

UNITED STATES OF AMERICA
U.S. NUCLEAR REGULATORY COMMISSION

PUBLIC SCOPING MEETING FOR THE ENVIRONMENTAL
IMPACT STATEMENT TO SUPPORT AN UPDATED
WASTE CONFIDENCE DECISION AND RULE

NOVEMBER 14, 2012

1:00 P.M.

TRANSCRIPT OF PROCEEDINGS

Public Meeting

APPEARANCES

NRC Staff:

Chip Cameron, Facilitator

Dr. Keith McConnell, Director
Waste Confidence Directorate
Office of Nuclear Material Safety and Safeguards

Tison Campbell, Attorney
Office of the General Counsel

Paul Michalak, Branch Chief
Environmental Impact Statement Branch
Office of Nuclear Material Safety and Safeguards

Andy Imboden, Branch Chief
Communications, Planning and Rulemaking Branch
Office of Nuclear Material Safety and Safeguards

1 that you say to the NRC today is going to carry the same weight as a written
2 comment. And of course if you want to elaborate on anything you say today in a
3 written comment, that's also perfectly fine.

4 The format for the meeting is fairly simple, we're going to start with
5 some brief NRC staff presentations, and then we're going to go to question-and-
6 answer after those presentations, and then we'll go to public comment. And I'll
7 go over the agenda in more detail in a few moments, but that's the simple part.
8 The complicated part of all this is we not only have all of you in the room here in
9 Rockville, Maryland, but we also have people around the country who are
10 viewing a webcast of this meeting, and they will be able to participate by phone,
11 asking questions, providing comments, and we have a limited amount of time as
12 usual. So I'm going to suggest in a few minutes ground rules, so that we can
13 have an equitable and efficient meeting.

14 Now, there are other ways to participate and provide the NRC with
15 your views. There's written comments, which I mentioned. Tonight there is
16 going to be a webcast from 9:00 p.m. to midnight, Eastern Time, and all of you
17 are welcome in the room, and I'm also talking to all of you out there in webcast
18 land on the phones, welcome to join in and watch that webcast. We'll be doing
19 the same presentations, but it will give people a fresh opportunity to ask
20 questions and make comments. The third method of getting information and
21 giving information to the NRC staff, there's going to be two what are called
22 webinars, and one is going to be on December 5th, from 1:00 to 4:00 Eastern,
23 and then the next one will be on December 6th, from 9:00 to 12:00 Eastern
24 Standard Time. And you can phone in to those webinars and you can also do
25 instant messaging to give comments or questions to the NRC staff. So, there's a

1 lot of different ways to be involved here.

2 In terms of the agenda, we're going to start with the staff
3 presentations, and first of all we're going to give you some background on the
4 organization and mission of a new organization within the Nuclear Regulatory
5 Commission, and that's the Waste Confidence Directorate. And we're going to
6 go to Keith McConnell, who is right here. He's the director of the new
7 organization and he's going to give you some background on that. Next, we're
8 going to give you some background on waste confidence generally, and we're
9 going to go to Tison Campbell, from our Office of General Counsel. And after
10 Tison, we're going to have Paul Michalak, who's right down here. He's going to
11 talk about the NRC's approach to scoping for the environmental impact
12 statement, and Paul is the Chief of the Environmental Impact Statement Branch,
13 within the Waste Confidence Directorate. Now, our final presentation is going to
14 be on public participation opportunities, and for that we have the Branch Chief of
15 the Communications, Planning, and Rulemaking Branch, and that's Andy
16 Imboden, down at the end.

17 Let me tell you a little bit more about each of the presenters, and let
18 me start with Keith, who joined the NRC staff in 1986, as a geologist, and then he
19 was on the staff of various commissioners, Chairman Diaz, Chairman Meserve,
20 Chairman Selin. He has served as the director of the Commission's Adjudicatory
21 Technical Support Program that's within the Office of General Counsel, and his
22 most recent position before he became the director of the directorate was he was
23 the deputy director of the Decommissioning and Uranium Recovery Directorate,
24 directorate in the NRC's Office of Federal and State Materials Environmental
25 Management Program. His educational background, he has a bachelor's degree

1 in geography -- or geology, from Clemson University. He got his master's in
2 geological sciences from Virginia Polytech, and he also has a Ph.D. in
3 environmental -- well, in geology and the Ph.D. is from the University of South
4 Carolina.

