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Mixed Oxide Fuel Fabrication Facility

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
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ENVIRONMENTAL IMPACT STATEMENT ON
PROPOSED MIXED OXIDE FUEL FABRICATION FACILITY

+ + + + +
PUBLIC MEETING

+ + + + +
TUESDAY, MAY 8, 2001

+ + + + +
CHARLOTTE, NORTH CAROLINA

+ + + + +
The public meeting convened at the
Charlotte-Mecklenburg Government Center, 600 east
Fourth Street, at 7:00 p.m., Chip Cameron, presiding.

I-N-D-E-X

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

(7:00 p.m.)

1
2
3 MR. CAMERON: Good evening, everybody, and
4 welcome to the NRC's public meeting on the request to
5 construct a mixed oxide fuel fabrication facility, and
6 my name is Chip Cameron. I'm with the Office of
7 General Counsel at the Nuclear Regulatory Commission,
8 and it's my pleasure to serve as your facilitator
9 tonight.

10 I'd like to just talk about three things
11 briefly about the meeting tonight before we get to the
12 substance of the discussion. I'd like to talk about
13 the objectives of the meeting, then go over the format
14 and ground rules for the meeting, and lastly give you
15 an overview of the agenda so that you know what to
16 expect tonight.

17 In terms of objectives, the first one we
18 have is the NRC wants to provide all of you with
19 information about the NRC's responsibilities in regard
20 to this request to construct, and specifically we want
21 to tell you about what the NRC's responsibilities are
22 in regard to the development of the environmental
23 impact statement that is going to be prepared on the
24 NRC's decision.

1 The second objective and the more
2 important one is we want to hear from all of you
3 tonight in terms of your advice, recommendation, views
4 on the potential environmental impacts from this type
5 of facility, and ultimately the goal is to use your
6 comments to assist the NRC in determining what the
7 scope of the environmental impact statement should be.
8 That's why this is called a scoping meeting.

9 The environmental impact statement is a
10 critical document that the NRC uses to help it make a
11 decision on whether to grant the construction request
12 or whether to deny the construction request or whether
13 to put mitigating conditions on the granting of it,
14 and scoping helps the NRC determine what should be
15 looked at in that environmental impact statement, what
16 types of information should be looked at in terms of
17 environmental impact, what types of alternatives
18 should be looked at. So we thank you for being here
19 with us tonight.

20 In terms of format and ground rules, the
21 format that we're going to use is we're going to have
22 a few NRC presentations and they will be brief, but
23 the idea is to give you some background so that you
24 understand what the NRC's responsibilities are going
25 to be, and then we're going to have a question and

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1 answer session. We'll take questions as time permits
2 from all of you to make sure that you understand what
3 the NRC's responsibilities are in regard to this
4 facility and the preparation of the environmental
5 impact statement.

6 The second part of the evening and the
7 bulk of the time tonight is going to be devoted to
8 hearing what you have to say about potential
9 environmental impacts. If you want to ask a question
10 during the question and answer or if you want to make
11 a statement, and I have a sign-up list that I'll talk
12 about in a minute, either signal me and I'll bring
13 this talking stick over to you, okay, or when you make
14 -- especially when you make your comments if you'd
15 like to come up to the podium, please feel free to do
16 that. We're taking a transcript of tonight's meeting
17 and that will be available for all to look at to see
18 what was said here tonight.

19 I would ask that only one person speak at
20 a time, whoever has the floor. That will not only
21 allow us to get a clear transcript of the meeting, but
22 it'll also allow us to give our undivided attention to
23 whoever has the floor this evening. I want to make
24 sure that everybody who came out tonight that wanted
25 to talk gets a chance to talk to us tonight. The

1 unfortunate part of these meetings is that we never
2 have time enough to hear from everybody in terms of
3 all that they want to say, and we do need to put some
4 time limits on speakers tonight because we have
5 approximately two hours of time for comment and we
6 have about 30 speakers already.

7 So it comes down to approximately four
8 minutes per speaker, and I would just ask you to
9 respect that so that we can hear from everybody else
10 in the room. And I would note that you can submit
11 written comments on the scoping issues in which you
12 can go into depth on your remarks, but we wanted to be
13 here with you tonight in person to talk to you, to
14 hear what you had to say, and, importantly, so that
15 others in the community hear what each of you has to
16 say about this particular request to construct a fuel
17 fabrication facility.

18 You also may hear things tonight that will
19 give you information that you might want to use in
20 preparing your written comments. But rest assured
21 what you say tonight will be considered by the NRC in
22 evaluating the comments even if you do not submit any
23 written comments, but I would urge you to give us your
24 detailed comments in writing, but we are going to hear
25 from all of you tonight. This is on the scoping for

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1 the environmental impact statement, and it's already
2 a pretty broad topic so we're going to hear a wide
3 range of views I'm sure.

4 In terms of agenda, we're going to start
5 off with three NRC staff presentations and the first
6 person that we're going to hear from is Charlotte
7 Abrams who is right over here and Charlotte is the
8 section leader in the Environmental and Performance
9 Assessment Branch. Charlotte's section in this branch
10 at the NRC, they are responsible for preparing the
11 environmental impact statement on this particular
12 facility. As you will hear, that environmental impact
13 statement will be considered with an NRC safety
14 assessment so that the NRC can decide whether this
15 request should be granted.

16 Now, I wanted to tell you a little bit
17 about Charlotte. She has a master's degree in
18 geology. She's been with the NRC for 15 years and she
19 was with the United States Geological Survey and the
20 State of Georgia Geological Survey.

21 Because we know there's a lot of interest
22 in the reactor aspect of this we have added a short
23 presentation tonight by Bob Martin who is with our
24 Office of Nuclear Reactor Regulation at the NRC. He's
25 the senior project manager in the NRC's Division of

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1 Licensing and Project Management. Bob, could you just
2 make sure everybody knows who you are. He's been with
3 the NRC for 25 years and his educational background is
4 in the area of nuclear and mechanical engineering.

5 Last speaker, before we go to all of you
6 for at least a short round of questions, is Jennifer
7 Davis, and Jennifer is right here. Jennifer is the
8 environmental project manager for the NRC on this
9 request, and she has a bachelor's degree in materials
10 engineering from Virginia Tech, master's degree from
11 the University of Maryland also in materials
12 engineering. She's worked for the NRC for ten years
13 and she's the lead environmental reviewer on this
14 construction authorization request.

15 Again, thanks for being here. We have
16 other NRC staff here from various offices in case
17 questions come up that need to be answered and as the
18 facilitator for the meeting I'll try to make sure that
19 everybody gets a chance to speak and that we remain
20 organized and on time and try to make sure that what
21 the NRC is saying to you tonight is clear and
22 understandable. I'm also going to keep track of what
23 I call action items. These are requests for
24 information, questions about the process so that when
25 the NRC walks out of here tonight besides your scoping

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1 -- comments on scoping there'll be a list that they
2 will respond to and I believe it's going to be -- that
3 will be responded to before the scoping report, and
4 with that what I'd like to do is ask Charlotte to come
5 up and make her presentation.

6 MS. ABRAMS: All right. As Chip
7 mentioned, I'm Charlotte Abrams. I'm the section
8 leader of the Environmental and Low Waste section
9 which is within the Environmental and Performance
10 Assessment Branch of the NRC, and my phone number and
11 E-mail address also are there, too, for you to use
12 that. Before I get started I want to thank everybody
13 for coming to the open house that we're here tonight.
14 We really appreciate you coming and we would like for
15 any of you and all of you to --

16 MR. CAMERON: I think we're going to have
17 to speak up a little bit.

18 MS. ABRAMS: All right. I'll talk very
19 loud. You got feedback forms when you came in at the
20 table from the folks at the table, and we would
21 appreciate if you would fill out those feedback forms
22 and get them back to us, so we would appreciate any
23 information we can get about our meeting and about the
24 open house.

1 Tonight we're going to talk about scoping
2 for the environmental impact statement for the MOX,
3 mixed oxide fuel fabrication facility. Scoping is a
4 major part of the EIS process, and it's a first step
5 in the preparation of an environmental impact
6 statement after we issue the notice of intent to
7 undertake the EIS process. Tonight I'm going to --
8 I'll kind of tell you what I'm going to do. I'm going
9 to describe NRC's role in this process and describe
10 the EIS process, that'll be done by Jennifer who will
11 follow me, and then we also want to listen to your
12 comments, and that's the most important part of this
13 meeting as Chip mentioned.

14 Your comments are significant to helping
15 us in identifying alternatives and also issues that we
16 need to address that will be associated with the mixed
17 oxide fuel fabrication facility in the construction
18 review and then later the operations like it should
19 be.

20 I want to point out NRC's role, and NRC is
21 an independent government agency. We report directly
22 to Congress. This is unlike DOE. It's different from
23 the DOE, the Department of Energy. They're an
24 executive branch or agency and they report to the
25 President. Our mission, which is stated up there, is

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1 to protect public health and safety and the
2 environment, and we accomplish this in several ways.

3 One of the ways we accomplish it is we
4 develop regulations and anyone who is licensed by the
5 NRC has to adhere to those regulations, but also a
6 license can be conditioned and spell out certain
7 conditions that the licensee would also have to meet.
8 If the regulations or the license conditions are not
9 being met by a licensee then we can take enforcement
10 action, and also one of the ways we can make sure that
11 this is happening is we conduct frequent and periodic
12 inspection of our licensees.

13 I'm going to go into -- just briefly touch
14 on a little bit of history related to the MOX project.
15 The proposed MOX project started with a nuclear non-
16 proliferation agreement between the United States and
17 Russia, and a national policy was set to reduce the
18 spread of nuclear weapons and reduce the surplus of
19 plutonium, the plutonium stockpile.

20 Some of the key organizations involved in
21 the MOX project are DOE, which is an executive branch
22 agency that's responsible for implementing the nuclear
23 non-proliferation policy. DOE conducted an
24 environmental impact statement on disposition of the
25 surplus plutonium. They looked at several approaches

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1 to doing this and they also looked at several sites,
2 and they decided to construct facilities at the
3 Savannah River Site.

4 DOE contracted with Duke COGEMA, Stone &
5 Webster and you'll hear them referred to tonight as
6 DCS. They contracted with DCS to construct and
7 operate a mixed oxide fuel fabrication facility. In
8 1998 Congress gave NRC the licensing authority for the
9 MOX fuel fabrication facility and NRC is responsible
10 for determining whether or not to license the proposed
11 MOX facility.

12 This is just a schematic to give you an
13 idea of what's involved. The shaded area is actually
14 the NRC activity. The weapons material would be
15 disassembled and converted to plutonium oxide powder,
16 and you can see there DOE weapons plutonium powder.
17 The proposed mixed oxide fuel fabrication would mix
18 the plutonium powder with depleted uranium to make
19 mixed oxide reactor fuel, and NRC is responsible for
20 the licensing of the fuel fabrication facility and the
21 activities associated with the use of any of the MOX
22 fuel.

23 Now I'd like to discuss the licensing
24 process for the proposed MOX fuel fabrication
25 facility. Bob Martin who is going to follow me is

1 going to discuss the reactor licensing process. DCS
2 has chosen to submit its license application in two
3 parts; request for construction and then a request for
4 operation. DCS has submitted an environmental report
5 and they submitted that in December of 2000, and a
6 construction authorization request which was submitted
7 in February of this year. DCS plans to follow this
8 with a submission of the operation authorization
9 request in July of 2002.

10 NRC will prepare an environmental impact
11 statement for this action and Jennifer will go into a
12 little more detail of our environmental impact
13 statement process when she speaks. The MOX
14 environmental impact statement will cover both the
15 construction and the operation aspects and the impact
16 of those two activities. NRC will also prepare a
17 safety evaluation report for the construction and
18 operation request and another safety evaluation will
19 be done for the operation request. So you're going to
20 have three documents, three reviews. These documents
21 will form the basis for whether or not we license the
22 proposed MOX fuel fabrication facility. I will
23 discuss the timing of the different things in just a
24 moment.

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1 Other possible licensing actions that
2 could occur associated with the MOX fuel fabrication
3 project would be a fresh fuel cask certification and
4 this we believe will -- you'll get in the fall of
5 2002. This would be a certification package. There
6 would also be, if submitted, NRC licensing action for
7 the use of MOX fuel in a reactor so we would have to
8 also review that action before we could approve it.

9 As far as our schedule, I want to stress
10 again that scoping is an opportunity for you to get
11 involved and make your comments known, provide us with
12 comments and provide us with input for the
13 environmental impact statement. Another more formal
14 opportunity is the hearing process. It's another
15 opportunity for you, again, to influence the project.
16 The opportunity for hearing was noticed on April 18th
17 and petitions should be filed by May 18th.

18 The draft environmental impact statement,
19 and you can see that's anticipated in February 2002.
20 That's another important opportunity for you to get
21 involved in the process. We will be asking for public
22 comments on any draft environmental impact statement
23 we issue, so we would want the public to comment.
24 There will be an opportunity to meet with us, comment,
25 and also an opportunity for you to comment in writing.

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1 Those comments would be addressed and considered for
2 the final environmental impact statement.

3 The draft EIS and the draft safety
4 evaluation for the construction authorization are
5 planned to be issued in the spring 2002. DCS, again,
6 DCS plans to submit its operation authorization in
7 July of 2002 and our final EIS and safety evaluation
8 will be -- for construction will be issued in 2002.
9 We'll make a decision on construction of the proposed
10 MOX fuel fabrication facility in October of 2002, and
11 a final decision on whether or not to license the
12 facility is planned for early 2004. Now I'm going to
13 turn it over to Bob.

14 MR. CAMERON: Okay. Thank you, Charlotte.
15 Bob Martin from Nuclear Reactor Regulation.

16 MR. MARTIN: Good evening. Am I heard
17 well? I'm Bob Martin. I'm the senior project manager
18 with the Office of Nuclear Reactor Regulation in our
19 headquarters office in Rockville, Maryland. I am
20 responsible for the coordination of the review of any
21 application that may be submitted to us for the use of
22 mixed oxide fuel in the Catawba and McGuire reactors.

23 Two of the major components of the overall
24 MOX program are the proposed fuel fabrication facility
25 to manufacture the fuel assemblies, which has just

1 been discussed, and then the second major component is
2 the irradiation of those manufactured fuel assemblies
3 in a reactor. So it's to achieve the appropriate non-
4 proliferation standards for protection of materials.

5 The purpose of our meeting tonight is to
6 receive your input for NRC's environmental review of
7 the fuel fabrication facility at the Savannah River
8 Site. However, I attended several recent scoping
9 meetings and based on the comments of several stake
10 holders in those meetings I would like to offer you
11 some general thoughts on the review process that will
12 take place when the NRC receives an application to use
13 MOX at the McGuire and the Catawba nuclear power
14 plants. Excuse me, I'm fighting allergies this week
15 so that's the reason for the incessant clearing of my
16 throat.

17 In preparation for this application during
18 the past few years we've held several meetings with
19 the prospective licensee and the licensee has
20 submitted a fuel design report for informational
21 purposes. A summary of these meetings, as is common
22 practice, can be found in the public document room.
23 A copy of that fuel qualification report is also
24 available from the NRC's public document room. As
25 described in those documents, the licensee has

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1 outlined a program with several major phases and
2 schedules that would be needed to meet the program
3 objectives. Next slide, please.

4 The program is projected to include two
5 major phases. This is a program for irradiation of
6 the fuel assemblies in the reactor. First, the lead
7 test assembly program has been described which would
8 be subject to an NRC review. The use of mixed oxide
9 fuel at these plants would represent a design change
10 in the fuel that they use. It is common in U.S.
11 commercial nuclear power industry to confirm the
12 available knowledge about a new fuel design with a
13 lead test assembly program.

14 This slide shows August 2001 as the
15 prospective start date for the LTA review. That is
16 based on the most recent documented information from
17 the licensee. However, it was recently indicated
18 through communications with them that they are still
19 working, both DCS and DOE are working on alternative
20 plans for the fabrication of the LTAs and as a result
21 we understand that the August 2001 date may be delayed
22 somewhat.

23 Provided that we then receive an
24 application, review it and approve it, the LTAs would
25 be irradiated for several fuel cycles in a reactor and

1 then examined to confirm that their performance met
2 expectations. This is scheduled to be completed prior
3 to the completion of the staff's review of the second
4 major phase of a reactor program which would be the
5 production irradiation program. That's scheduled for
6 completion in about March 2006. These dates have been
7 established by the licensee to support meeting the
8 program objective of beginning production irradiation
9 by October 2007. Next slide.

10 This is an overview of the license
11 amendment process for a nuclear power plant
12 application. Review of the application will follow
13 the same documented process as we use for the review
14 of license amendment applications in general for
15 nuclear power plants. On receipt of the application
16 we would issue a notice in the Federal Register. This
17 notice will announce the opportunity for interested
18 parties to request a hearing on the license
19 application.

20 The staff will then conduct a safety
21 evaluation of what the licensee has proposed. The
22 evaluation will take place over a number of months and
23 may involve requests for additional information that
24 the staff would make to the licensee, and may involve
25 technical communications to facilitate our

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1 communications with the licensee. The requests for
2 additional information will be available to the
3 public, and the meetings that take place will be open
4 for observation by the public. The only exceptions to
5 that being where proprietary information is involved
6 or security and safeguards information is involved
7 pursuant to our regulations. If we find that what the
8 licensee proposes is acceptable, the safety evaluation
9 will set forth the basis for the staff's conclusions
10 that the licensee's application satisfies applicable
11 regulatory requirements.

