
20 MR. NULTON: What he was saying is,  
21 it's a civilian facility for civilian purposes,  
22 no military purpose.  
23 MS. MCCRACKEN: No. I mean, is he  
24 like on an advisory board that meets with  
25 military in any way? You know, are you like

1 SPEAKER: Mr. Mackey went back  
2 earlier.  
3 SENATOR LEVENTIS: Okay. I'm sorry  
4 that we weren't able to get to him. Glenn  
5 Carroll, and then Joan King.  
6 MS. CARROLL: Is this the  
7 microphone?  
8 SENATOR LEVENTIS: Yes.  
9 MS. CARROLL: My name is  
10 Glenn Carroll. I'm from Atlanta, Georgia. I'm  
11 representing GANE, Georgians Against Nuclear  
12 Energy, an all-volunteer group.  
13 GANE applauds the disarmament  
14 efforts in the United States and Russia, which  
15 has brought us to the problem of what to do  
16 with unnecessary plutonium.  
17 We thank you, Senator Leventis, for  
18 bringing us together tonight.  
19 Plutonium has become nuclear waste.  
20 Plutonium is unacceptable as reactor fuel for  
21 many reasons, but we emphasize that plutonium  
22 for MOX fuel is a dangerous experiment, messy  
23 to make, and risky in a reactor.  
24 There are environmental hazards  
25 attendant to transporting and dismantling

1 nuclear warheads and in subsequent  
2 immobilization and storage, even temporary, of  
3 retired plutonium triggers, as well.

4 But the work force at Savannah River  
5 Site has the talent and needed experience for  
6 the honorable mission to immobilize plutonium,  
7 and we offer wholehearted support and  
8 encouragement for them in that activity.

9 I've heard some things tonight that  
10 have made me concerned about the potential of  
11 mining immobilized plutonium, which makes me  
12 think let's do this technology right. It  
13 shouldn't be minable. If we're going to  
14 immobilize plutonium, then we have to make it  
15 so it can't be mined.

16 But we support taking the plutonium  
17 out of the market. We do not support MOX.

18 We understand the allure the MOX  
19 project holds for the SRS community. It  
20 presents a lofty technical challenge and would  
21 provide many jobs.

22 GANE points out that many, many  
23 skilled, experienced people are also needed to  
24 deal with contamination to the environment and  
25 the huge legacy of nuclear waste left from the

1 and for future generations.

2 This has been a really provocative  
3 event, and I cannot thank you enough for  
4 holding it. It's been very different from the  
5 type of hearings I came prepared to address.  
6 And I do have a couple of questions.

7 You say that it's not going to be  
8 the RBMK trinoble type reactor that will be  
9 used. Did you say it was TVRI?

10 MR. NULTON: VVER1000.

11 MS. CARROLL: Do they have  
12 containment?

13 MR. NULTON: Yes.

14 MS. CARROLL: Is it square buildings  
15 or pressure domes?

16 MR. NULTON: Dome containment.

17 MS. CARROLL: That problem with the  
18 safe secure transport in Nebraska, was that the  
19 one that happened during the blizzard?

20 MR. NULTON: I believe it was. It  
21 slid off the highway, I think, into a ditch on  
22 the side of the road.

23 MS. CARROLL: Well, our Georgia  
24 Environmental Radiation manager was the one  
25 that told me about that accident, and he was

1 50-year Cold War.

2 SRS work force has the appropriate  
3 experience and facilities to contribute in the  
4 humane fields of environmental restoration and  
5 nuclear waste containment.

6 We support the plutonium  
7 immobilization effort; but in light of recent  
8 experience with intank precipitation, we urge  
9 that we perfect the technology at a pilot level  
10 first.

11 We are calling on Congress to direct  
12 funding away from the wasteful, harmful MOX  
13 project and give it to projects that support  
14 people and the environment we depend on for  
15 life and health.

16 Georgia shares the risks and  
17 benefits of the Savannah River Site's location  
18 on our boarder. We ask the South Carolina  
19 legislature to work to protect our people and  
20 ecology and to help educate your peers in  
21 Congress.

22 We have at long last the most  
23 welcome opportunity, jobs for a community that  
24 has long proven its patriotism, jobs that  
25 promote peace and environmental health for us

1 concerned about transportation on Georgia's  
2 highways of these materials.

3 And one of the things he raised, and  
4 something he's working on, and I'd like to add  
5 GANE's voice to this is that, the significant  
6 problem there was that there was no trained  
7 personnel present with the shipment to measure  
8 the radiation.