5 Tison's background, Tison joined OGC in 2006 as part of what's
6 called the Honor Law Program in the Office of General Counsel, where the
7 people who were at the highest positions in their graduating class from law
8 school come into the NRC Office of General Counsel, and he has a -- he's
9 worked on a lot of waste management issues, not just waste confidence. But
10 that's one of his strengths, but he's also worked on low-level waste disposal, and
11 the West Valley site. He has a bachelor's degree in physics from the University
12 of Virginia. He graduated from the University of Virginia Law School, and he
13 undertook some special studies in international environmental law and human
14 rights at the University of Nottingham. And I guess I should say that's in
15 England, but it is.

16 Paul Michalak, who is going to be talking about the approach to
17 scoping, he came to the NRC in 2005 as a hydrologist in the uranium recovery
18 program, and he's been a senior project manager in the NRC's Office of New
19 Reactors, working on the environmental impact statements that the NRC
20 prepares on any application, license application, to build and operate a new
21 reactor. He was an environmental consultant before he came to the NRC, and
22 before he joined the Waste Confidence Directorate, he was the branch chief of
23 the Materials Decommissioning Branch in the Office of Federal State Programs,
24 which is called FSME or F-S-M-E usually, instead of repeating that long name.
25 His educational background is bachelor's in education from Temple University,

1 and he got a master's in hydrology from the New Mexico Institute of Mining and
2 Technology.

3 And finally, Andy Imboden, he began his career with the NRC in
4 2004, and he's been on the staff of the Executive Director for Operations here at
5 the NRC, and also was on Chairman Jaczko's staff, and he -- before he came to
6 the -- well, maybe not right before he came to the Waste Confidence Directorate,
7 but he was the chief of the Environmental Review Branch for License Renewal,
8 reactor license renewals in the Office of Nuclear Reactor Regulation. And his
9 position before he came to the Waste Confidence Directorate is he was
10 Chairman Macfarlane's policy advisor on materials issues. So that's a wealth of
11 expertise that's before you at the table.

12 After they're done with their presentations, then we're going to go
13 for question and answers. We'll take a short break then, and then we're going to
14 come back, and we'll do the comment period. In terms of ground rules, I would
15 just ask you to just please hold all your questions until after all the NRC staff
16 presentations are completed, so that you can get the total picture before we go to
17 questions. And try to be brief in your questions and comments. The reason for
18 that is we have a lot of people who want to talk, both here in the room and on the
19 phone. So we want to make sure that we get to all of you before we close this
20 afternoon's meeting, and when we get to written comments, I'm going to ask you
21 to follow a guideline of four to five minutes. If you're going a little over, I
22 apologize in advance, if I have to ask you to wrap up. Nothing more dreadful
23 than that will happen to you, I promise, but remember the other opportunities you
24 have to submit comments too, if you do have to wrap up early.

25 When we go to questions, comments, I would ask you to come up

1 to the podium so that everybody can hear you, and Sawyer Smith, our court
2 reporter, is taking a transcript of the meeting, and that transcript will be your
3 record of the meeting, and the NRC's record of the meeting. And that's how the
4 comments that you give here in Rockville or over the phone, they will be
5 considered as formal comments on scoping, scope of the environmental impact
6 statement. We've had a lot of people sign, register in advance, both in the
7 audience and on the phones to speak. If you do want to make a comment and
8 you're here in the room, make sure you fill out one of these yellow cards, and you
9 could provide that to Susan Wittick, who's right down here, and then we'll put you
10 on the list. I'm going to try to divide the time equally between the commenters in
11 the room and the commenters on the phone, but because there are basically
12 three more opportunities, the webcast tonight, the webinars in December, I might
13 shade towards going to people in the audience here in the room, since they've
14 come up, but we want to try to get to all of you.