12 The safety evaluation will also reflect
13 that the appropriate communications have been made
14 with the states and will reflect the appropriate
15 considerations for any environmental impacts. The
16 environmental impacts will also be reported in either
17 the environmental impact assessment or environmental
18 impact statement pursuant to our regulations in Part
19 51. The license amendment process also includes
20 resolution of hearing issues. Next slide.

21 I would now like to offer a few comments
22 on the staff technical approach to reviewing the use
23 of MOX fuel. We believe that the existing NRC safety
24 requirements are appropriate for evaluation of MOX
25 fuel safety. That is, the acceptability of the design

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1 of MOX fuel will be measured by whether it meets the
2 same safety criteria for performance of the fuel as
3 are now contained in our regulatory requirements. The
4 NRC staff will review the licensee's proposals.
5 However, I would like to emphasize that in meeting the
6 requirements of that review by the staff the burden is
7 on the licensee to provide sufficient information to
8 demonstrate compliance with safety requirements.

9 The NRC staff plans to perform a certain
10 level of independent confirmatory evaluation in
11 parallel with the review of the licensee's submittal.
12 For that purpose we are going to need to modify some
13 of our currently existing analytical tools to enable
14 us to do that confirmatory evaluation. We have
15 initiated some research and development activities to
16 assist us in that confirmatory review. These
17 activities include modification of our analytical
18 tools in the areas of reactor physics, fuel behavior
19 and the radiological source terms to be used in the
20 transient and accident analyses. I would like to
21 summarize by saying that NRC will approve the use of
22 MOX at these plants only if the results of our review
23 show that the plants will continue to meet NRC
24 regulatory requirements for public health and safety
25 and protection of the environment.

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1 MR. CAMERON: Okay. Thanks a lot, Bob.
2 We're going to ask Jennifer Davis to talk about the
3 environmental impact statement process now and we'll
4 go out to start questions. Jennifer.

5 M S . D A V I S :
6 Should I move this? I think I need to walk
7 around.

8 UNIDENTIFIED SPEAKER: Is that bjd1 or
9 bjd1?

10 MS. DAVIS: Bjd1. Apparently there's
11 another bjd at the NRC so I've got a number after my
12 E-mail address. So my name is Jennifer Davis. I am
13 the environmental review lead for licensing of the
14 proposed MOX fuel fabrication facility. I would also
15 like to recognize Tim Harris who is the lead for the
16 scoping process. I think a lot of you have met him at
17 previous meetings or have talked with him before in
18 arranging for this meeting.

19 Today I'm going to talk about why we are
20 doing environmental impact statements and briefly
21 describe the process. As many of you probably know,
22 the National Environmental Policy Act, NEPA, requires
23 that we do an environmental impact statement for major
24 federal actions and we consider the licensing review
25 for the MOX fuel fabrication facility to be a major

1 federal action. So the environmental impact statement
2 will look at the range of impacts from construction
3 through decommissioning. It's used as a decision-
4 making tool and will provide input to the licensing
5 decision that's going to be made later next year.

6 One of the primary areas that's looked at
7 with respect to environmental impact statements is, of
8 course, the impact. Impact can be either positive or
9 negative. We look at both radiological and non-
10 radiological impacts. There are basically three
11 different categories of impacts.

12 The first of these is direct impact. An
13 example of a direct impact from a facility would be
14 air emissions from the facility. A second category of
15 impact is indirect impact and an example of an
16 indirect impact is, for example, economic growth in
17 the area from the proposed facility. Finally, there
18 is a category called cumulative impacts, and what
19 cumulative impacts looks at is the impact of the
20 proposed facility in conjunction with the impacts from
21 past activities at the site, present activities at a
22 site and reasonably planned future activities at the
23 site. So it's an accumulation of all of the potential
24 impacts so it doesn't look at the fuel -- proposed
25 fuel fabrication facility in isolation.

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1 Another aspect of the environmental impact
2 statement is the alternatives, and we will be looking
3 at -- the first alternative is the proposed action
4 which would be licensing the facility. The second
5 alternative would be the no action alternative and
6 that would be not to license the facility. This
7 process is a little different than the normal
8 environmental impact statement process because
9 Department of Energy has already made a decision and
10 determined the need and location for this facility so
11 we are limited -- so far we've only identified these
12 two alternatives, and one of the things we'd like to
13 get from you all during scoping is potential other
14 alternatives that we should be looking at as we go
15 through the environmental impact statement process.

16 The next slide is a schematic of the
17 process, and if you'll note, the two areas in blue
18 highlight the opportunities for public involvement.
19 As Charlotte said, we did receive the environmental
20 report in December of 2000. We received the
21 construction authorization request in February of this
22 year. We issued our notice of our intent to prepare
23 an environmental impact statement on March 7th and
24 there are copies of that outside on the sign-up table
25 if anyone is interested.

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1 Of course, we are right now in the scoping
2 process. This is the last of the three scoping
3 meetings and we will be receiving written comments
4 until May 21st. Now, our address to submit the
5 written comments is on some of the materials outside.
6 You can also submit them on the feedback form, we can
7 take written comments by the feedback form. If you
8 don't get your comments in by May 21st we will
9 consider comments that come in afterwards if we can,
10 but they may not make it into our scoping summary
11 report, there may not be time.

12 We plan to issue the scoping summary
13 report in July of this year. That will be followed by
14 our intensive environmental review resulting in a
15 draft environmental impact statement which we plan to
16 have available in February of next year, February of
17 '02, and that will be followed, of course, by a public
18 comment period. We would anticipate having some
19 public meetings as part of that public comment period
20 and then also accepting written comments, and those
21 written comments would be addressed as part of the
22 final environmental impact statement and we expect to
23 be publishing that in September of 2002.

24 To give you a little bit of background on
25 the proposed fuel fabrication facility, this is a map

1 showing the Savannah River Site. It's about 310
2 acres. It's in South Carolina on the border with
3 Georgia.

4 UNIDENTIFIED SPEAKER: 310 square miles.

5 MS. DAVIS: I'm sorry?

6 UNIDENTIFIED SPEAKER: You said 310 acres.
7 310 square miles.

8 MS. DAVIS: Oh, I'm sorry. Forgive me.
9 And the proposed MOX fuel fabrication facility will be
10 located in the F area which is at the north end of the
11 Savannah River Site. The next map shows a blow-up of
12 the F area, and the F area, by the way -- I'm sorry.
13 The Savannah River Site is a restricted area, it
14 restricts public access, and there is a boundary. The
15 proposed MOX fuel fabrication facility in the F area
16 will be about six miles inside of the restricted
17 boundary.

18 So this shows a blowup of the F area and,
19 if you'll note, the proposed facility will go at the
20 north end of the F area. It's going to be on about 41
21 acres and there are some other activities currently
22 ongoing in the F area. There are -- excuse me, there
23 is the F canyon which is used for chemical separations
24 and there are some high level waste storage tanks on
25 F area as well. So those are the types of things we

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1 would consider with the discussion of cumulative
2 impacts, other activities that are ongoing in the F
3 area.

4 The next slide shows an artist's rendition
5 of the proposed facility and the facility would be --
6 would consist of several buildings, paved areas, and
7 the inputs to the facility would be plutonium powder
8 from weapons plutonium and depleted uranium from a
9 Department of Energy stockpile, and the location of
10 that stockpile has not yet been identified.

11 Then the output of the facility would, of
12 course, be MOX fuel assemblies for use in commercial
13 reactors. Those would go to commercial reactors to be
14 irradiated to generate electricity. Potentially, they
15 could be stored at the reactor sites until they were
16 ready to be shipped for disposal at the proposed
17 geologic repository.

18 The next two slides are a list of
19 potential topics that we would consider in an
20 environmental impact statement process. This list is
21 not all inclusive. It's really just meant to stir
22 some discussion later on, although from the
23 indications I think we're going to have quite a bit of
24 input already, but just to give an example, some of
25 them are pretty self explanatory. Air quality and

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1 noise, air quality could be affected by air emissions
2 from the proposed facility. Noise could occur during
3 construction and also during operations.

4 Cultural resources is not as apparent.
5 That involves protection of archaeological resources and
6 historic resources. Those are protected by the
7 National Historic Preservation Act and we'll be
8 consulting with the state historic preservation
9 officer to examine the impacts -- to help examine the
10 impacts to those resources. Terrestrial and aquatic
11 ecology include plants and animals in the vicinity.
12 This would also include impact of loss of local
13 habitats and potentially bio-diversity.

14 The next category is land use. That talks
15 about planned present or future land use of the site
16 if it were not used to site the proposed facility, and
17 it's linked to socioeconomic impact. Socioeconomic
18 impact includes a number of things like population
19 growth in the area, increased employment, tax changes,
20 changes in services such as fire protection, police
21 protection and education, and the final topic on this
22 slide is aesthetics. Would the site of the proposed
23 MOX fuel fabrication facility in F area visually
24 degrade F area or the Savannah River Site.

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1 This list continues on the next slide
2 starting off with surface and ground water. Surface
3 and ground water impacts are important and will be
4 evaluated in the context of local streams and the
5 aquifers underlying the F area. These also go to
6 human health impacts. Human health impacts are
7 related to water quality, air quality and ecological
8 impacts. They're all tied in together. Related to
9 this is the environmental justice discussion. What
10 environmental justice looks at is are there dis-
11 proportionately high impacts to low income or minority
12 populations in the area.

13 The next topic, waste management, is an
14 area that's typically considered in an environmental
15 impact statement and we know that the MOX fuel
16 fabrication facility would generate low level waste,
17 mixed waste and also a high alpha waste stream. So
18 that's something we would look at within the
19 environmental impact statement.

20 Another area that's typically considered
21 in the environmental impact statement is
22 decommissioning. Now, what we've seen so far is that
23 DCS, Duke COGEMA, Stone & Webster will be responsible
24 for deactivating the facility and then it would be
25 decommissioned at some future time. That's another

1 thing we'd like to get input on from you all is how do
2 we address deactivation versus decommissioning in an
3 environmental impact statement.

4 Finally, and I think the reason a lot of
5 you all are here are reactor use impacts. These would
6 be an indirect effect in the context of the
7 environmental impact statement for construction and
8 operation of the proposed facility, and what we would
9 look at if we looked at those is the impacts from
10 irradiation of the reactor fuel, potential impacts
11 from storage of the spent fuel at the site, and the
12 eventual disposal. And that's one of the areas we
13 would like to get input on from you all is how should
14 we consider the reactor impact within the MOX fuel
15 fabrication facility environmental impact statement
16 and if we should consider those.

17 To summarize, we've got a series of next
18 steps. As I said, we'll be publishing the scoping
19 summary in July of this year. We plan to -- I'm
20 sorry. We will be accepting written scoping comments
21 until May 21st and will take -- try to take into
22 consideration anything that comes in after that,
23 although it probably won't make it into the scoping
24 report. The scoping summary report, July of '01, will
25 be followed by the draft environmental impact

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1 statement which is planned February of 2002, and that
2 will be followed by the final environmental impact
3 statement in September of 2002. So that completes my
4 presentation. I'd like to thank you all for your time
5 and attention and I look forward to hearing your
6 comments.

7 MR. CAMERON: Okay. Thank you, Jennifer.
8 We have about 15 minutes for questions before we get
9 into the comments from tonight, and let me see if --
10 there's questions here, and please tell us your name
11 for the transcript.

12 MR. JOCOY: I'm Greg Jocoy. Is there an
13 E-mail address we can use to send our written comments
14 to and, if so, what is it, please?

15 MR. CAMERON: Tim?

16 MR. HARRIS: Actually it's my E-mail
17 address. It's teh@nrc.gov.

18 MR. CAMERON: Okay. That's teh@nrc.gov.

19 MR. HARRIS: Yeah. All the ways to submit
20 comments are included on the fact sheet which Betty
21 had out at the table so there's other means as well.

22 MR. CAMERON: Thank you. Sir, did you
23 have a question?

1 MR. MAHOOD: I wondered about when did
2 this whole idea begin? When did we first start
3 thinking of using MOX fuel?

4 MR. CAMERON: Could you just tell us your
5 name?

6 M R . M A H O O D :
7 Robert Mahood.

8 MR. CAMERON: Robert Mahood. Anybody want
9 to handle that question? Jennifer?

10 MS. DAVIS: I'm not sure if it started any
11 earlier than this, but I know I was involved in
12 discussions with the Department of Energy as early as
13 1995. They were looking at whole series of possible
14 plutonium disposition options including deep bore hole
15 disposal, immobilization, MOX. I think there were a
16 number of others. I don't recall off hand what they
17 were. So it's been going on for some time now.

18 MR. CAMERON: Thank you very much. Let's
19 go over here and then we'll go back over that way.

20 MR. COLEY: Thank you. Joe Coley. When
21 Jennifer is talking about potential impacts in an
22 environmental impact statement she was focusing, I
23 thought, on impacts on normal operation and the
24 reactor use is one category, but again, under normal

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1 operation. Would the environmental impact assessment
2 also consider a non-normal operation like an accident?

3 MR. CAMERON: Okay. Jennifer, I think you
4 got the gist of that question, right, from Mr. Coley?

5 MS. DAVIS: Yeah, I'm sorry. I meant to
6 point out we would look at normal and off normal or
7 accident conditions, particularly in the area of
8 transportation and for the fuel fabrication facility
9 operation itself.

10 MR. CAMERON: Thank you.

11 MS. OLSON: Mary Olson. I have three
12 quick yes or no answer kind of questions. The first
13 is, is there more plutonium in the irradiated fuel,
14 than high level waste? The second is, will weapons
15 grade plutonium be used for the lead test assembly to
16 sample, and the third is will there be another
17 environmental impact statement if and when Duke
18 decides to apply for a license amendment?

19 MR. CAMERON: To the extent that we can
20 give yes or nos, I think that first one maybe is
21 yours?

22 MS. DAVIS: I'm not sure about the first
23 one. I can answer the last one. If there is any
24 need, we will do a supplemental MOX facility
25 environmental impact statement and that will depend on

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1 the content of the license amendment. There will be
2 an environmental review for reactor use, and that
3 could be either an environmental assessment or an EIS.

4 MR. CAMERON: Let me go to Bob Martin to
5 try to answer your other questions, Mary. Bob, do you
6 remember the question?

7 M R . M A R T I N :

8 I believe one of the questions was will weapons
9 grade plutonium be used in the lead test assemblies.
10 As we understand the plans at this time that is the
11 plan. That would obviously be the closest parallel to
12 what is going to be seen in the reactor production
13 cycle. Does that answer your question?

14 MS. OLSON: Yeah, it does. (indiscernible)

15 M R . M A R T I N :

16 Is there more plutonium than uranium?

17 MS. OLSON: In the irradiated fuel, MOX
18 irradiated fuel --

19 MR. MARTIN: Right.

20 M S . O L S O N :

21 -- does it have more plutonium than irradiated
22 fuel from low waste -- in other words --

23 UNIDENTIFIED SPEAKER: Is it 50/50?

24 M R . M A R T I N :

25 I believe the numbers at the end of the cycle if

1 you start out with a low enriched uranium, you know,
2 of course, as you're aware, low enriched uranium fuel
3 assembly as it's irradiated, a certain amount of
4 plutonium is generated and is burned leaving a certain
5 amount at the end of the cycle. When you start out
6 with a MOX fuel assembly and irradiate it for a cycle
7 you will consume a lot of it in the cycle leaving some
8 in spent fuel form when you take it out of the
9 reactor. I don't remember the exact numbers. I think
10 they are very comparable down into the one to two
11 percent range.

12 MR. CAMERON: Not exactly a yes or no, but
13 -- let's go over here and then we'll come back over.
14 Yes, sir, if you could just identify yourself.

15 MR. PIERCE: My name is Brian Pierce. My
16 question deals with the composition of the MOX fuel.
17 Jennifer mentioned depleted uranium and we know from
18 (indiscernible) between them, but say right now what
19 is the composition of fresh MOX fuel?

20 MR. CAMERON: Bob, can you answer that one
21 for us? Great.

22 M R . M A R T I N :

23 I think the question was what is the composition
24 of a fresh, MOX fuel assembly?

25 MR. PIERCE: Yes.

1 MR. MARTIN: The most precise information
2 we have on that right now is in the fuel qualification
3 report. You remember that report that I mentioned
4 that the licensee has submitted to us for information?
5 There are technical details in that report regarding
6 the design characteristics of the fuel including that
7 information. It's available through the NRC's web
8 site.

9 MR. CAMERON: Thank you.

10 MR. PIERCE: Is it just a simple
11 statement?

12 MR. CAMERON: Simple statement?

13 MR. PIERCE: Yes. There is mention of
14 depleted uranium going into it, is there a -- 20
15 percent rich uranium?

16 MR. MARTIN: Not that I can recall from
17 memory right now.

18 MR. PIERCE: The depleted uranium and
19 weapons grade plutonium?

20 MR. MARTIN: Yes. Yes.

21 MR. CAMERON: Before we maybe put up an
22 action item here I'll just do a shorthand since we've
23 had a couple of questions on composition of MOX fuel
24 and see if we can provide some more information on
25 that.