9 So once the accident happened, the  
10 call went out, Come here, we don't even know if  
11 we've released radiation yet.

12 And we think that you've got to -- I  
13 mean, we understand that to deal with this  
14 problem we're going to have to transport stuff,  
15 but we have got to have trained personnel  
16 riding with the shipments.

17 Can you speak to that? Were you  
18 aware of that?

19 MR. STEVENSON: My information is  
20 incomplete on that, and what we can do is  
21 certainly get back to you with that.

22 Yes, I have heard that on certain  
23 trips the radiation detection gear was not on  
24 the trailers, because it was not required.  
25 Okay. That has been reassessed.

1 What I'm not familiar with is the  
2 results of that reassessment, but we can  
3 provide you with that.

4 MS. CARROLL: Well, we just want to  
5 make sure that every single shipment has  
6 trained radiation personnel traveling with it.

7 If Russia doesn't comply with our  
8 agreement and they pursue a breeder program,  
9 what are we going to do about it?

10 MR. NULTON: Well, the Russians at  
11 this point don't have the funding to pursue a  
12 breeder program, but --

13 MS. CARROLL: Well, if they redirect  
14 our funds and pursue a breeder program, what  
15 are we going to do?

16 MR. NULTON: Well, our funds will be  
17 provided in incremental fashions. So if  
18 they -- I mean, we're not going to give them  
19 all the money up front and watch what happens.

20 So the funds will be provided as  
21 they complete elements of work. The work we're  
22 doing with the Russians right now, they get  
23 paid after they do the work, not before.

24 MS. CARROLL: Okay. They trust us  
25 to reimburse them. That's interesting.

1 money.

2 MS. CARROLL: Well, the MOX program  
3 ultimately leaves the legacy that it will be  
4 guarded forever. So I see it as a very  
5 circuitous path that does not take us to the  
6 goal, but takes a lot of money that diverts  
7 effort.

8 And another interesting point that  
9 was just brought up -- and I do want a specific  
10 answer -- how many watts of energy will the MOX  
11 fabrication plant use?

12 MR. NULTON: We don't have that  
13 number off the top of our head. Mr. Hugelman  
14 here was saying that -- it's in the EIS. I  
15 just don't have it off the top of my head.

16 MS. CARROLL: Well, you have an EIS  
17 handy, don't you?

18 MR. NULTON: Not with us here, no.

19 MS. CARROLL: You're kidding? Well,  
20 I just remember when TDA wanted to finish the  
21 Belfort plant in Northern Alabama, they needed  
22 an excuse, somebody to use the excess power  
23 that would be generated. And they said, Oh,  
24 well, we're going to build a uranium enrichment  
25 facility here. It would use half the power we

1 MR. NULTON: We get to see what  
2 we're paying for before we pay for it.

3 MS. CARROLL: I need to make an  
4 observation. All night long, there's been  
5 emphasis that the ratepayers will not take the  
6 hit -- if the expenses are unpredictable, the  
7 ratepayers' rates won't go up. And I wanted to  
8 say out loud on the record -- we all know this,  
9 but let's think about this for a minute. When  
10 the department shells out the money, that's us,  
11 that's our taxes. The department has no other  
12 source of income than us, the taxpayers.

13 MR. NULTON: Let me just say that  
14 any of these programs are requiring money from  
15 the taxpayers; and continuing to store the  
16 material and doing nothing requires a great  
17 deal of money. You have to pay for the  
18 buildings. You have to pay for the security  
19 around those buildings.

20 In fact, over the long haul, that's  
21 probably the most expensive alternative,  
22 because you never get rid of it, and you're  
23 going to be guarding it to the end of time.

24 So we realize that it costs money no  
25 matter what we do, and it's all taxpayers'

1 generate.

2 I'm sure it's a very power-intensive  
3 process. So while we have the benefit of  
4 generating electricity from it, we will gobble  
5 a lot of electricity to do that. So it's --

6 MR. NULTON: Again, the  
7 immobilization facility also requires  
8 electricity to fire up melters and things of  
9 that nature.

10 MS. CARROLL: Good. We need to take  
11 this plutonium out of harm's way, if we have to  
12 refine the technology, if it's minable in the  
13 path we're pursuing, we can't go down that path  
14 until we figure this out.

15 I'm not technical. I'm an artist,  
16 and Arjun could probably help you design what  
17 you need. Could you do that, Arjun?

18 (Laughter.)