15 And a final thing I would say is that during the comment period, the
16 NRC staff is here to carefully listen to what you have to say. They're not going to
17 be responding to the comments that you give today, nor are they going to
18 respond to any questions that you might ask from the podium, but they are
19 listening carefully. They are going to give those comments and questions full
20 consideration in developing the scope of the environmental impact statement,
21 and they're going to be doing that immediately after this meeting. That's why
22 your oral comments today are very important, even though they're only four
23 minutes long, they're going to start thinking about how that applies to the scoping
24 issues in front of them. And with that I'm sorry if I went on for too long, but I'll go
25 to Keith, Keith McConnell.

1 KEITH MCCONNELL: Okay thank you, Chip, and good afternoon,
2 everyone. I too would like to welcome you here to this public scoping meeting for
3 the generic environmental impact statement, to support the revised waste
4 confidence decision and rule. What I'm going to do is to provide some brief
5 introductory remarks on the meeting purposes, the mission of the NRC, and the
6 mission of the newly formed Waste Confidence Directorate, which was just
7 recently formed and tasked with the undertaking this effort to develop the generic
8 environmental impact statement. So in terms of meeting purposes, there are
9 four. First is to provide some background information on waste confidence, what
10 it is, and Tison will do that. We'll move on, as Chip has indicated, and talk about
11 some proposals we have for scoping the environmental impact statement, and
12 Paul will do that. We'll talk about the public participation opportunities that exist
13 with this process, and I would note up front that we're taking fairly extraordinary
14 measures in terms of making sure that we're able to outreach to all groups that
15 might be interested in the waste confidence effort, and make sure that they have
16 opportunities to participate. And Andy will talk to you about that, but most
17 important is particularly for this particular meeting is we do want to hear from you.
18 So, next slide.

19 Before we enter into discussion about the generic environmental
20 impact statement, it's important to be aware of two considerations. The first is as
21 you may be aware, earlier this year the U.S. Court of Appeals for the District of
22 Columbia vacated the 2010 version of the Waste Confidence Decision and
23 remanded it back to us to address three deficiencies that they observed in our
24 environmental review process. So moving forward, a big part of our effort is
25 going to address those three deficiencies. The second consideration is that

1 shortly after the court decision was made public, the NRC Commission made a
2 determination that it would not issue final licenses that are dependent, or for
3 those facilities that are dependent on the Waste Confidence Decision until we
4 complete our analysis and the revision of the Waste Confidence Decision is also
5 done.

6 So moving on, in terms of the NRC's mission, we have three
7 elements to our mission. The first is the protection of public health and safety.
8 We implement that through the licensing and inspection of nuclear power plants,
9 and the users of nuclear materials. The second is to promote the common
10 defense and security. We implement that through the issuance of proper security
11 measures based on the existing threat within the United States, and the third
12 element is the protection of the environment. We implement that through the
13 identification, and consideration of environmental impacts in the licensing
14 decisions that we undertake. I would note that we have over 30 years of
15 experience in regulating the safe operation of nuclear power plants and the use
16 of nuclear materials.

17 The Waste Confidence Directorate, again, it was just recently
18 formed about two months ago. It was formed by the Commission that directed us
19 to reach out and get the most experienced experts in the National Environmental
20 Policy Act activities that exist in the agency. So we formed the Waste
21 Confidence Directorate in the Office of the Nuclear Material Safety and
22 Safeguards. We have developed a staffing plan and implemented that staffing
23 plan, and we are now fully staffed with a group of environmental experts,
24 communications experts, experts in rulemaking, and our legal staff that's
25 supporting the effort. We also have the Center for Nuclear Waste Regulatory