1 MR. JOHNSON: It's right here.

2 MR. CAMERON: Oh, Tim, are you -- good.

3 All right. This is Tim Johnson from NRC staff.

4 MR. JOHNSON: The fresh fuel will have
5 four to six percent plutonium oxide in it. The
6 remainder will be depleted uranium oxide. Does that
7 answer your question?

8 M R . P I E R C E :

9 It certainly does.

10 MR. CAMERON: Okay. Great. We're going
11 to come back over to you. We'll go right here and
12 then we'll go to these two ladies and then back over.

13 MR. SIFF: Thank you, Chip. I have a
14 question. My name is Pete Siff. I have a question
15 for Bob Martin. Bob, what is -- can you -- I'd be
16 interested to know what the placement of the MOX fuel
17 is going to be in the reactor. Would you be able to
18 tell us about that a little bit?

19 MR. MARTIN: The licensee has not
20 submitted an application yet so we don't have that
21 level of information. The information they have
22 offered us, it came to us in this fuel qualification
23 report, is that the core will go up to about 40
24 percent. Once it's been through several cycles and
25 reached an equilibrium fuel cycle, the MOX loading

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1 will be about 40 percent of the number of fuel
2 assemblies in the core with the MOX fuel assembly.

3 MR. CAMERON: And Bob, can you stand up
4 for one second? I just wanted to emphasize so that
5 everybody understands that the point that you're
6 making is that until we receive a license application
7 for use of this fuel at the reactor there's a lot of
8 data that we don't have, but can you also tell us who
9 will be -- when you refer to the licensee and the
10 license applicant, who would that be in terms of the
11 use of the fuel at the reactor?

12 MR. MARTIN: Well, DCS is the licensee for
13 the overall project. DCS has contracted for certain
14 services to be performed by Duke, for instance, in
15 connection with the reactors, and it's also contracted
16 for fuel manufacturing services to be provided by
17 Framatome, those are two of the organizations
18 involved. But I would also add that the reason we're
19 saying we can't answer that yet, is -- the core
20 designer has certain choices regarding where they wish
21 to put the fuel assemblies in the reactor, and that is
22 a body of work that they have not completed and have
23 not presented to us yet.

24 MR. CAMERON: Okay. Let's go right here.

1 MS. MALAHOF: I wondered if the -- Grace
2 Malahof -- the energy -- the EIS might --

3 MR. CAMERON: Grace? Is it Grace?

4 MS. MALAHOF: Yes.

5 MR. CAMERON: Grace Malahof.

6 MS. MALAHOF: If the EIS might include some
7 material that is not included in the EIS from other
8 kinds of projects. For example, the ultimate result
9 of this effort would be to produce energy, at least
10 that was my assumption when I came here. Apparently
11 it's also to get rid of weapons grade plutonium. Now,
12 these are two very large, important objectives, but
13 the EIS would have -- really would have to evaluate
14 in certain ways the possibility of doing either one.
15 For example, to produce energy you might want to do
16 one thing that would cost less than what is being
17 proposed here. You might be able to do this same
18 amount of energy with far less economic investment,
19 dislocation, you know, using up resources. You would
20 still be left with the question of whether
21 immobilization was another option, but I didn't see
22 the actual cost evaluations included in the EIS as
23 part of the material. Thank you.

24 MR. CAMERON: Comments on Grace's
25 suggestion and question?

1 MS. DAVIS: I think you've raised a very
2 good point. Part of that determination of how we're
3 going to address those things is one of the things
4 that we hope to come out of scoping, and part of that
5 is going to arise from our definition of the purpose
6 and need of the proposed action, and so right now that
7 is focused on disposition of surplus weapons
8 plutonium, but, of course, there will be energy
9 generation aspects. We will be doing some sort, some
10 level of cost benefit analysis as part of the
11 environmental impact statement.

12 MR. CAMERON: Can we flag that as a
13 scoping comment, too? I think that falls into that
14 category.

15 MS. DAVIS: All right.

16 MS. MYERS: I have the same question. I
17 was wondering --

18 MR. CAMERON: State who you are.

19 MS. MYERS: Mary Myers. I was wondering
20 if they had a study that includes the cost -- the most
21 dangerous plus the cheapest way to go.

22 MS. DAVIS: We are at the very beginning
23 of our process. So that's something we will be
24 looking at as we go. I'm not sure that it is going to
25 come out as the cheapest way to go, but that's just

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1 one of the factors we will look at as part of the
2 environmental impact statement.

3 MR. CAMERON: Okay. Thank you, Jennifer.
4 Yes, ma'am.

5 MS. KELLY: My name is Mary Kelly. I'm
6 curious about the plutonium oxide. It's my
7 understanding that you are taking the weapons SRS and
8 taking the heads off of the weapons, but in that form,
9 that is not plutonium oxide powder. Is that done in
10 a separate facility or where is the transformation of
11 the plutonium into powder and plutonium oxide taking
12 place?

13 MR. CAMERON: Thank you, Mary. Is this a
14 question for Jennifer or Tim? All right. This is Tim
15 Johnson from NRC staff.

16 MR. JOHNSON: The plutonium in weapons is
17 a plutonium metal and it will be brought to the
18 Savannah River Site, and under DOE auspices they will
19 convert that from metal -- a metal form into an oxide
20 form. This will be done prior to sending it to the
21 mixed oxide fuel fabrication facility, but it will be
22 a separate facility and it will be operated by the
23 Department of Energy.

1 M S . K E L L Y :

2 And you'll have to have a separate EIS and all
3 for that?

4 MR. JOHNSON: I really don't know what
5 DOE's plans are as far as the rest of those
6 facilities.

7 MR. CAMERON: Okay. Thank you. Did you
8 want to ask a question? Okay.

9 MR. MONIAK: My name is Don Moniak. The
10 answer to Mary Olson's question was yes on number one,
11 there is more plutonium in spent MOX fuel than in LEV
12 fuel. That's just, you know, a yes, an easy yes. I
13 have a question about transportation, and I hope
14 somebody can answer this because it's basic physics.
15 It is documented that says that the transport index
16 for the MOX fresh fuel assemblies will be 100 and the
17 KEFF value will be 0.95. So could somebody explain to
18 me the definition of transport index, number one; two,
19 what is the range of values for transport index; and
20 three, how many times -- how often are assemblies with
21 a transport index of 100 shipped to this country?

22 MR. CAMERON: Do we have anybody from the
23 NRC who can answer either all or part of that
24 question?

25 MR. MONIAK: I'd hope so.

1 MR. CAMERON: Tim Harris.

2 M R . H A R R I S :

3 I can answer some of those, Don. Transportation
4 index has to do with the dose rate at one meter, I
5 believe is how you cope with the transportation index.
6 That's completely different from the KEFF of .95.
7 KEFF of .95 is a pretty common safety and that value
8 is a common value used to maintain safety.

9 MR. MONIAK: What's the KEFF of a fairly
10 new facility?

11 MR. HARRIS: Fairly new?

12 MR. MONIAK: Yes.

13 MR. HARRIS: I don't know. The other
14 question was I'm not sure how many packages with the
15 TI-100 are shipped. I don't have that information.
16 Was there something else that --

17 M R . M O N I A K :

18 Is a transport index of 100 high? Is that a
19 high value, and is a KEFF value of .95 high relative
20 to other types of fuel?

21 MR. HARRIS: The KEFF is not high, and I
22 don't believe that the transport index of 100 is
23 particularly high.

24 MR. CAMERON: Okay. Let's go to Natalia.
25 We have time for maybe just a couple of questions

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1 here, and Natalia, if you could just give us your name
2 for the record.

3 MS. MIRONVA: I am Natalia Mironva. I am
4 from Russia, the (indiscernible) region. We have the
5 same kind of proceeding and the same kind of proposal,
6 and my question to Americans, to NRC, MOX proposal is
7 under the clause that American Russian agreement about
8 (indiscernible) weapons grade plutonium, and I would
9 like to understand did you very clear to make the
10 scope after the decision about putting plutonium in
11 MOX with DOE, yet, and this is my question. I am very
12 worried about the (indiscernible) -- general Russia
13 and also I have some small question, how much are
14 built, how long this plutonium will -- (indiscernible)
15 on this project?

16 MR. CAMERON: First question? Do we need
17 a clarification? On the second question, did anybody
18 from the NRC pick up on that? Okay. Jennifer, do you
19 want to --

20 MS. DAVIS: I think I can answer the first
21 question was that has the Department of Energy already
22 made this decision and if they've made this decision
23 then why are we doing this. And basically they have
24 made the decision for the need to put some of the
25 surplus weapons plutonium into mixed oxide fuel, but

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1 if we do not license the facility then that's
2 something we're going to have to consider as part of
3 our no action alternative, but if we don't license the
4 facility then they're not going to be able to produce
5 the MOX fuel that way.

6 MR. CAMERON: Okay. And Natalia, I'll
7 talk to you and make sure what your question was and
8 then we'll get an answer. We really need to close up
9 here pretty soon, and I would ask if anybody who's
10 standing in the back, if you'd like to come into the
11 room, we don't have a chair, but there are seats right
12 up here so come on in and, you know, sit down. There
13 are seats available and while you're doing that let's
14 go to this gentleman.

15 MR. JONES: Thank you. My name is Michael
16 Jones. I just want to clarify something. If -- is
17 the scope of this meeting and the ultimate
18 environmental impact statement covering just the
19 Savannah River project, or can I assume that it's also
20 including the irradiation that will take place at
21 McGuire and Catawba?

22 MR. CAMERON: Good question, and Jennifer,
23 do you want to address that for us?

24 MS. DAVIS: This environmental impact
25 statement is for construction and operation of the MOX

1 fuel fabrication facility. If we address reactor use
2 impacts it's going to be as an indirect effect during
3 the lifetime of the MOX fuel. We may not address it
4 in this environmental impact statement. That's one of
5 the things we're going to determine in scoping. Later
6 on when we receive a license application or a license
7 amendment application for use of MOX fuel in reactors
8 some environmental assessment will be done for that
9 action. I don't know at this point in time if that
10 will be EA, an environmental assessment, or a full
11 blown environmental impact statement.

12 MR. CAMERON: Okay. Thanks, Jennifer.
13 Let me ask the NRC staff if people have questions that
14 they need to get answered before the scoping comments
15 are due, if they E-mail those questions to Tim we
16 would try to answer them? Okay. Because I apologize
17 for the fact that we have to move on, but if you do
18 have a question, if you could E-mail it to
19 teh@nrc.gov, we'll get back to you with that
20 information. We're going to move to the second part
21 of this evening's meeting which is to hear comments
22 from all of you on information on environmental
23 impacts, recommendations, whatever, and as I
24 mentioned, we're going to be doing approximately four
25 minutes here and we're going to be moving through

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1 this, and we look forward to your comments, and what
2 I'd like to do is start with Catherine Mitchell, and
3 Catherine, you can -- yeah, go ahead.

4 MS. MITCHELL: My name is Catherine
5 Mitchell and I'm with the Charlotte Office of the Blue
6 Ridge Environmental Defense League, and I do want to
7 say thank you to the Nuclear Regulatory Commission for
8 being here tonight. We've been asking for a while for
9 this meeting and we -- as much as we might complain
10 and ask questions and get a little upset sometimes, we
11 are grateful that you're here tonight. I would also
12 like to ask for your assurance that the concerns that
13 are voiced here tonight will be heard and adequately
14 addressed in the environmental impact statement in the
15 development of that statement, and I'll begin by
16 asking this because I'm puzzled by your agency's
17 response to a reporter's question appearing in a May
18 6 Charlotte Observer article. In this story your
19 spokesperson stated that the agency had not analyzed
20 the MOX plan in detail. Yet this person was willing
21 to make a statement about the probable safety of this
22 program based on the use of this fuel in Europe. The
23 plutonium fuel use in Europe I'd like to point out is
24 substantially different than the program being
25 proposed in this country. Plutonium fuel in Europe is

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1 made from high level nuclear waste from nuclear
2 reactors. This particular program proposed by the
3 Department of Energy is planning on using plutonium
4 from dismantled weapons and it contains a completely
5 different mix of isotopes and it should not be used at
6 all in safety and performance analysis. That's a
7 major concern I have.

8 In addition, COGEMA of France, a member of
9 a consortium involved in this project, has provided no
10 data on their safety record in France, they don't have
11 to in that country, and there's been no detailed
12 analysis -- there has been no detailed analysis of
13 this program, proposed program here in the United
14 States. So how is it possible to accurately portray
15 this program as safe at this point in time to the
16 American public when that hasn't been done? The
17 purpose of the environmental impact evaluation is to
18 determine what is safe and what is not, and I would
19 submit that it really is impossible at this point to
20 say that it's safe and I -- we have heard that over
21 and over in the course of the development of this
22 program and I would like for everyone tonight to be
23 very clear on that fact. And I would like to say that
24 while the people of Charlotte are here listening and

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1 while you're on the record because I think it's a very
2 important point.

3 With that in mind I'd like to point out
4 just a few of the concerns I have regarding the
5 implementation of this program. One thing in
6 particular I'm having to do, I'm having to cut this
7 because I had a six-page statement that I've cut down
8 to four minutes. The dual track approach to the
9 disposal of this program recommended by the National
10 Academy of Science has shown in favor of one approach
11 and that is MOX. Immobilization as an option has been
12 cut from the DOE's budget for this year, as well as
13 \$150 million in cleanup for the Savannah River site
14 despite massive contamination both on and off site at
15 Savannah River Site. The MOX program received
16 additional funding and the weapons research end of
17 that program received a whopping \$231 million while
18 cleanup at SRS was cut. My question is do these
19 actions now void the recommendations of the National
20 Academy of Science in the framework of the program,
21 and in addition, does the withdrawal of Virginia Power
22 from the consortium at the last minute void the
23 contract awarded to the consortium when that contract
24 was based on participation initially of both Duke
25 Energy and Virginia Power.

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2 I would also like to point out that the
3 proposal using a generic environmental impact
4 statement is unacceptable. The environmental impact
5 evaluation of plutonium fuel use must be specific to
6 these four reactors, safe to use as fuel. Any generic
7 evaluation of nuclear power reactors simply wouldn't
8 provide enough data to allow assessment of the risks
9 associated with plutonium fuels and that's a very
10 important distinction.

11 I would like to say that the other
12 concerns I have -- I don't know how much time I have,
13 but I'm going to keep going until they stop me --
14 reactor safety. The four Duke reactors chosen for
15 this program are quite simply the weakest design in
16 the industry. In a study conducted by (indiscernible)
17 National Laboratories and commissioned by your own
18 agency, this was pointed out. These reactors were
19 found to pose greater likelihood for accident than
20 other types of reactors currently in use in this
21 country, and my question is why were these reactors
22 chosen if that is the case. Was it because Duke
23 Energy was the only utility left willing to assume the
24 risk? Should the people of Charlotte and the Savannah

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1 River Site area be willing to assume the risk based on
2 that reason?

3 Also, evacuation of the Lake Norman area
4 in particular would be practically impossible in the
5 event of an accident. I speak from experience. I
6 have family in that area. I've been on and off those
7 exits many times and I can tell you for a fact that it
8 doesn't require a major accident to cause gridlock in
9 that area. It's gridlocked now. At just about --
10 certainly at any amount of rush hour time, but very
11 definitely throughout the day there is always traffic
12 trying to get on and off the 77 exits all along the
13 corridor around the Lake Norman area. As late as last
14 week an emergency management official from Iredell
15 County pointed out that one area in particular around
16 the Lake Norman reactor was -- is already at risk in
17 that area for safe evaluation and services, but he
18 stated that it would take approximately eight to 24
19 hours now to evacuate that area around the Lake Norman
20 area because they simply couldn't get in and out of
21 the area fast enough. And I ask you is it fair to ask
22 the people of that region to assume the greater risk
23 involved in plutonium use.

24 MR. CAMERON: Thank you, Catherine.

25 MS. MITCHELL: Thank you.

1 MR. CAMERON: Those of you who brought a
2 prepared text with you, we would add that on to the
3 transcript if you could get us a copy, okay, and next
4 we're going to go to Lou Zeller.

5 UNIDENTIFIED SPEAKER: Are you working off
6 the list that we signed when we came in?

7 MR. CAMERON: Yes.

8 MR. ZELLER: Thank you. My name is Lou
9 Zeller. I'm on the staff of Blue Ridge Environmental
10 Defense League and I appreciate the opportunity to
11 speak before the people of Charlotte tonight and the
12 Nuclear Regulatory Commission.

13 The planned use of mixed oxide plutonium
14 fuel is unsafe, uneconomical and unnecessary. We
15 oppose the use of such fuel in commercial power
16 reactors for the following reasons: Plutonium fuel
17 derived from dismantled weapons is an experimental
18 program which cannot be compared to a European
19 experience with plutonium fuel made from nuclear
20 waste. The mix of isotopes includes 64 percent higher
21 concentration of plutonium 239, the heart of a nuclear
22 weapon. The same hazards in nuclear plants are
23 combination of human and technical errors, both types
24 of error are noted in Nuclear Regulatory Commission's
25 own plant performance reviews of the McGuire and

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1 Catawba reactors. Some of this information is
2 included in my written remarks. Because of the
3 inherent hazards in these plants the Nuclear
4 Regulatory Commission should not allow use of
5 plutonium in these plants.