19 MS. CARROLL: For a price? I'm  
20 sorry. I don't mean to put you on the spot.

21 DR. MAKHIJANI: I appreciate it.

22 MS. CARROLL: All right. Well, I  
23 think the most important question that I'd like  
24 to know -- I'd like to make an observation on  
25 something else I heard you say, because I'm in

1 Georgia, and the legacy from Jimmy Carter  
2 through every governor since has been, we are  
3 very concerned about activities over at  
4 Savannah River Site. And the policy has been,  
5 at the highest office in Georgia, that until  
6 cleanup occurs, no new facilities, no new  
7 missions. Cleanup of the environment,  
8 containment of the environment is the only  
9 thing that we will support.  
10 And you made the comment, Well, what  
11 are we going to do when 10 years pass and we've  
12 built this -- we've R&D'ed the facility. I  
13 mean, you didn't give that fellow the real  
14 figure, because before we construct the  
15 facility, there's the R&D to do this. So it is  
16 probably twice as much as what you told that  
17 fellow.  
18 So we're going to do that for 10  
19 years. Then for 15 years, we're going to  
20 produce MOX, and then we're going to clean up  
21 the environment. Yeah, right, you know.  
22 So I have a question for you. Our  
23 representative, Nan Orrock, who is represented  
24 here tonight, asked at a legislative meeting in  
25 Georgia, and DOE was present singing the

1 praises of this program and the jobs it would  
2 bring to the Augusta area -- asked and did not  
3 receive an answer. So tonight I give you an  
4 opportunity to answer, or the question will be  
5 on the record, and you can supply the answer  
6 and maybe somehow or another I'll hear about  
7 it. I did not get an invitation to this  
8 either, but I get all the big books. You know,  
9 I got the PEIS. As a volunteer, I don't know  
10 when I'll read that.  
11 What was said, as an assurance to  
12 Georgia, whose stake in this is to have jobs in  
13 the Augusta area, was DOE stated we have a  
14 very -- a high interest in maintaining the work  
15 force at a steady level, and will provide jobs  
16 at a steady level. We will need you at a  
17 steady level.  
18 Ann Orrock's question was, and what  
19 we are very interested in the answer to is:  
20 Have you maximized your effort, both  
21 financially and in personnel, for environmental  
22 cleanup?  
23 MR. NULTON: I'm not sure -- maybe  
24 you need to clarify the question. Maximize in  
25 what regard? I mean, how do we plan for it --

1 MS. CARROLL: Well, this is my  
2 thing. In 1990, that was what we were going to  
3 do program wide, and we had a budget, and we've  
4 since fallen off on the level of will and the  
5 level of money we're putting into cleanup. So  
6 I'm kind of baiting the question.  
7 MR. ANDERSON: Okay.  
8 MS. CARROLL: I know we haven't  
9 maximized it, but I want to hear you tell maybe  
10 what the maximum is.  
11 MR. ANDERSON: Let me try and  
12 address that a little bit. I'm not sure I can  
13 say whether we've maximized it or not. But the  
14 Savannah River Site does have an integrated  
15 priority list of all of its activities for the  
16 amount of budget that it gets.  
17 And the share that the environmental  
18 restoration and the cleanup programs are  
19 receiving at Savannah River is a higher  
20 percentage than it has received in the past.  
21 The other activities that are there  
22 that are related are stabilization activities,  
23 which I referred to earlier. And that makes up  
24 most of the Savannah River budget at this  
25 point.

1 MS. CARROLL: Which is 90 percent  
2 or --  
3 MR. ANDERSON: 90, 95. When I say  
4 most, I'm not talking about just the majority.  
5 MS. CARROLL: Are you going to  
6 maintain spending on cleanup at that level  
7 while bringing up the MOX and the  
8 immobilization program?  
9 MR. ANDERSON: That is the plan.  
10 MS. CARROLL: So actually, jobs will  
11 increase quite a bit, because everybody working  
12 on cleanup will stay working on cleanup, and  
13 everything else will be extra on top of that?  
14 MR. ANDERSON: If it's related to in  
15 peer of people, as far as that's concerned.  
16 MS. CARROLL: So people should be  
17 moving to Augusta to get these jobs.  
18 MR. ANDERSON: Now, the other aspect  
19 of this is that these contracts are being  
20 let -- you know, with bringing in some new  
21 talent, bringing in some additional -- you  
22 know, the joint -- I want to call it a joint  
23 venture, and that's the wrong term.  
24 MR. NULTON: Consortium.  
25 MR. ANDERSON: Consortium with Duke,