1 Analysis in San Antonio supporting our effort.

2 In terms of our mission, in the directorate again, this was identified
3 by the Commission and on the staff requirements memorandum. It's to develop
4 a generic environmental impact statement, and revise the Waste Confidence
5 Rule. The Commission also directed that we should provide for ample
6 opportunity for public involvement. And in that respect in terms of the
7 opportunities for public involvement, I would again note that we have a fairly
8 significant focused effort through outreach to parties that are interested in waste
9 confidence, make sure that your voices are heard. We have on the order of four
10 or five staff members that are devoted to communications. This includes people
11 that are familiar with communications, both internal and external to the NRC.
12 We're also supported by Dave McIntyre from our Office of Public Affairs, and by
13 staff in the Center for Nuclear Waste Regulatory Analysis. So we have a focus
14 communication team, which is to me a precedent to given what I've been
15 involved in, in the past, in terms of environmental impact statements, we rarely
16 have a focused communication team involved, but we do in this particular
17 instance. We're going to use multiple communication tools, and we've already
18 established that a website on the NRC home site that's focused specifically on
19 the waste confidence issue. Next slide.

20 So in summary, again, the Commission has made a determination
21 that licenses dependent on the Waste Confidence Decision will not be issued
22 until the analyses are done, and the issues that the court identified in the remand
23 are addressed. We've formed a Waste Confidence Directorate. We've looked
24 across the agency to gather the most knowledgeable experts on the NEPA
25 process, and we have them in the Directorate now, and working on the scoping

1 effort. We have a focused communication effort, and we're going to allow for
2 ample public participation in our effort over the next couple of years. So, Chip, I'll
3 turn it back to you.

4 CHIP CAMERON: Thank you, Keith. We're going to go to Tison
5 Campbell next, and if you need a handout, they're right over here on the shelf,
6 and there's also something called a feedback form on public meetings, that if you
7 want to give the NRC any comments on the public participation on this particular
8 meeting, please fill one of those out and leave it with us. Tison.

9 TISON CAMPBELL: Thanks, Chip. So I want to take a few
10 minutes and provide everybody with some background in history in waste
11 confidence, and hopefully a common framework for us to use today as we have
12 our discussion. So the first thing to understand is what waste confidence is. It
13 accomplishes two things. It's a generic environmental analysis that is part of the
14 Commission's NEPA assessment, National Environmental Policy Act
15 assessment, for reactor licensing. It is also a generic determination that fuel can
16 be stored safely, until a repository becomes available. Waste Confidence does
17 not however license any particular site or facility, and it does not allow for long
18 term storage of spent fuel at any site. Before that can occur the licensee would
19 have to come back to the NRC and there would be a separate opportunity for
20 public involvement prior to any post-license life storage of fuel. Next slide,
21 please.

22 This slide shows how waste confidence fits in to the Commission's
23 overall environmental analysis for reactor licensing. At the beginning of the slide,
24 you see a block that looks at the term of the license for a reactor. Following that
25 is the generic waste confidence analysis that looks at post-license life storage.

1 You'll see at the bottom a timeline. We pulled this out of the 2010 rule, just to
2 provide some context. It's here just for reference. We have not prejudged how
3 long this post-life license storage period will be, but we wanted to have this here
4 so everyone could get an idea of how this might factor into the overall
5 environmental analysis that the Commission does, and then following that, there
6 is a generic environmental analysis that looks at the environmental impacts
7 associated with disposal. So again, this is just designed to show where waste
8 confidence fits in to our overall environmental analysis. Next slide, please.

9 So some history of waste confidence, just so everybody
10 understands where we started and how we got here. The Waste Confidence
11 Rule was originally adopted by the Commission in 1984. This is in response
12 primarily to a 1979 court decision from the D.C. Court of Appeals that led the
13 Commission to look at the issues associated with waste confidence, and resulted
14 in the generic environmental and safety findings that you find in the 1984 rule.
15 Since then the rule has been updated a number of times, and most recently in
16 2010. In response to the 2010 rule, the Court of Appeals for the D.C. Circuit
17 vacated that rule on the waste confidence decision associated with it in 2012,
18 and on the next slide we have here a short summary of what the court found.