6 Catawba and McGuire operated by Duke have
7 radiation containment building which depends on blocks
8 of ice to reduce the heat and pressure in case of a
9 reactor accident. It's a Westinghouse designed plant,
10 a small containment building. It would indeed save
11 money and that's they have told me three utilities
12 that's using one, Michigan, TVA, and Duke Power. They
13 have formed an ice condenser mini group to help to
14 deal with some of the problems which have been
15 identified in these particular reactors.

16 Duke's system has inherent weaknesses
17 which have resulted in safety problems and lengthy
18 closures of other utility reactors using the same
19 system, for example, D.C. Cook in Michigan. Part of
20 the energy selection of Duke COGEMA, Stone & Webster
21 in the planned utilization of Duke Power reactors has
22 not been open to full scrutiny. The experimental
23 nature of the weapons-derived fuel project requires a
24 thorough and independent assessment by the Nuclear
25 Regulatory Commission. Additional information from

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1 DOE and DCS is required to fully assess the safety of
2 this program.

3 And finally, the use of -- or furthermore,
4 the use of plutonium fuel in commercial reactors is a
5 break in the two decades of American Non-proliferation
6 Policy. It opens the door for other nations to
7 exploit for the purpose of plutonium weapons
8 production. We may here in the southeast be opening
9 a Pandora's box for a 21st century nuclear arms race.

10 I want to include in my remaining time
11 some information, further information for the people
12 of Charlotte and for the Nuclear Regulatory Commission
13 about these reactors, Catawba and McGuire. I have
14 mentioned some of the problems which have been
15 happening. There has been violations involving the
16 company's failure, Duke Power's failure to ensure that
17 ice condenser inlet doors on the McGuire reactor would
18 be able to open if needed and a failure to perform
19 adequate corrective action based on industry
20 experience and operational events at McGuire. This is
21 a Nuclear Regulatory Commission Office of Public
22 Affairs document from 1997. A Catawba plant
23 performance review in March of 1999 noted that Unit 1
24 experienced a forced outage approximately three weeks

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1 in duration due to blocked flow channel in portions of
2 the ice condenser.

3 Have these problems been cleared up?
4 There have been meetings with the Nuclear Regulatory
5 Commission and Duke Power over the years. Have things
6 changed? Let's see. December of 2000 in this NRC
7 performance summary it lists technical specifications
8 and regulatory guide, it's for failing to have
9 adequate procedures to control release of radioactive
10 material during pressurizer gas vent venting
11 evolution. That's in Catawba 2. At McGuire, McGuire
12 1, inadequate corrective actions for recurring
13 problems with shutdown operations involving loss of
14 letdown or inadvertent reactor cooling system to cool
15 down transients.

16 The problems with ice condensers, the
17 problems with these reactors have gone on for years.
18 They are the last place in the world we should try a
19 risky project such as this. The Nuclear Regulatory
20 Commission should open the doors to full public
21 scrutiny, ask the people of Charlotte is this what you
22 want for the Queen City.

23 MR. CAMERON: Thank you. Thank you, Lou.
24 We're next going to go to Carolyn McDaniel and then

1 we're going to go to Mike Tuckman. Carolyn. Do you
2 want to come up to the podium? All right.

3 MS. McDANIEL: My name is Carolyn
4 McDaniel. I have lived in the Charlotte area since
5 1963. Then I moved to York County in 1978 and I have
6 lived within a ten-mile radius of Catawba Nuclear
7 Station for that time. I feel like of this area I
8 remember when Duke Power came in it was just a
9 neighborhood utility. Now it is a global energy
10 provider that all of us know did not get to be where
11 they are today without extraordinary safety and
12 environmental concerns.

13 As I say, I live near the Catawba Nuclear
14 Station. I am very confident that Duke Power
15 Company's involvement -- Duke Energy's involvement in
16 this experimental or this development of this fuel
17 will be carefully and very astutely considered before
18 they would even consider doing this. I am fully
19 confident that they will do that.

20 I think all of us in this area are
21 fortunate to live in this area and to have a company
22 such as Duke with their integrity and we all know,
23 everyone here knows that Duke Power Company is a
24 company of great integrity and have opened their doors
25 to other nations. They have shared their technology.

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1 They have been leaders in the nuclear safety and we
2 know that right now we do need nuclear power to
3 produce energy. I am confident, as I say, that Duke
4 Power Company will continue to be the leader in safety
5 and environmental issues of this new project. Thank
6 you.

7 MR. CAMERON: Thank you, Carolyn. Could
8 we have Mike Tuckman come up, please.

9 MR. TUCKMAN: Good evening. My name is
10 Mike Tuckman. I'm executive vice-president for Duke
11 Power. I'm the senior executive responsible for the
12 operation of Duke's nuclear reactors. As many of you
13 know, 50 percent of all electricity consumed by Duke
14 Power customers is produced by nuclear power. We have
15 demonstrated that nuclear can be very safe, very
16 environmentally clean, it can be very reliable and
17 it's very cost competitive.

18 The use of MOX fuel is not new in the
19 world. It is being used in Europe, for the last
20 several decades many French and other European
21 clients, clients that are very similar to ours. It's
22 not new, it's not experimental. I've personally been
23 to France and looked at the MOX fuel fabrication
24 facilities, as well as talked to the reactor
25 operators, and fully believe that we can operate our

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1 plants using their technology. The French are part of
2 the team who are working -- who are sharing very
3 openly their technology, their knowledge and their
4 history.

5 Some here have voiced and many others
6 think there's a difference between weapons-grade
7 plutonium and reactor-grade plutonium. We've looked
8 at it. We've studied it. There are slight
9 differences, but the way the plant actually operates
10 is no different. It is the same sort of operation.
11 We believe that this is not a research and
12 experimental program. It's a program that can be done
13 and done very safely.

14 I'm also aware that many in this room
15 might think that the use of MOX fuel at our facility
16 will decrease safety or shorten the life of our
17 reactors. I can tell you that is absolutely not the
18 case. We will not allow that to occur. I want to
19 personally assure this community that our goal and our
20 aims at Duke Power is to try to operate these plants
21 safely. I have absolutely no motivation to not
22 operate these plants safely. We have obligations to
23 our neighbors of which we are them. My only child, my
24 daughter-in-law and my grandchildren live close to
25 Catawba. I have every reason to want to keep that

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1 plant operating and operating safely. The 4400
2 employees of nuclear generation understand that having
3 a safe plant is an absolute condition, it is a
4 requirement if you and your neighbors allow us to
5 operate our plant. You have given us your trust and
6 we will not abuse that.

7 We're not going to use a product, MOX
8 fuel, that would cause us to have worries about
9 investment in our nuclear power plants. Some would
10 believe that the only reason we're doing this is
11 corporate greed. Let me assure you, nothing is
12 further from the case. What we're trying to do is do
13 something that's useful, that will help non-
14 proliferation of the world. That's our aim. Nuclear
15 generation in our company is the lowest cost
16 generation. Fuel cost is a very small fraction of
17 what that total cost is. This will not have an
18 economic impact one way or the other relative to the
19 use of nuclear generation.

20 More importantly, we have families, like
21 I say, that live and work here too. We have a strong
22 need for nuclear safety. The proceedings tonight are
23 related to the licensing and manufacturing plant that
24 will be built 150 miles from here on a Department of
25 Energy site between South Carolina and Georgia. The

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1 earliest we will receive any fuel here will be 2007.
2 Well before that, before we do anything at all, a
3 separate branch of the NRC, as Bob Martin has
4 described, will thoroughly examine and look at our
5 license applications and our technical work for the
6 opportunity for the public to examine that technical
7 work that we do, with an opportunity for the public to
8 have comment relative to the environmental impacts of
9 the use of MOX fuel in this area. If we do not feel
10 comfortable with Duke Power submitting that
11 application we will not submit it. We have to feel
12 very comfortable that what we're doing is safe for our
13 plant, for our neighbors, for our reputation. Only
14 then will the Nuclear Regulatory Commission get it and
15 then they will have the opportunity to review it.
16 Absolutely nothing will take place until we're all
17 very satisfied.

18 We urge that this licensing action that
19 you're presently considering, that is, the MOX fuel
20 fabrication facility stay focused on that particular
21 aspect. The other, as I mentioned, will have an
22 opportunity later on, and you should note the impacts
23 of the MOX fuel on the level of the community in and
24 around the Savannah River area. We also make a
25 request that as part of your review you use the

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1 considerable work done by the Department of Energy in
2 the environmental impact statement. Theirs is a very
3 thorough document.

4 Once all the testing is complete and we
5 receive the confidence to submit a license and the NRC
6 has confidence to approve that license, only then will
7 we use MOX fuel in our plants. Years ago when we
8 first became involved in this we thought we had the
9 capability to perform this work for the Department of
10 Energy, for the government. We still believe that --

11 MR. CAMERON: Can I ask you to just sum
12 up?

13 MR. TUCKMAN: Yes, sir. It's important to
14 remember one point. The purpose of this project is to
15 reduce the inventory of the world's weapons-grade
16 plutonium, and that's what we're trying to do and do
17 it effectively, produce electricity in combination and
18 help make the world a safer, better place to live.
19 Thank you very much.

20 MR. CAMERON: Okay. Thank you, Mike.
21 Janet. Janet Zeller.

22 MS. ZELLER: My name is Janet Zeller. I'm
23 executive director of the Blue Ridge Environmental
24 Defense League. We were organized in the mountains 17
25 years ago and now have chapters across North Carolina

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1 into South Carolina, Tennessee and Virginia and we
2 have two chapters here in Mecklenburg County, and I'm
3 speaking on behalf of both our members here and all
4 those people who live along the transport routes and
5 who would be affected also in the adjacent area.

6 First, I want to state that the Department
7 of Energy did not do an adequate job of evaluating
8 whether this program is needed or not, and since DOE
9 abrogated its responsibility I call on the U.S.
10 Nuclear Regulatory Commission to evaluate whether or
11 not this project has implications far beyond the 34
12 tons of surplus plutonium that is supposed to be
13 addressed by the creation of a multi-billion dollar
14 fuel fabrication plant at Savannah River Site. It's
15 simply absurd to assume that taxpayers are supposed to
16 pay a multi-billion dollar price tag for a fuel
17 factory and have only 34 tons of plutonium converted
18 into fuel for reactor use. So the entire impact on
19 creating this fuel factory, especially on the
20 southeast, needs to be addressed in the scoping
21 documents.

22 In addition, I want to point out that last
23 year in their application for expansion of their fuel
24 pool then Carolina Power & Light, now Progress, added
25 a big addenda to their fuel pool application which was

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1 for plutonium fuel -- irradiated plutonium fuel waste,
2 and so that little study done by a consultant is
3 certainly not an adequate evaluation and the NRC needs
4 to eliminate -- as we asked then and got no reply,
5 eliminate that from the application as their decision-
6 making at Sharon Harris.

7 What's going to happen is that this
8 monster that has to be fed is going to put weapons-
9 grade plutonium on our roads. It's going to put the
10 fuel that actually is a terrorist target on the routes
11 throughout the southeast and NRC must evaluate those
12 impacts. Even the Department of Energy has admitted
13 that operation of nuclear power plants with plutonium
14 fuel rather than uranium oxide increases the deaths in
15 certain accident scenarios. One accident scenario had
16 eight percent more deaths from use of plutonium fuels
17 rather than uranium. Another has 14 percent, and so
18 what kind of risk is acceptable to the people of
19 McGuire and Catawba when even the Department of Energy
20 which routinely underestimates the risk of ionizing
21 radiation has admitted that it's more dangerous.

22 And exactly what kind of risks are we
23 talking about? Cancer is routinely looked at by
24 federal agencies when ionizing radiation impacts are
25 evaluated for health results, and yet ionizing

1 radiation not only causes cancer, which it does in
2 several organs in the body, but it also causes immune
3 deficiencies. It also causes genetic damage, and so
4 the Nuclear Regulatory Commission needs to look at the
5 non-cancer risk for this dangerous proposal.

6 This last week Congressman Lindsey Graham
7 introduced a bill in the U.S. House of
8 Representatives, the number is HR-1679, and one of the
9 things that this bill will do is re-authorize the
10 Price-Anderson Act, and the Price-Anderson Act limits
11 the liability and limits the maximum assessments for
12 nuclear accidents or, as they call it here, nuclear
13 incidents, and the limits are just -- you know, the
14 limits are spelled out right here in the existing law
15 and then also in this new bill that would also limit
16 the liability and limit the damage that could be
17 recovered by people who are hurt or environmentally
18 damaged from the use of plutonium fuels. The whole
19 statute in this bill on plutonium fuel, and what
20 they've done is say that the maximum assessment for an
21 incident for the licensee is going to be \$20 million.
22 Well, a few years back (indiscernible) did a study of
23 a high level nuclear accident involving high level
24 nuclear waste and his assessment was that cleanup cost
25 could be for that one accident \$4 billion. So who's

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1 going to actually pay the price? Well, it's spelled
2 out right here. It's going to be the United States
3 taxpayers. There's indemnification. In this
4 indemnification everything above \$20 million is going
5 to be paid by the U.S. taxpayers up to a total cost of
6 -- amount of \$10 billion, and so we're not protected
7 certainly from this dangerous proposal. And so what
8 I'm doing tonight is asking the Nuclear Regulatory
9 Commission to put a license condition on this
10 plutonium fuel project that plutonium fuel cannot be
11 covered by the Price-Anderson Act. If Duke is going
12 to do something that is more dangerous admitted by the
13 Department of Energy then it should not have the right
14 to be covered by taxpayer indemnification and
15 liability limit. Thank you very much.

16 MR. CAMERON: Thank you, Janet. How about
17 Dennis Cameron.

18 MR. D. CAMERON: And we've never met
19 before.

20 MR. CAMERON: That's true.

21 MR. D. CAMERON: I'm Dennis Cameron. I'm
22 with the North Carolina Municipal Power Agency which
23 is a co-owner of the Catawba Nuclear Station. I'm
24 manager of the North Carolina Municipal Power Agency.

1 We own 75 percent of Catawba Unit 2. I'm here as an
2 individual tonight.

3 I have lived in Clover, South Carolina,
4 approximately 13 miles from the Catawba Nuclear
5 Station for the past 20 years. Prior to that I was
6 born and raised approximately 30 miles from Savannah
7 River Site, and the economic impact of the Savannah
8 River Site on my area had tremendous economic benefits
9 to my family, my friends and neighbors from the work
10 done there, and I can say from that that if it was not
11 for the economic impact I would not have had the
12 opportunity to attend college and to further my
13 education. Also, my friends and family and neighbors
14 would not have enjoyed the standard of living that
15 they have enjoyed over the years as a result of the
16 Savannah River Site projects conducted there. As well
17 as nuclear power throughout South Carolina we know the
18 importance of nuclear power throughout the world and
19 the importance it plays in the supply of electrical
20 energy to us each and every day.

21 The MOX fabrication project is one that
22 will take plutonium and use it in a peaceful practice
23 rendering the plutonium no longer useful for weapons
24 and mass destruction. The fabrication and use of MOX
25 fuel is not a new technology. It's one that is proven

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1 and has been successfully used in Europe over the past
2 years. I encourage you, NRC, to consider the success
3 of the program in Europe, also the MOX program is a
4 positive step forward in material that was meant for
5 destruction and using it for peaceful means and no
6 longer allow that plutonium to be used in weapons, and
7 also it will provide economic benefits to the
8 Carolinas and the people of the Carolinas.

9 I have -- I believe that although there
10 are other methods of rendering plutonium unusable that
11 the MOX fuel technology is proven, and it's the best
12 option available to us to use in the rendering of
13 plutonium unusable state of weapons and mass
14 destruction. I have full confidence in DCS's ability
15 to carry out the operation and management of the MOX
16 fabrication facility in an appropriate and safe and
17 efficient manner without any danger to the
18 environment. I know personally from the employees at
19 the Catawba and McGuire Station and my neighbors who
20 many of them who are employed by Duke, their one
21 concern and number one priority is the safety and
22 health of the public and the neighbors and to operate
23 those plants in the most safe and efficient manner
24 that they can. Safety is the number one priority and
25 that is put ahead of everything else in the operations

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1 of these -- of the Catawba and McGuire units and I
2 have full confidence in their ability to continue to
3 operate these units even using MOX fuel in the
4 reactors at the unit. Thank you.

5 MR. CAMERON: Thank you, Dennis. We're
6 next going to go to Denise Lee and then to Joe
7 Troutman. Denise.

8 MS. LEE: Good evening. I appreciate the
9 opportunity to be here tonight. My name is Denise
10 Lee. I'm on staff of the Blue Ridge Environmental
11 Defense League. I live in Anson County, North
12 Carolina, and I am afraid I will be on one of the
13 transport routes. I'm here because I'm concerned that
14 the NRC did not include the detailed analysis and an
15 evaluation in the EIS of emergency preparedness along
16 the plutonium transport routes. The DOE simply checks
17 off whether a transport corridor community has an
18 emergency response program without really looking at
19 an assessment of minimum and maximum capability.

20 The NRC EIS should make recommendations
21 for needed training, equipment, and added personnel
22 for first responders. The cost of necessary upgrades
23 must be included. 80 percent of first responders in
24 rural areas are volunteers. The NRC must outline in
25 the EIS the procedures for notifying state governors

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1 about plutonium shipments and states' responsibilities
2 for added security and other measures. In the mid
3 1990s Governor Jim Hunt called for a helicopter
4 accompaniment at the cost of over \$70,000. Medical
5 facilities along transport routes seldom have adequate
6 radiation wards for accident victims. The EIS must
7 include the complete assessment of medical
8 preparedness on the transport routes.

9 I want to bring this a little bit closer
10 to home. I want to bring it to my home. I want to
11 tell you that in my community, in my county our
12 emergency people are all volunteers. These are people
13 that work full-time jobs. When there is an emergency,
14 when there is a fire these people are called off their
15 jobs. When they have to go and work their jobs
16 they're already tired, but they have to go and respond
17 to emergencies. Where does the equipment come for
18 these facilities? They come from people getting
19 together and holding barbecues, going door to door and
20 begging for money. How in the world does the NRC
21 expect the community fire departments and rescue
22 squads to be able to have the equipment to be able to
23 respond to an accident of this magnitude? They can't.
24 How many of these people, how many of the NRC people
25 would want to have to respond to a radioactive

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1 accident in a HAZMAT uniform? How many of the NRC
2 people have gone along the transport routes, sat down
3 with these volunteers and asked them what they needed?
4 How many of the NRC people have actually informed them
5 of the dangers of such an accident? I am inviting
6 them to come to my community, come to my county, sit
7 down and see what kind of response you get. Let them
8 tell you what it's going to take to make us prepared.

9 If there's an accident, where are you
10 going to take them? Are you going to take them to our
11 hospital, contaminate our hospital? And then what are
12 we going to do with the people that get sick in our
13 county and we can't take anybody to our hospital
14 because it's contaminated? You need to go back to the
15 board and look at what you're proposing. Duke Power
16 is doing this for greed and don't let them fool
17 anybody. This is all about money. Thank you.

18 MR. CAMERON: We're going to go to Joe
19 Troutman and then to Don Moniak. Joe.

20 MR. TROUTMAN: Good evening. My name is
21 Joe Cornelius Troutman, Junior, and the good folks
22 that are from around here may figure out that I am a
23 local boy and my family is from around here and has
24 been for a few years. I have every confidence in Duke
25 and that they can operate the Catawba and McGuire

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1 stations safely and efficiently, and I know that Duke
2 would not be considering using MOX in their facilities
3 if they had any doubt that any possibility of
4 jeopardizing the public and their investment in their
5 reactors. They feel comfortable they can do this or
6 they won't do it. There's too much money involved in
7 those Duke facilities. They're not going to
8 jeopardize their facilities.

9 The surplus plutonium is real. It's
10 there. We've got to deal with it. This option is the
11 best option available. It's the only option that
12 destroys the plutonium. It burns it up in the
13 reactor. I have not heard any claims or any problems
14 with using MOX fuel that to me are legitimate to say
15 that this fuel is not for use, and I have every
16 confidence that the NRC is going to review everyone's
17 concerns here and that they're going to take these
18 into consideration, but I believe that the MOX fuel
19 ultimately will be approved and it will be used safely
20 and efficiently in these reactors. Thank you.

21 MR. CAMERON: Thank you, Joe. We're going
22 to hear from Don Moniak next and then Connie
23 Kolpitcke. Don.

24 MR. MONIAK: Hello. My name is Don Moniak.
25 I work with the Blue Ridge Environmental Defense

1 League, and I'd like to say this process is already
2 unsafe even though they have it fabricated into fuel
3 because safety is not a -- you don't base your safety
4 around how many accidents you have. I'm driving down
5 the road and I'm violating the speed limit. Am I safe
6 because I didn't get caught? NRC would like you to
7 think so because that's their way they present their
8 politics. I run a red light and I get caught and then
9 I get caught speeding. I go to my insurance agent and
10 say, hey, you know, I didn't have a collision, nobody
11 died, I haven't been convicted of manslaughter yet,
12 I'm safe, it's just me speeding. I just violated a
13 few rules, please don't raise my insurance rates. Yet
14 we routinely hear from the nuclear industry and other
15 industries as well, but I find the nuclear industry to
16 be more guilty of this habit, they define safety by
17 what they didn't do, not by what they did. They
18 didn't have an accident, they didn't kill anybody,
19 they didn't contaminate the environment.

20 Yes, Duke Power does not want to damage
21 their facility and investment, that's a given, but
22 Union Carbide didn't want to damage their facility in
23 Bopal. They didn't want to kill, three, 4,000 in an
24 accident. It wasn't an accident, it was murder. It's
25 that simple. Corporations are largely driven not by

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1 safety concerns but by equipment concerns, investment
2 concerns. They only keep radiation down because
3 radiation doesn't only harm people, it harms
4 equipment. One of the big issues in the nuclear
5 weapons stockpile this day is the irradiation of small
6 parts, and nuclear weapons are full of small parts.
7 Plutonium is just a trace.

8 This is an actuator, electro-explosive
9 device that was taken apart at the (indiscernible)
10 nuclear weapons plant. It's from W44 or W45 weapon
11 that was used to set off a chain of events. It's just
12 as important to that weapon working reliably as the
13 weapons designers state as a pit. A pit is a trigger.
14 I give you a trigger to a gun, it doesn't mean you can
15 shoot somebody.

16 Duke Power has shown that they do not
17 understand plutonium if they claim to be stating the
18 truth today. Weapons grade plutonium is vastly
19 different. That's why they use weapons-grade
20 plutonium instead of reactor plutonium in weapons in
21 stockpiles. However, all plutonium can be used in
22 weapons. That is a fact. If you want to argue with
23 that I suggest you argue with Edward Teller, father of
24 the hydrogen bomb, who six years ago said the greater
25 proliferation threat in this country is the tens of

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1 tons of plutonium and irradiated fuel that no longer
2 meets the spent fuel standard. Now, I'd like to see
3 you go toe to toe with Edward and tell him that, oh,
4 you can't make a bomb out of reactor grade plutonium.
5 I'd like to see that. That would be very comical.

6 There's a parallel process going on here.
7 It's also not safe because how could it be that the
8 agency that's responsible for ensuring safety cannot
9 answer basic yes and no questions? How much plutonium
10 is in MOX fuel? It took two tries. That shows that
11 there's a disconnect. This is a system. This is not
12 a fuel plant that gets licensed and then a reactor
13 gets evaluated later. This is a system because this
14 is a contract, and the fact is is Virginia Power is
15 still on the name of that contract. There's been no
16 amendment. If I am wrong about that let me be
17 corrected now, but they sent me all of the amendments
18 and Virginia Power is still on that contract. The NRC
19 has to evaluate Virginia Power at this point in time.
20 Virginia Power may have stated they're not interested,
21 but they're named in the contract.

22 I'd like to touch on some transportation
23 issues.

24 MR. CAMERON: And Don, could you just sum
25 up for us?

1 MR. MONIAK: Yes. Yes. I know you gave
2 Duke Power five minutes, 20 seconds so --

3 MR. CAMERON: You're going over five
4 minutes and 20 seconds, though, that's why I --

5 MR. MONIAK: Please. Because the Nuclear
6 Regulatory Commission -- we would have more time
7 tonight if you were capable of answering the yes or no
8 questions with a yes or no.

9 MR. CAMERON: Don, Don --

10 MR. MONIAK: They're simply, basic physics
11 that you are supposed to know off the top of your head
12 because you're the experts. Well, because you're the
13 experts, we can't ask questions at NRC meetings yet
14 the NRC at meetings do not answer questions.

15 MR. CAMERON: Don, you've got 50 seconds,
16 okay?

17 M R . M O N I A K :
18 Okay.

19 MR. CAMERON: Thank you.

20 M R . M O N I A K :
21 Thank you. The NRC at their public meetings
22 can't answer technical questions that are simple in
23 their nature. There's going to be more plutonium
24 burned in Catawba than what they said a year ago,
25 three times almost even though Department of Energy is

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1 going to irradiate less plutonium in the whole program
2 because Virginia Power allegedly dropped out. There's
3 going to be more shipments because the Department of
4 Energy in their evaluation falsely claims in their
5 final EIS -- that EIS is a fraudulent document, it's
6 a work of art. They falsely claim that there will be
7 four fuel assemblies in containment at the same time
8 the Duke COGEMA Stone were already negotiating to
9 build one of three fuel assemblies in containment.

10 MR. CAMERON: Don, thank you. I have to
11 ask you to step down.

12 MR. MONIAK: Please, I'm -- let me just
13 conclude. This is not the process it's supposed to
14 be. The NRC is behaving just like the Department of
15 Energy, and frankly, if they can't answer how much
16 plutonium is in MOX fuel which is right in their own
17 documents every day then they should not be trusted
18 with this environmental impact statement. Thank you.

19 MR. CAMERON: All right. Is Connie
20 Kolpitcke still here? And I apologize for
21 mispronouncing your name.

22 MS. KOLPITCKE: The last name you
23 pronounced right. It's my first name, it's Constance.

24 MR. CAMERON: Okay.

1 MS. KOLPITCKE: Thank you. Thanks to the
2 NRC for giving us this opportunity. I don't have a
3 formal speech. I just have a few quick notes and
4 points to make that I'm a Cornelius resident who lives
5 just a few blocks from malfunction junction, otherwise
6 known as Exit 28, and I would hate to think that an
7 accident would cause an evacuation. It would be a
8 nightmare on the exits to Interstate 77 around Lake
9 Norman. It would just be horrendous.

10 Although I am sure that the employees at
11 nuclear power plants around the country feel confident
12 in their own safety and that everything is being done
13 that can be done to protect them, I imagine that
14 similar employees at power plants that have had
15 accidents such as Three Mile Island felt that way. I
16 think that if the NRC is going to proceed with looking
17 at the licensing of the Savannah River Site and having
18 the fuel go to McGuire and Catawba that every possible
19 test should be run to make sure that the highest
20 standards that would prevent any possible accident
21 that might be too expensive, perhaps the other
22 alternative would be to use immobilization of the
23 weapons grade plutonium.

24 Finally, I would like the Department of
25 Energy to consider as part of its mission emphasizing

1 to the public, to the American citizens that we should
2 control our use of energy, we should change our
3 lifestyle. We should adopt zero population growth and
4 we should cut back on our use of power. Why build a
5 three-story home when you can get by with six rooms.

6 MR. CAMERON: Thank you, Constance. We're
7 going to go next to Bonnie Ward and Claude Ward and
8 then I'm going to ask -- we're going to do a little
9 change of pace. We have some guests, some visitors
10 from Russia with us tonight and there are six
11 different groups, but I am going to ask Natalia
12 Mironva as their spokesman to come up and give us a
13 presentation, and first, Natalia, let's see what
14 Bonnie -- Bonnie Ward --

15 MR. WARD: We were originally pulled so
16 that they would have more time so eliminate our names.

17 MR. CAMERON: Okay. Well, Natalia, thank
18 you very much. Natalia, are you ready now? Okay.
19 And we're going to give Natalia, since she does
20 represent six groups and the Wards graciously decided
21 not to talk, Natalia, we'll give you twice the
22 allotment, okay, so go ahead.

23 MS. MIRONVA: Thank you very much. I
24 (indiscernible) and I appreciate this ability to talk
25 to this American group and American officials, this

1 very important information MOX production. First I
2 would like to say I am energy engineer. I am working
3 -- I am from a representative working with nuclear
4 operations more than ten years and we talk of this
5 action with government, we discussed this action
6 involving the same questions. In our Russian team, we
7 are here because we understand political base of MOX
8 fuel proposal, and we talk with American government
9 this question. Our Russian team, we have
10 representative of (indiscernible) and we discussed
11 with Americans our questions. We have nuclear
12 physicists from Krasnoyarsk. Krasnoyarsk is the main
13 nuclear site in Russia, and also we have on our team
14 representative of young generation. She's a student
15 and she will talk about -- she will like to talk and
16 tell you about Russian society position, Russian
17 society.

18 At first, of course, I believe the scope
19 -- the scope pages that are -- this -- part of our
20 agreement with United States and Russia for
21 authorization of weapons and mass destruction, but how
22 you listen from our American colleagues. Most Russian
23 didn't never -- didn't never go on the site plutonium
24 problems. Plutonium will growing -- the mass of
25 plutonium will growing and growing, and we're -- this

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1 cost of this plutonium -- of plutonium, how do you
2 say, began -- this plutonium project through the
3 Russian state structure. We've discussed this -- our
4 nuclear regulatory committee would name worse
5 (indiscernible), and the Russian say that to put
6 plutonium into MOX is similar to like make golden
7 toilets. Of course I understand that he say this --
8 this official I must fear because he discussed this
9 (indiscernible), but his strong position that
10 plutonium is not solution -- MOX is not solution of
11 plutonium problems.

12 Of course, disarmament, which is political
13 coercion, and from my point of view and how I saw all
14 this meeting, MOX is much more plutonium
15 (indiscernible) than technical decision. MOX program
16 from my point of view like engineer is a MOX project
17 is very questionable. Russian nuclear scientists make
18 a lot of investigation in MOX -- in plutonium oxide
19 and the plutonium oxide is very much aggressive in the
20 environment when there is plutonium oxide. This
21 tribune, they have very high level of mitigation for
22 civility, so this is why Russian nuclear scientists
23 tried to look other kind of plutonium construction,
24 for example, (audible) plutonium for something other.
25 It means that plutonium oxide is not in our decision

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1 so from my point of view we need to wait, we need to
2 wait because our scientists don't find their decision.

3 On the same page you can't write, you
4 can't read, the MOX fuel introduced for use in
5 domestic commercial nuclear power plants, and my
6 question was about how many plants will they
7 construct, how many (indiscernible) because I know
8 from Russian experience that (indiscernible) MOX costs
9 \$2 billion for 800 megawatt. From Russian
10 investigation, we can only call a reason if we want to
11 have MOX -- if we want to have plutonium based
12 industry profitable we need to construct more of it
13 between 50 and 70 (indiscernible) breeders. Breeders
14 is very close to meeting the problems, so the most --
15 (indiscernible) how we -- both our nations believe
16 that we can do a MOX nuclear design.

17 So I would like -- I understand, this is
18 very clear, I understand that two parts of society
19 discuss this problem. One part or one group has jobs,
20 and one has money and second part who are afraid about
21 safety, afraid about future. So this is very similar
22 like we have this same kind of discussion in Russia,
23 and I would like to ask Nuclear Regulatory Commission
24 to understand its own role in this difficult
25 (indiscernible) so when discuss about MOX, MOX fuel

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1 fabrication from MOX nuclear reactors. We need to
2 look further and we need to be sure that the public
3 will have technical protection measurement if the
4 incident would happen or something other or all
5 (indiscernible) MOX production will be operated. From
6 Russian experience, from Russian processing plant, we
7 had a huge combination from plutonium process and
8 plutonium (indiscernible). So I think that the
9 problem is much more higher than Duke promised us in
10 this paper. He reports it is cheapest, it is safe --
11 has much safety, it is better. I think it is not a
12 (indiscernible) or Duke is not a (indiscernible) a
13 reality. So I ask you with very clear that we are
14 connect by our plutonium (indiscernible).

15 MR. CAMERON: Thank you. Thank you very
16 much. Natalia, can I just ask you -- thank you for
17 being here. Could you just tell us who your
18 colleagues are there?

19 MS. MIRONVA: First of all I would like to
20 introduce Vitaly Khizhnyak. He is a doctor -- he is
21 a Ph.D, a nuclear physicist. He is a former official
22 on the Nuclear Regulatory Commission in Krasnoyarsk
23 region and now he's a -- vice-president over Non-
24 Proliferation Center in Krasnoyarsk. And Andrei
25 Talevlin. He's fellow (indiscernible). He is also

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1 vice-president of non-government (indiscernible)
2 organization and he initiate and support our group
3 environment against nuclear site MYAK to stop dumping
4 nuclear waste into the environment. So he's hero.
5 And Ekaterine Akhmadeeva. She is a student. She is
6 a vice-president of student environmental and
7 ecological organization. She's -- she participates in
8 public action and she participated in public
9 moratorium over the (indiscernible) contamination of
10 our region.

11 MR. CAMERON: Okay. Thank you. Thank
12 you, Natalia. We're going to go to -- at this point
13 over to Pete Cauley and then we're going to go to Greg
14 -- is it Jocoy?

15 MR. JOCOY: That's close enough.

16 MR. CAMERON: Joe Cauley?

17 M R . J O C O Y :
18 Jocoy actually.

19 MR. CAMERON: You were not going to come
20 up here unless you heard your right name. I don't
21 blame you. Okay. Joe Cauley.

22 MR. CAULEY: My name is Joe Cauley. I'm
23 just an ordinary citizen so I have a view from kind of
24 the outside, and I can see that there's an obvious
25 strategic advantage to taking weapons and turning it

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1 into MOX for peaceable consumption and production of
2 oil energy. When I looked at this proposal I asked
3 myself are the people who are running it reasonable
4 and prudent people. As an outsider it's real hard for
5 me to measure how prudently have they evaluated the
6 transportation questions, how prudently have they
7 measured the risks of running a hotter fuel in these
8 reactors that might not have been designed for, how
9 carefully have they evaluated the potential for
10 accidents. So I don't know that, but here is one
11 thing I can look at to measure how reasonable these
12 are. I note that for 60 years we've had sustained
13 nuclear reactors. I think it was the outside of
14 Chicago that was the first critical -- 60 years we've
15 had nuclear fires and we know that nuclear fires
16 produce nuclear ashes. So I've asked the question of
17 what are we going to do with the ashes? For 60 years
18 we've known this and what has the industry done?
19 They've talked and did their studies and do we have a
20 long-term facility to store nuclear waste in this
21 country? No. We're studying it. Part of the
22 environmental protection statement says there is a
23 geological repository as part of this program. Well,
24 I haven't seen it for a long time, years and years and
25 years. When the nuclear industry showed us that they

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1 have a functioning and long-term facility then I might
2 be willing to believe that these are reasonable,
3 prudent people who knew that they were going to
4 produce waste product and made some provisions for it.
5 Until there is such a facility I'm a skeptic. I say
6 they do have waste products, they haven't made
7 reasonable provisions for it, so until we have such a
8 functioning facility I think the Nuclear Regulatory
9 Commission owes its ordinary citizens to say let's not
10 approve a potentially dangerous new program until
11 they've established some credibility by attacking a
12 known problem that's been there for years and years
13 and which they're still studying, and which I suspect
14 the industry may want to study for another 60 years
15 rather than putting up the money and solve what they
16 know about.

17 MR. CAMERON: We're going to have Mary
18 Kelly come up. Mary.

19 MS. KELLY: Thank you. My name is Mary
20 Kelly and I'm with the League of Women Voters for
21 South Carolina. I appreciate the opportunity to speak
22 at this meeting, and I thank Mr. Cameron for putting
23 me on because I do have to go home to Columbia.

24 My concern is the situation at the
25 Savannah River Site. I've been following nuclear

1 issues in South Carolina since the late '70s and we
2 have -- and I've been at very many of this kind of
3 meeting usually conducted by DOE. We in the league
4 have really taken a big part in trying to educate the
5 public about nuclear power, nuclear waste and all the
6 issues that are attendant upon that.

7 South Carolina is often referred to as the
8 nuclear state because we have such dependence on
9 nuclear power. We've got seven reactors. We've got
10 the Savannah River Site so it's heavily contaminated.
11 We've got to burn low level waste product which has
12 become so contentious. We are greatly concerned that
13 the Savannah River Site has become the collecting
14 point for all the plutonium in the United States.
15 Other sites in the country are being cleaned up at the
16 expense of South Carolina.

17 We are all well enough informed that
18 plutonium is very, very dangerous. If it gets into
19 the environment it's got health effects. If there are
20 critical accidents we could have a major explosion.
21 We're also aware of the dangers posed by the
22 (indiscernible) high level waste tanks that are still
23 being dealt with. Only two have been closed down and
24 they've been the subject of concern for many, many

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1 years. Manufacturing MOX at the site will add to the
2 amount of waste that will be there at least in tanks.

3 We're greatly concerned that the money for
4 the cleanup of this site has been cut off supposedly
5 only for this year. However, it's really indefensible
6 that that has happened because this is a site with
7 major, major contaminations and it needs to be cleaned
8 up. The government needs to keep its promise to
9 people in South Carolina.

10 In the scoping -- in the EIS for which we
11 are holding this scoping meeting, we would like to see
12 a number of things addressed. We want a review of the
13 status of the Savannah River Site included a full and
14 candid review of existing environmental and nuclear
15 waste problems. We want a full and candid review of
16 the status of all the nuclear materials held on site.
17 That should include a summary of all the plutonium and
18 an evaluation of its condition and the dangers
19 inherent and the condition of the plutonium.

20 I am a chemist by education, and it
21 concerns me greatly when I look at some of the things
22 that we are trying to do and that they fail to do at
23 the Savannah River Site. I think they just
24 underestimate some of the problems that are inherently
25 chemical problems. We're always hearing from

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1 engineers, we're hearing from businesses, but if you
2 read more about plutonium you will find out that the
3 chemistry of plutonium is not fully understood. They
4 need to concentrate a lot more on that I would say.

5 We need a discussion of the criticality
6 issues. We should have a series of risk assessment
7 analyses including worst case scenarios. Risk
8 assessment is a good thing. However, you have to
9 select the right scenarios to put into your risk
10 assessment and you can't say we're going to not
11 compare an explosion, say, because this is never going
12 to happen. To have credibility with the risk
13 assessments they've got to be as comprehensive as
14 possible and include worst case analyses.

15 We need to evaluate the danger and
16 condition of the various radioactive wastes being held
17 on site. We need to be told about the impact of the
18 MOX fabricating plant operations, how much waste will
19 be added. The other problem is we all know that there
20 are spent fuel rods at current nuclear reactors with
21 no place to go because we pulled them out and a final
22 waste site has not been fully authorized and, yet we
23 are going to be producing more and different nuclear
24 waste, and there's a big problem with how much heat is
25 given off by any of this.

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1 Those are all factors that have to go into
2 evaluating if that's a use of MOX. There needs to be
3 a full review of transportation and storage issues.
4 Will the tests that we have devised be suitable for
5 the new MOX --

6 MR. CAMERON: Can I ask you to sum up,
7 Mary?

8 MS. KELLY: Well, that pretty much says --
9 that pretty much takes care of what I wanted to say
10 except for the fact that the NRC should hold some
11 meetings in Columbia. The people of South Carolina
12 should be addressed by these -- by people speaking at
13 these kinds of concerns. We have meetings in North
14 Augusta which draws in the cheering section from the
15 people who have jobs, run businesses and so forth, but
16 -- and they have a vested interest because the money
17 is livelihood, is a very good living. We need to have
18 these meetings in Columbia so that the state officials
19 can learn about these things and the media, which is
20 largely based on Columbia, will also give exposure to
21 what we're talking about, and thank you.

22 MR. CAMERON: We're going to go next to
23 Greg Jocoy and then we're going to go to Kitty Boriske
24 and then to Mary Olson. Greg.

1 MR. JOCOY: Yes. Thank you. I want to
2 thank -- let me see here. Okay. I go to a meeting
3 every Thursday and we kind of try to put a limit on
4 ourselves in terms of time, so hopefully I can keep a
5 good close eye on the clock and do that myself with a
6 little bit of self control.

7 Thank you to the Nuclear Regulatory
8 Commission for being here tonight, most especially
9 those of you who are on their staff. I know that
10 you're, you know, getting compensated for being here,
11 but it's also, you know, well past beer thirty, so I
12 appreciate you all being here.

13 You all face a really particularly
14 difficult challenge. Nuclear power currently supplies
15 about 20 percent of our nation's electricity needs.
16 Through rigorous adherence to NRC safety regulations
17 the agency is confident that the production of nuclear
18 fuel is a safe and valuable contribution to the
19 continuing supply of nuclear power in the United
20 States. Right out of your document that I got today,
21 it makes it sound like a cheering section for the
22 nuclear industry, not their regulators. That's a
23 problem for some of us.

24 The Department of Energy is the department
25 of nuclear bombs. That's their primary

1 responsibility, okay? Let's separate the Department
2 of Energy from the Nuclear Regulatory Commission and
3 keep our focus on the Nuclear Regulatory Commission
4 regulating the health and safety as your documentation
5 up here on the wall indicated is your primary focus.
6 I believe that for you folks as individual people that
7 is your primary focus. However, the people at higher
8 levels, the government officials and so on like that
9 who kind of oversee the entire program may not have
10 the same level of concern as you do for those types of
11 issues.

12 I swore I wasn't going to be nervous, but
13 I am anyway. I can't remember his name to save my
14 life right now, but -- with Duke said that the --
15 addressed the issue that someone else brought up
16 earlier, this gentleman over here. What we learned in
17 kindergarten, we're not supposed to make one mess
18 unless we've cleaned up the one that we've already
19 made, and that's not what we're doing. We're
20 proceeding to make a new mess before we've cleaned up
21 the one that we've already made. And let's not fool
22 ourselves, we made it for our own benefit, for all of
23 our benefits so we all have a responsibility, and I
24 hope that each of us who are here tonight, no matter
25 what side of the issue you stand on, will go beyond

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1 this meeting tonight. Write those comments to the NRC
2 so that they can review these, and take the next step,
3 contact your city council person, contact your county
4 council person, make them aware of your feelings so
5 that they can then pass those feelings on to other
6 people.

7 And the gentleman from Duke Power, I've
8 got to tell you, if I'm a stockholder in your company
9 and I hear you up here saying that, you know, profits
10 are not your primary motivation I'm going to be real
11 unhappy with you because, dog-gone-it I thought that's
12 what I invested in your company for, you know, for you
13 to make as much money for me as possible.

14 The equating of handling nuclear weapons
15 grade plutonium is a question for the federal
16 government to be dealing with, not a private
17 corporation. You all make energy to make money.
18 That's cool, we're okay with that. We don't want you
19 to handle nuclear waste, okay, we didn't ask you to be
20 a new company responsible for getting rid of nuclear
21 proliferation. That's something the government's
22 supposed to do, so you all can stay out of that, okay,
23 that's cool by all of us.

24 I agree with the Price-Anderson Act. You
25 guys want to do away with the Price-Anderson Act, you

1 can do whatever you want to because then they're going
2 to go right into the pockets of every person who owns
3 stock in these companies, and people who held their
4 stock because they're going to know that if they own
5 stock in those companies and there is a nuclear
6 accident everyone who owns stock in those companies is
7 going to be decimated -- and I'm about to run out of
8 time here.

9 Jennifer said the decision has been
10 addressed at least that she's aware of since 1995.
11 Today is the 8th. We've got until the 21st to get in
12 our written comments. Come on, please. That's not
13 enough time. That's not fair. I mean, I've only been
14 aware of this issue myself for, what, six, seven
15 months, but you guys have known about it since 1995?
16 Give us a break. I mean, I have kids. I've got a
17 business to run. I can't necessarily sit right down
18 and write out comments lickety split like that, I've
19 got other things I've got to deal with. You need to
20 extend that time, and I agree we need a meeting in
21 Columbia because I live in Fort Mill, okay, and I
22 appreciate the people saying, you know, hey, the
23 Catawba plant's a neighbor of mine, I understand all
24 that, okay? Get on 160. Try to get off that highway
25 when the schools let out. If there's a problem with

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1 that plant, I mean, you can't even get up there when
2 the weather -- you know, when there's rain much less
3 snow or ice or anything like that, and last of all --
4 oh, yes, the primary -- you know, the question of, you
5 know, we wouldn't be doing this if, you know, we
6 thought that it's -- we're not doing it to make money
7 and so on like that, you know, this is being done by
8 Duke Power and the other power industries to
9 regenerate, to restart the nuclear power industry. We
10 haven't built a new plant in 20 years or longer than
11 that. That's why they're doing this because they want
12 to regenerate the nuclear power industry because you
13 get one bite of the apple and, damn it, that apple was
14 Chernobyl. Thanks.

15 MR. CAMERON: Okay. Thank you, Greg.
16 Thanks for being punctual on that. Kitty?

17 MS. BORISKE: Hi. My name is Kitty
18 Boriske and I'm from Asheville, North Carolina, and I
19 have the distinct honor tonight of reading a statement
20 by the mayor of Asheville, Leni Sitnick, who could not
21 be here to speak for herself. I've also been told by
22 Chip that I have to edit it down as I go and I'll do
23 the best I can with that because it's a little bit
24 longer than he thought it should be. So I'll start
25 with the third paragraph.

1 This says, "The Nuclear Regulatory
2 Commission has the authority and responsibility for
3 protection of public health, safety and our
4 environment. I would like to underscore some reasons
5 that the no-NRC action denial of any license for the
6 use of plutonium as a fuel would best serve your
7 mandate for such protection. First I'd like to remind
8 the NRC that the question of a license to change the
9 type of fuel used in these commercial nuclear power
10 reactors is not strictly a business decision by Duke
11 Power. To the contrary, the customer paying the bill
12 for this program is all of us, the taxpayers. Global
13 non-proliferation and national security needs has been
14 given as justification for taking on the additional
15 risks and expense associated with plutonium fuel.
16 These dimensions also clearly extend this decision far
17 beyond the Duke board room. The increased risks and
18 real questions about whether plutonium fuel would
19 actually serve the goal of reducing global nuclear
20 weapons dangers are worthy of our attention. Since
21 there is an approved alternative for disposal of
22 plutonium, namely immobilization, these comments are
23 not to be taken to imply that we should do nothing
24 with the surplus plutonium. Rather, they are offered
25 in the context of NRC's decision which is limited to

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1 the licensing step for plutonium fuel production and
2 use. Making weapons grade plutonium is a commodity
3 for commercial trade, it's just not a very credible
4 way to safeguard it from falling into the wrong hands.
5 In the age of the Internet and a free flow of
6 information, nuclear non-proliferation depends in
7 large part on the control of weapons usable materials.
8 Until the plutonium has been used in the reactor it
9 can still easily be reused for a bomb. It has already
10 been reported that Russian plutonium fuel produced in
11 the twin fuel program under US/Russian accords may be
12 exported to nuclear client nations including countries
13 like Iraq and North Korea. How will the U.S.
14 plutonium fuel program limit this delivery of weapons
15 usable material?" I don't see how it can either.

16 "Indeed, the transportation of new, unused
17 weapons grade fuel in the southeast is a real
18 vulnerability of the U.S. program." I'll learn to
19 read someday. "Asheville is not on the route between
20 the Savannah River Site where the fuel would be made
21 and the Duke reactors, but many other Carolina towns
22 and cities are. On the other hand, Asheville could be
23 directly impacted if there were to be even an
24 unsuccessful attempt at a diversion of one of these
25 shipments" -- let me skip down a little bit of this.

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1 But she says, "The possibility of adverse
2 consequences on tourism and seasonal residence, so
3 vital to the economy of western North Carolina are
4 very real," and I think that added perception is
5 something that we all have to think about. It doesn't
6 matter whether something actually happens because a
7 lot of people think it might. We have to take that
8 into consideration. "Members of the NRC's own
9 advisory committee on reactive safeguards, composed of
10 acknowledged experts has stated that there will be
11 criticality headaches in every step of the way since
12 the characteristics of plutonium are very different
13 from uranium. Further, a member of that same
14 committee, Dr. Dana Powers, has raised specific
15 concerns about the vulnerable containment of Duke's
16 four reactors. They are of a rare ice condenser
17 design," -- and we've heard all that before. "What
18 possible justification would the NRC have under the
19 mandate of protection of public health, safety and our
20 environment to license reactors which are already
21 known to have a higher level of risk in the event of
22 an accident. This is particularly startling since
23 plutonium fuel is more deadly than uranium. What
24 possible justification can there be for further
25 jeopardizing this beautiful region and the lives of so

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1 many?" And at the end she says, "As a public official
2 who takes my role and responsibility very seriously I
3 urge you to take all of these factors into
4 consideration and refrain from licensing this very
5 risky ill-advised program. Ms. Leni Sitnick, Mayor of
6 Asheville."

7 I'm going to take one more minute for a
8 personal statement. Other speakers have given you
9 some of the technical reasons why the production of
10 mixed oxide fuel in the Duke reactors is a bad idea,
11 and many of them have more expertise in these areas
12 than I do, so I'm asking for your indulgence when I
13 speak on a bit more personal level. I've lived in
14 western North Carolina all my life. My roots go deep
15 here. On my mother's side of the family there were
16 pioneers who settled here in the mid 18th century. I
17 bring this up because it helps to explain why I am so
18 angry to think that this land that I care so deeply
19 about would be put at risk for as I see it no other
20 reason than a combination of greed and short-
21 sightedness.

22 As a child during the Depression era I
23 lived in a household with my grandfather who had done
24 legal work for Duke Power Company when they acquired
25 land for their hydroelectric plant at Lake James, and

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1 I grew up in Morganton. I was brought up with a view
2 of Duke Power as a paragon of integrity and good
3 judgment like some of you workers here spoke tonight.
4 It has, therefore, been doubly distressing to me that
5 Duke has allowed themselves to be brought into this
6 scheme which all my research has convinced me makes no
7 sense either from a financial or a health and safety
8 perspective.

9 You who represent the Nuclear Regulatory
10 Commission have both the power and the responsibility
11 to stop this plan from going forward and for coming up
12 with a better way of dealing with our excess weapons-
13 grade plutonium. I urge you to take your job
14 seriously and to do what you must in your hearts
15 realize is the right thing to do. Thank you.

16 MR. CAMERON: Thank you very much. Going
17 to Mary Olson and then Peter Siff, Robin Mills and
18 Steve Nesbitt. Mary Olson.

19 M S . O L S O N :

20 Thank you. My name is Mary Olson. I am the
21 director of the southeast office of Nuclear
22 Information and Resource Service. We are a national
23 organization with over 1000 grass roots organizations
24 as members, folks who are concerned about commercial

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1 nuclear power and its radioactive waste, and I'll set
2 my three-minute timer.

3 Okay. The first thing I want to do is
4 underscore that I agree with much of what was said
5 tonight and I'll endeavor not to repeat most of it,
6 but there's a few things I do want to repeat. One of
7 which is the request for the comment extension because
8 this entire program is a moving target. If you read
9 the paper, the conditions and parameters are changing
10 daily. President Bush has just threatened to cancel
11 any funding for the Russian half of the program. In
12 that light, we need more time.

13 The second thing I want to reiterate is
14 that we are the clients here tonight, we who pay taxes
15 to the United States. DCS and Duke are contractors to
16 the Department of Energy, and so ultimately NRC needs
17 to think of us as their client. Nuclear Information
18 and Resource Service calls on Nuclear Regulatory
19 Commission to deny the use of MOX in any reactor
20 anywhere. However, we believe that the ice condenser
21 should be categorically removed from the table
22 immediately because of concerns that have been raised
23 not only by the non-government community, but also
24 your very own experts on the advisory committee for
25 reactor safety and safeguards. As Dr. Ed Lyman says,

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1 the containment at the ice condensers is tissue paper.
2 There is no physical, structural containment at these
3 four reactors. That's what we said about Chernobyl,
4 and that's also what the nuclear industry in the
5 United States and the Nuclear Regulatory Commission
6 said about why there could never be a Chernobyl in the
7 United States because supposedly we have structural
8 containment at all our reactors. It's not true. The
9 four Duke reactors do not have it, and they should be
10 categorically excluded from any further consideration.

11 So what if Chernobyl had 25 percent
12 greater health impacts in terms of fatal cancers?
13 That's what we're looking at in terms of the amount of
14 damage that MOX fuel would incur in the event of one
15 of those large accidents. And what could cause it?
16 Well, the most well characterized cause of such an
17 major accident would be loss of power at the site and
18 loss of backup power during a station blackout. I
19 spent the year of 1999 educating policy makers on
20 station blackout because of the concern about Y2K and
21 what the energy delivery risks were through that
22 rollover. Well, thankfully they did it, the homework
23 was done, the fixes were put in and we did not have
24 blackouts, but all you have to do is look at
25 California and you understand why the NRC itself has

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1 said that energy deregulation could be de-stabilized
2 with more nuclear power because of the possibility of
3 irregular delivery of electricity. And then you start
4 putting experimental fuel into these same reactors
5 that cannot tolerate station blackout? There's 25
6 percent more deaths. NRC, you have absolutely no
7 reason to continue considering the Duke reactors.
8 Take them off the table.

9 Okay. I've got three minutes. I have one
10 minute to make all the other points, boy, oh boy.
11 When it comes to your analysis, because I know you'll
12 do one, please include the population dose. Just
13 because they (indiscernible) doesn't mean you
14 shouldn't look at it, and when you look at it please
15 don't look at only the impacts at Savannah River Site
16 or the impact at the Duke reactors. We have to look
17 at the whole footprint. Yes, there is more plutonium
18 in high level waste. I looked at the ACRS transcript
19 and Mr. Johnson himself acknowledged that it's about
20 the same and the DCS says it's 2.5 percent which is
21 two and a half times more than what's in uranium fuel.
22 So we're talking about more plutonium throughout this
23 whole system. We're talking about increased worker
24 doses at reactors and not just reactors. What about
25 the nuclear laundries, what about the transport of so-

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1 called low level waste? What about those accidents?
2 What about the low level waste dump that's going to
3 close before this fuel ever comes out? What's North
4 Carolina going to do with the McGuire MOX irradiated
5 so-called low level waste, uh? And what about the
6 workers at those sites and what about the communities
7 that are affected by the runoff and the air emissions
8 and all that?

9 Okay. So you get the idea. It's the
10 laundries, it's the low level waste, it's the air
11 emissions, it's the water emissions, and then it's the
12 high level waste, and I just want to mention that in
13 the last week Department of Energy has decided they
14 can't do a hot dump at Yucca Mountain. There will be
15 a significant reduction in the high level waste that
16 can go there. A previous director has estimated that
17 only about a third to a quarter of this generation of
18 reactors' waste will go to Yucca Mountain with what's
19 called the cool model, less waste, not as hot. Well,
20 MOX is hotter, so is North Carolina prepared to hold
21 on to the MOX waste for the second or third repository
22 or possibly the fourth? And this should be looked at
23 by the NRC if there's any analysis of reactor impacts.
24 Thank you.

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1 MR. CAMERON: Thank you, Mary. We're
2 going to go to Peter Siff and Robin Mills, Steve
3 Nesbitt and Jack Gibb.

4 MR. SIFF: My name is Peter Siff and I
5 appreciate the NRC coming to Charlotte today. I
6 appreciate the country we live in because, for
7 example, in France they're not allowed to give the
8 information to companies like COGEMA that's not what's
9 called public information, it's not allowed. And so
10 I lived over in Georgia, I worked at SRS, I worked
11 there six months because they polluted the water so
12 severely over there the city put a 250,000 gallon
13 water tank up in the air. We run pipes and pumps and
14 filters so they could have clean water, but in the
15 newspaper in the area, they don't talk bad about --
16 they just don't do that, and that's happened here in
17 this town. This newspaper here, you don't really talk
18 bad about people, and this business about the
19 neighborhoods being clean, well, yeah, they don't give
20 -- it's not the same thing as coal, that's true,
21 however, comma, when the nuclear regulatory (sound
22 system fails) from radiation come out that's routine.
23 That's accepted. (Indiscernible) the operations that
24 went on there, and only 20 percent of electricity is
25 generated by nuclear in this country and over in

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1 Georgia, there, that place was only four hours from a
2 knock down because of a truck backed into a
3 substation, and there's no guarantee that these people
4 -- they talk good talk, but there's no guarantee, they
5 cannot for sure say that one of those places won't
6 melt down. It's no guarantee. That's why public they
7 won't come close to insuring it because there's no
8 guarantee, not one, and Duke is in it for the money
9 because they get the federal tax money and then they
10 get money for the electrical bill. They're in it for
11 the money. How many letters of opposition in the
12 Charlotte newspaper has anybody seen about the MOX
13 program? Okay. Okay. What about the waste from
14 nuclear -- what about all the waste, the gallons of
15 waste that's sold to (indiscernible)? If's in the
16 drinking water so they drill the wells. What about
17 that? That's okay. So there'll be more. Now, with
18 the current administration in Russia, we don't need
19 (indiscernible)? Sure. What good is it? It's really
20 sad to see the vice-president on the TV -- what are we
21 going to do without clean water, what are we going to
22 do. That's what we need to think about.

23 MR. CAMERON: Thank you, Peter. I've got
24 Robin Mills, Steve Nesbitt. Robin Mills first.

25 MS. MILLS: I pass.

1 MR. CAMERON: Okay, Robin. We'll go to
2 Steve and then we'll go to Jack Gibb -- John, John
3 Gibb. Okay. This is Steve Nesbitt.

4 MR. NESBITT: I'm Steve Nesbitt and I'm a
5 member of a local community here. I grew up in
6 eastern North Carolina, moved to Charlotte in 1982 and
7 I lived here in Charlotte city limits close to McGuire
8 nuclear station however. I'm also the Mixed Oxide
9 Fuel Project Manager for Duke Power so I come up here
10 with a point of view. I'm not expecting to change
11 anybody's mind that's in this room right now, but I do
12 want to give you a few pieces of information
13 concerning things that were raised earlier in this
14 meeting, some questions that were asked, and also make
15 a comment on the scope of the environmental impact
16 statement.

17 First of all, a question was asked in the
18 first part of this session about the use of mixed
19 oxide fuel in the past and why it's being proposed for
20 use in this project. I'd like to get a little more
21 information about that. Mixed oxide fuel was first
22 used in a pressurized water reactor in 1963 in the
23 (indiscernible) reactor. There's been extensive
24 demonstration programs for mixed oxide fuel in the
25 United States and over in Europe. A fact that's not

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1 known by too many people is the fact that many of the
2 United States demonstration programs employed
3 plutonium that was very close to weapons grade, much
4 closer to weapons grade than reactor grade. The
5 Europeans have been using mixed oxide fuel on a
6 production scale since the late 1970s. Currently 35
7 nuclear reactors in Europe, Germany, France, Belgium
8 and Switzerland are using mixed oxide fuel. They have
9 documented evidence that the fuels perform safely and
10 commensurately with the low waste draining fuel.

11 I'd like to address the question of the
12 weapons grade versus reactor grade which has been
13 raised a couple of times. In the report that the NRC
14 referred to the fuel qualification plan, it provided
15 an extensive amount of information that demonstrates
16 that weapons grade MOX fuel acts very similarly to
17 reactor grade fuel. In fact, if you look at how our
18 conventional fuel acts in a reactor and how reactor
19 grade fuel acts in a reactor, the weapons grade MOX
20 fuel is even closer to conventional fuel than reactor
21 grade fuel. So that issue is a red herring.

22 We got involved in this program -- we
23 started looking at in 1995 shortly after the National
24 Academy of Sciences issued its report which called the
25 presence of surplus weapons plutonium in the United

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1 States and in Russia as a clear and present danger to
2 national and international security. It still is and
3 nothing that's said tonight will make that danger go
4 away. However, if we dispose of this fuel that will
5 help make that danger go away. I would add that Duke
6 Energy was chosen in a competitive process in 1999 by
7 the Department of Energy and there were two other
8 teams excluding other utilities who were offering
9 their services to the Department of Energy to use
10 mixed oxide fuel.

11 Finally, concerning the scope of the
12 environmental impact statement. I recognize that the
13 NRC is considering indirect impacts including reactor
14 impacts in its proposed environmental impact statement
15 for the MOX fuel fabrication facility. I find that
16 rather interesting because to my knowledge there is
17 absolutely no precedent for including those kind of
18 impacts in an application to the Nuclear Regulatory
19 Commission for a fuel fabrication facility. So if you
20 do choose to go that route I think you need to address
21 the point of the precedent in light of a departure
22 from that precedent in your treatment of this issue.
23 At Duke we're going to submit a comprehensive report
24 to the Nuclear Regulatory Commission to address the
25 impacts of using mixed oxide fuel in our reactors. We

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1 anticipate a thorough review by the Nuclear Regulatory
2 Commission, and we anticipate that after extensive
3 review that we will get a favorable response from the
4 Nuclear Regulatory Commission to let us move forward
5 with this program.

6 However, we're concerned about the double
7 jeopardy issue. We don't think it's appropriate for
8 us to deal with reactor issues first in a MOX fuel
9 fabrication facility license application for a
10 facility that's hundreds of miles from our reactors
11 and then again later on. So that point would need to
12 be addressed in your environmental impact statement
13 scope document as well. Thank you.

14 MR. CAMERON: Thank you, Steve. Next we
15 go to John Gibb and then we'll go to Robert Mahood and
16 then --

17 M R . M O N I A K :

18 I do have to point out that there are three
19 other Russian guests here who --

20 MR. CAMERON: Don, Don, Don, please, let's
21 not waste --

22 M R . M O N I A K :

23 I want to say this.

24 MR. CAMERON: Okay. Don, we're not going
25 to waste any more time. I'm going to try to get our

1 Russian visitors up there for a short period of time
2 so let's not waste any more time. John.

3 MR. GIBB: Thank you, first of all, to the
4 Nuclear Regulatory Commission for allowing us to
5 speak. I also want to thank both the Blue Ridge
6 Environmental Defense League and Duke Energy; I went
7 to both open houses last week. I see everybody I
8 spoke with and I learned a lot.

9 I've lived in Charlotte about five years.
10 Most of my life I lived in Chicago, both the city and
11 the suburbs. The last 15 years there and the first
12 two years here I worked for (indiscernible). They
13 were and I guess still are the largest distributor of
14 steel, aluminum, copper, plastic mill products in the
15 country. In my time with (indiscernible) in Charlotte
16 I did not work with Duke, however, I worked
17 extensively with (indiscernible) both directly and
18 more so with their subcontractors.

19 I've learned several things, one is the
20 high importance of quality. In the metals industry
21 there's something called a critical requirement to
22 ensure quality control or for short CRM. This is put
23 in place because of the demand which is -- there's no
24 higher demand than material placed in the nuclear
25 energy industry. Unfortunately, and this is why I

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1 made my decision, I also learned that significant
2 violations of this occurred by several contractors
3 including people who would approach me to try to
4 violate the regulations and by several of our
5 competitors. One of them, and I can name these people
6 because they're out of business. U.S. Steel supplied
7 falsified documentation. They did supply correct
8 material. The next, Keystone Tool, they took it one
9 step further, found that they falsified material, but
10 they deliberately substituted a very inferior grade of
11 piping, piping that had no qualities to resist
12 pressure which is required in the application. U.S.
13 Steel supplied a severe civil penalties -- that's a
14 little different at Keystone, they were jailed,
15 neither one of these institutions is still in
16 business. Now, you might think that somebody would --
17 to risk that would profits. Absolutely not. The
18 initial gains they made were quite few. This calls
19 for me to question the intelligence of a lot of people
20 involved in this and that would be another point.

21 A few months before I moved to Charlotte
22 I toured the (indiscernible) Nuclear Station. That's
23 one of the plants in commonwealth Edison --
24 (indiscernible) in Charlotte. The reason I did this,
25 I was taking a class at the time and a number of

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1 people had expressed reservations about nuclear energy
2 and the teacher who was very much for nuclear energy
3 thought it would be a good idea to allay any fears.
4 Although his intentions were quite good, regrettably
5 the tour completely backfired. One of the reasons for
6 fear were reports documented in the Chicago Tribune of
7 people from the Nuclear Regulatory Commission checking
8 on different plants and finding operators doing things
9 they shouldn't, for example, being asleep while they
10 were supposed to be monitoring critical activity. Not
11 only did we find somebody who was not alert, but the
12 entire appearance of the place, the reactor looking
13 like a junkyard, employees were very rude and very
14 dismissive of safety concerns. Now, and I think that
15 the best summation was by our spokesman regarding
16 safety -- everybody's got to die from something.

17 Now, I'm not equating that plant with Duke
18 Energy, believe me. When I think of that plant I
19 think more of the plant on the cartoon series The
20 Simpsons, but still the point is is that it's under
21 the jurisdiction of the National Regulatory Commission
22 and I have the greatest respect for it. The point is
23 that employees with less than ideal attitudes and
24 behaviors can be a part, hopefully not long in a
25 facility, but they can be there, and the problem is

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1 that when difficulties arise at a nuclear facility
2 they happen quickly, not over a period of months and
3 months.

4 A quick example is remember Three Mile
5 Island? Now, we sometimes think that was the error of
6 very sophisticated data processing or reactions
7 themselves. Remember that? No, the problem was a
8 stuck valve, a stuck valve made worse by wrong,
9 although well-intentioned, actions of some of the
10 operators.

11 MR. CAMERON: John, I see you're ready to
12 finish, right?

13 MR. GIBB: Yes. I have a lot of respect
14 for the people I've met at Duke and I think they are
15 highly qualified, but I have to tell you I am opposed
16 to the whole program, not because of engineering, but
17 with all of the things you can do with engineering,
18 regrettably we cannot engineer out human failings and
19 I feel that the difference that's going to help them
20 with this is the consequence of human failings would
21 be much worse if something happens.

22 MR. CAMERON: Is Robert Mahood still here?

23 MR. MAHOOD: Yes, I am.

24 MR. CAMERON: And next we'll go to Betty.

25 All right. We'll go to Lou Patrie.

1 MR. MAHOOD: My name is Robert Mahood and
2 I'm an environmentalist. I'm a retired psychologist.
3 I've been interested in environmental problems around
4 here for several years. I've been mainly concerned
5 with water quality, but in looking at the paper every
6 day to look at whatever is being said about the
7 environment I have noticed over the years that nuclear
8 dangers are remarkable by their absence, and this
9 almost seems to be a national media blackout.

10 I'll give you one example. About 19 --
11 August 1998 I was on a train in Germany and someone
12 left a copy of The Davelt on the seat next to me.
13 That's one of their big newspapers, and I could read
14 it so I read it, and the story on the front page there
15 was a Green Peace that bought a an atomic bomb from a
16 Russian lieutenant. They paid him \$350,000, -- I bet
17 there are about 150 in this room that could buy an
18 atomic bomb -- there was an attempt and two soldiers
19 had managed to steal it and deliver it to Green Peace,
20 I forget, either Finland or Sweden, I am uncertain
21 about it at this time, but anyway, bought and paid for
22 and gotten out of the country. When I got back to the
23 States I said, you know, I said to my friends, I said,
24 hey, what did you think of that, and everybody said,
25 never heard of it, never heard a thing about it. I

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1 called up the Observer, nobody ever heard of it. I
2 called up AP, they didn't have anything to say about
3 it, and yet here it was on the front page of Davelt.
4 It kind of reminded me of when I lived over in Europe
5 during the Vietnam war and I would come home and tell
6 my parents about the atrocities of the Americans and
7 the south Vietnamese were committing and they said,
8 oh, what's the matter with you, are you a Communist,
9 never heard of anything like that. Kind of a news
10 blackout.

11 Another story, this one from France. I
12 was going down to (indiscernible) on a canoe with some
13 friends, we went on the water for five days, went
14 through many beautiful cities and villages and at one
15 point we came to a place where there was nothing,
16 where we were traveling pretty much fields of grass on
17 both sides for several miles. And then we saw
18 something big literally up ahead and it was one of the
19 state of the art French nuclear reactors, and at first
20 we thought we were going to have to portage around it
21 because we couldn't find any way through it seeing
22 nothing but the intake, but finally we found they
23 provided a channel for us and we went around it, and
24 then we went several more miles before we saw a house

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1 or any other kind of human activity. It was isolated.
2 It was out there by itself.

3 Now, we hear from a very distinguished
4 gentleman from Duke Power how much Duke is concerned
5 about our safety. Well, I think that may be so, they
6 may be, and you shouldn't live encapsulated in such a
7 little world that you only think about producing that
8 power and you don't think about what the left hand of
9 the company is doing because the left hand of the
10 company is a wholly-owned subsidiary of Crescent
11 Resources, and Crescent Resources, from which Duke
12 makes plenty of money has been easily grabbing houses
13 and strip malls and mall malls and cinemas and
14 whatever it could possibly squeeze into every
15 available patch of land that hasn't been bulldozed yet
16 around the McGuire plant and you've heard people say
17 what's already resulted. You can't get on to I-77 at
18 three times of the day, morning rush hour, evening
19 rush hour and noon. You can't get on I-77 from
20 anywhere around Lake Norman. What would happen if
21 there was some kind of panic.

22 Another thing, and I'm jumping around
23 because I'm skipping all the things that -- or most of
24 the things that other people have already talked
25 about.

1 MR. CAMERON: Robert, could I get you to
2 summarize?

3 MR. MAHOOD: I only have one more thing to
4 bring up --

5 MR. CAMERON: Thank you.

6 M R . M A H O O D :

7 -- and I don't think I'll need to summarize
8 anything. There is an issue of what we call thermal
9 pollution. This is something that people who study
10 ecological problems, problems -- of the things that
11 live in and around the water, and we already have
12 thermal pollution at Lake Norman. Lake Norman is
13 abnormally hot because of the cooling activity that is
14 taking place. I understand from what Duke has
15 published itself and what NRC has provided me and so
16 on, that the MOX fuel will burn somewhat hotter and
17 therefore the cooling problem will be a little bit
18 greater, they'll have to use more ice and more water
19 to cool and that will result in even hotter water.
20 Hotter water is changing the ecology. Somebody has
21 been reporting -- several people have reported a 10-
22 foot alligator in Lake Norman and they say that he
23 probably survived there because the lake is now hot
24 enough for the alligator. I'm not afraid of the
25 alligator, some people are. Some people won't let

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1 their kids in the water this summer because of it, but
2 if you have an alligator you can have all sorts of
3 ecological changes all the way down to bottom of the
4 food chain microscopic level and that needs to be part
5 of the consideration.

6 One other thing that you have not dealt at
7 all with the question of terrorism on the highway. If
8 I were a terrorist I'd be driving along on the road in
9 my truck full of fertilizer and kerosene and I would
10 be -- I would know that my buddy down the road was
11 going to -- at a given point was going to drop this
12 load on the road so that the traffic would have to
13 come to a halt. I would be -- stay beside the
14 plutonium truck, the traffic would come to a halt, I
15 would stop my truck beside the plutonium truck, I
16 would get out, I would climb over the fence and when
17 I got about two miles away I'd call a certain number
18 on my cell phone and vaporize the plutonium truck.
19 That could happen -- from what they tell me the truck
20 would be leaving about every nine days.

21 MR. CAMERON: Robert, I'm going to have to
22 ask you -- let's got to Lou Patrie, and I do -- I
23 don't want to rush you through, but I would like to at
24 least give our -- each of our Russian visitors a
25 little bit of time.

1 MR. PATRIE: I'm Dr. Lou Patrie. I am the
2 president of Western North Carolina Division for
3 Social Responsibility and I am a member of the board
4 of the Western North Carolina Air Quality Agency, and
5 I am from Buncombe County.

6 I am a critic of the statement that I
7 picked up about the Nuclear Regulatory Commission's
8 goal of informing the public about this matter. I've
9 talked to people in Raleigh, Charlotte, Greensboro,
10 Winston-Salem and Asheville and asked them what they
11 think of MOX and they don't have any idea of what MOX
12 is. I also notice that there is a scarcity of letters
13 to the editor about the subject in all the newspapers
14 of those areas except for Asheville. I also realize
15 that upon receiving a little information over 160 of
16 our citizens requested a hearing in Asheville last
17 fall. Perhaps this meeting tonight is a partial
18 response to that request, I don't know, but it's an
19 opportunity that I did not want to pass up to come
20 here. I wanted to contradict what some people say and
21 support what others have, but in as much as weapons
22 grade plutonium has never before been used, and I am
23 talking about weapons grade plutonium, used in
24 commercial reactors, these proposed actions are
25 experimental. These experiments have potential impact

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1 not only on the population of Mecklenburg County, but
2 on the entire southeastern United States, potentially.
3 The selection of McGuire and Catawba reactors has been
4 questioned already. I think that still that there is
5 further questions. What justifies the selection of
6 reactors located in proximity to a major metropolitan
7 area? These are questions that I think should be
8 included in the scoping process. What data is used to
9 ensure that weapons grade plutonium fuel will not
10 adversely endanger operations involving the
11 containment vessels and the operation of control fault
12 in these reactors. What data supports the safe use of
13 weapons grade plutonium fuel in such aging nuclear
14 reactors as the -- what criteria supports the
15 selection of these reactors considering they're
16 dependence upon metal containment rather than thick
17 concrete containment barriers. What criteria supports
18 the selection of these reactors considering their
19 dependence on ice cooling? This question has a basis
20 recently confirmed by the Nuclear Regulatory
21 Commission that should contain commercial power as
22 well as backup power to any of one of these four
23 reactors failed for even a few hours there is nearly
24 a 100 percent chance of a serious reaction which
25 brings to mind meltdown and Chernobyl. Are there not

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1 various scenarios that could result in such
2 catastrophe including severe weather events such as a
3 major tornado, terrorist intervention or just an
4 accident. What would be the financial, safety and
5 health costs of such a scenario? What measures could
6 be utilized to prepare the public for appropriate
7 response to such an event? That's a question of mass
8 evacuation of such a large metropolitan area can
9 address and I'm not just talking about a ten-mile
10 radius which the Nuclear Regulatory Commission
11 mentions in their publications.

12 In the planning of experimental use of
13 this fuel estimates of the extent of short-range and
14 long-range mortality and morbidity have been made.
15 Shouldn't such estimates be carried out and taken into
16 consideration, the increased numbers of fatal cancers
17 projected by the use of MOX fuel as compared to a
18 comparable accident involving uranium fuel? Have
19 area, regional and national medical facilities been
20 identified as to their capacity to manage acute and
21 long-term casualties should such a circumstance arise?

22 Now that the potassium iodide against
23 thyroid cancer has been approved by the National
24 Regulatory Commission -- the Nuclear Regulatory
25 Commission, what provisions should be in place to

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1 ensure that supply is available and the public is
2 prepared in order that it be offered immediately and
3 in sufficient quantities to provide protection to
4 infants, young children and pregnant women from the
5 risk of thyroid cancer and other thyroid conditions.
6 I recognize that there is some disagreement among
7 various international and U.S. agencies about the use
8 of iodized prophylaxis, but to (indiscernible) for
9 the above purpose has been established as opposed to
10 not using it to a significant incident if warranted in
11 its use. It's been estimated in terms of the extent
12 of the resulting morbidity and costs to society.

13 Almost finally, are governmental and
14 industrial nuclear experts going to risk lives,
15 health, safety, our economy and the livelihood of our
16 citizens in order to carry out this experiment?
17 Finally, has consideration been made about public
18 reaction to the entire nuclear industry should this
19 experiment result in a major nuclear accident?

20 MR. CAMERON: Thank you, Lou. We have a
21 short statement from three of our Russian visitors and
22 then we have a few more speakers and then we'll be
23 done and I would ask the first -- are you going to be
24 first?

25 MS. MIRONVA: Andrei.

1 MR. CAMERON: Okay. Go ahead.

2 MR. TALEVLIN (By Translation): My name is
3 Andrei Talevlin. I am from Russia from
4 (indiscernible). Mox in Russia is also developing.
5 We're also concerned about the same kind of problems
6 that you have. Naturally, Russia has its own
7 particularities, but plutonium stays plutonium and a
8 nuclear reactor is nuclear reactor. We ask our
9 government how many times does the gender increase --
10 accident increase if this reactor will use MOX fuel.
11 Is transportation of MOX fuel safe -- (unidentified
12 Russian speaker: spent) -- spent fuel? Will the
13 population be able to control the fuel during the
14 program? We have not received a good answer. The
15 main task about the fuels into this nation is to make
16 world a safe place to live. To withdraw plutonium
17 from the cycle, for example, the project of
18 immobilization of plutonium. Plutonium must be made
19 inaccessible to reach and not to develop kind of
20 problems as MOX problem. Thank you.

21 MR. KHIZHNYAK (By Translation): Last year
22 we had a big international conference on plutonium
23 problems, about the plutonium and MOX problems. We
24 have here several people who visited us at that
25 conference, Russians and Americans. We were not three

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1 hours as here, but we were -- we had been working for
2 five days. We listened our nuclear specialist from
3 nuclear energy production, but we didn't hear any
4 adequate answers on MOX fuel and using plutonium based
5 energy. In Russia it's really a political problem and
6 our politics they didn't used to listen to population
7 of doctors, and scientists and environmentalists.
8 That's why we cannot agree with MOX program, and
9 that's why we suggest only one decision as
10 immobilization of plutonium and (indiscernible).
11 Thank you.

12 MS. AKHMADEEVA: Good evening. My name is
13 Ekaterine Akhmadeeva, Chelyabinsk Young Ecological
14 (indiscernible). Now there is a possibility of
15 government (indiscernible). For example,
16 (indiscernible) in Russia (indiscernible) they were
17 dismissed, and my message is most of the plutonium
18 problems as future generations have to deal with the
19 consequences, consequences (indiscernible). Thank
20 you.

21 MR. CAMERON: Thank you very much. Thank
22 you. Let's go to Chuck Bietsman, Ann Weiss and Frank
23 Summers and then we have two more people. Do we still
24 have Chuck with us?

1 MR. BIETSMAN: Yeah. My name is Chuck
2 Bietsman and I've lived in the Carolinas since 1974.
3 I moved here from Missouri to go to work at a small
4 newspaper in South Carolina where I met my wife and we
5 had five kids and they're all native Carolinians now
6 either in South Carolina or North Carolina. Plus I
7 have cousins and uncles and aunts and in-laws all over
8 both states and live in the shadow of many nuclear
9 reactors, Oconee Station and the ones here, McGuire,
10 Catawba. I've been a Duke Power customer for almost
11 27 years now. That didn't prevent them from turning
12 off my electricity yesterday because I was a day late
13 paying my bill. They're not in it for the money
14 although tax dollars have built just about every one
15 of their facilities and it's, you know, like TVA
16 generated electricity it should be a public commodity
17 and not something that can be shut off irresponsibly,
18 and I've talked to many people, worked at -- I worked
19 in the public schools now, I have been a writer, an
20 editor, a journalist. I'm not a public speaker so
21 I'll probably ramble on here a couple minutes. I'm
22 very good at acronyms so you people like talking in
23 alphabet soup, I'll write you a lot of alphabet soup
24 up here and I'll get it over with real quick. But one
25 thing -- I'm not mad about Duke because my power's

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1 back on, it's just that we have very irresponsible
2 media, one of which I worked for for many years, the
3 Charlotte Observer, all of those is really fluff
4 pieces that Duke PR puts out about this issue. Okay.
5 But my main responsibility right now is educating
6 children in the Charlotte-Mecklenburg schools, and
7 that's what I'm here to ask the Nuclear Regulatory
8 Commission to do is to help me and other educators of
9 the school educate the children so they can go home
10 and educate their parents who aren't getting any
11 education from the media who are supposed to be the
12 school masters to the public of which the oldest
13 journalism school in the United States has some of
14 which I'm a graduate and I'm also Clemson University,
15 North Carolina's connection although I have this very
16 strange sounding foreign name. Please help us,
17 Nuclear Regulatory Commission, because we have an
18 irresponsible energy company in this town serving this
19 whole region and we have irresponsible media here who
20 aren't going to help the children protect the
21 environment that they're going to be living in for a
22 long time I hope, and that's about all I have to say.

23 MR. CAMERON: Thank you.

24 MR. BIETSMAN: We'll be getting lots of
25 these petitions to you from teachers and others.

1 MR. CAMERON: Thank you. You have a good
2 voice, it carries very well. Thank you. How about
3 Ann, Ann Weiss? And then -- we really need to be out
4 of this room by ten-thirty so I'm asking people to try
5 to summarize. Ann? Okay. Frank Summers. Leslie and
6 Karen, but you don't need to do it as a duet.

7 MS. MYERS: Hi, I drove up here from
8 Columbia, my name is Leslie Myers and I work at the
9 environmental (indiscernible) and I've requested we do
10 have a meeting in Columbia, and also thank you for not
11 shaking us down. The last time NRC was in Columbia
12 they didn't pat us down but they searched our purses.
13 I was kind of curious about that. Why did you all do
14 that? Anyway, I agree with the Russian gentleman,
15 whose name I can't pronounce, that this is a political
16 decision. We are building a MOX plant in South
17 Carolina because it is our little third world section
18 of the country. We started the Civil War
19 (indiscernible), but there is no direct relationship
20 between South Carolina being the lowest in education,
21 highest in teen pregnancy, highest in illiteracy rate,
22 but sometimes Mississippi vies with us, so thank God
23 for Mississippi, and there is a direct relationship
24 between that and us having (indiscernible) MOX
25 facility which I know that the government and the

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1 nuclear industry would like to see it eventually
2 turned into a national reprocessing center for spent
3 nuclear fuel. We can forget Yucca Mountain, we can
4 rename Savannah River, not after Strom like
5 (indiscernible). This is planned, this is all planned
6 because the nuclear industry is near its life span as
7 someone else has mentioned and they're desperate and
8 this is what they're working on with taxpayer dollars.
9 Someone said that nuclear energy was cheap. What?
10 What is the tax amount that's been subsidized by --
11 since its inception? 47 -- is it billion or million?
12 After a while it just all runs together. Another
13 thing is it's a high -- I went to DOE meeting last
14 week in Columbia about the tank farms, I lost that
15 number too, millions and millions of gallons of liquid
16 waste that they do not know what to do with that's
17 been sitting there since the '40s, they keep
18 accumulated it, they just cancelled this last that
19 they spent \$500 million on. They can't be able to do
20 that and now they're going to spend a whole bunch more
21 for this MOX plan. When they first came up with this
22 deal on the MOX plan they sort of glossed over it.
23 It's just going to be a little bit of liquid waste.

24 Well, now it's going to be up to millions
25 of gallons of liquid waste which we in South Carolina

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1 are going to sit on in eight of those tanks -- nine or
2 ten of those tanks (indiscernible). We're tired of
3 it. This is not what we need to do with this excess
4 plutonium. You need to immobilize it. We need to
5 come up with another plan. What is the big rush and
6 what happens to the immobilization plan? I really
7 want to know. What about the cleanup? We don't need
8 any more mess down there. Please come down to
9 Columbia and I'll tell you this all over again. Thank
10 you.

11 MR. CAMERON: Thank you. Thank you,
12 Leslie. Karen Gordon.

13 MS. GORDON: Good evening. My name is
14 Karen Gordon and I'm also from Columbia, South
15 Carolina, and I'll do this real quick because most of
16 you people have covered what I wanted to cover. But
17 there were a couple of issues, safety issues,
18 transportation issues and accidents. Well, I use to
19 live near there, interstate nuclear services of the
20 Savannah River Site and they (indiscernible) the
21 trucks are contaminated. Plutonium can contaminate
22 the (indiscernible). You know, what happens if
23 plutonium is lost? It only takes a small amount of
24 plutonium to make a bomb. It only takes a small
25 amount of plutonium to make people sick. So those are

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1 my concerns about transportation, and (indiscernible)
2 transported to the nuclear reactors. And my final
3 safety concern is does anybody know that the Savannah
4 River Site is on a fault line? You know, and it
5 hasn't gone off yet, but when it goes off it could be
6 big and that would be just a tremendous disaster, and
7 I just wanted to recommend to the Commission that
8 immobilization is the way to go and if they can't
9 decide to do that now then you need to wait until they
10 find a better alternative, but it's not safe. Thank
11 you.

12 MR. CAMERON: Thank you. Thank you,
13 Karen, and thank all of you for your comments and for
14 listening tonight and thank you, visitors from Russia,
15 thank you for your comments and the NRC has heard a
16 couple of process issues, meeting in Columbia, extend
17 the comment period, the staff has asked me to just
18 note that regardless of what is done on this that
19 comments that come in after the comment period will be
20 considered in developing the EIS. They might not make
21 it into the scoping report, but I would just thank all
22 of you and I think they're going to be trying to move
23 us out of here pretty quickly so we, unfortunately,

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1 don't have time to chat, but thank you and we're
2 adjourned.

3 (Whereupon, the meeting was concluded at
4 10:30 p.m.)

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