19 The court identified three problems with the Commission's
20 environmental analysis to support the 2010 Waste Confidence Rule. It found that
21 the analysis didn't evaluate the environmental effects of failing to secure
22 permanent disposal. It's this no-repository scenario you're going to hear about
23 later today. It also directed the Commission to provide an updated assessment
24 of spent fuel pool leaks and spent fuel pool fires, and Paul is going to talk a little
25 bit about how those are going to factor into our analysis going forward. But the

1 court did find that a generic environmental assessment and associated finding of
2 their significant impacts or a generic environmental impact statement was an
3 acceptable means to address the issues associated with waste confidence. And
4 in response, the Commission directed the staff and formed the directorate to
5 prepare an environmental impact statement, to look at these generic issues with
6 the possibility of issuing an updated Waste Confidence Rule.

7 So, finally, there are two things that I'd like you to remember as we
8 have our discussions today. The first is that waste confidence is just a small part
9 of the overall environmental analysis for reactor licensing. If you think back to
10 that timeline slide we looked at, remember that waste confidence to those
11 different steps that the Commission takes, and then the second thing is that
12 waste confidence does not license any facility or authorize storage after the
13 expiration of a facility's license. Before that can happen, there'll be another
14 opportunity for public participation and a separate action would have to be taken
15 by the Commission. Thank you. Chip?

16 CHIP CAMERON: Thank you. Thank you, Tison, and we'll go to
17 Paul Michalak now, who will talk about the approach to scoping.

18 PAUL MICHALAK: Thanks, Chip. As previously discussed, we are
19 developing an update to the Waste Confidence Rule. As part of that effort, we
20 will develop an environmental impact statement, which is also known by its
21 acronym EIS. The analysis and conclusions in the environmental impact
22 statement will inform our update to the Waste Confidence Rule. Presently we're
23 working on defining the scope of the environmental impact statement. Today's
24 meetings are part of the scoping process, and we're here to get your comments
25 and feedback.

1 Why develop an environmental impact statement? As previously
2 mentioned earlier this year, the Court of Appeals vacated and remanded the
3 2010 Waste Confidence Rule. Our mission is to revise the Waste Confidence
4 Rule, addressing the deficiencies identified by the court. The environmental
5 impact statement under development will contain our analyses and
6 environmental impacts of the updated Waste Confidence Rule. I think it is
7 important to note the Commission has determined that waste confidence should
8 be evaluated as an environmental impact statement due to public interest and
9 stakeholder interest. The environmental impact statement under development is
10 an integral component of the NRC's proposed action, which is to revise the waste
11 confidence decision and rule to account for the safety and environmental impacts
12 of continued spent fuel storage for some period beyond the license life for reactor
13 operations. We have developed several potential scenarios as part of our
14 internal scoping. The scenarios are based on different timelines for spent fuel
15 storage beyond the license life of reactor operation. Currently, we will evaluate
16 spent fuel storage until a repository is available. At the middle of the century
17 we'll evaluate storage until a repository is available until the end of the century,
18 and continued storage in the event a repository is not available.

19 The environmental impact statement under development will
20 contain a generic analyses of impacts. We will not focus on capturing site
21 specific technical issues. Our current strategy is to take affected environments,
22 for example air or water, and develop a set of general characteristics that
23 associated ranges to bound the problem and the conditions of spent fuel storage
24 throughout the United States. Our analyses will also contain an assessment of
25 spent fuel pool leaks and fires. We are at the beginning of this process and we

1 welcome your comments. Thanks, Chip.

2 CHIP CAMERON: Thank you. Thank you, Paul, and finally we're
3 going to go to Andy Imboden to talk about public participation. Andy.

4 ANDY IMBODEN: Thanks, Chip. My name is Andy Imboden. I'm
5 the branch chief for the Communications, Planning, and Rulemaking Branch, and
6 before we get to a question-and-answer part of the meeting, I'd like to share
7 NRC's plans for your opportunities to participate now and over the next two
8 years. On this slide is the schedule for the overall project. The first phase is
9 scoping, which we are now, then there will be a draft environmental impact
10 statement and proposed rule, and there'll be public comments on that, and then
11 the final environmental impact statement and rule. Next slide.

12 This describes the scoping period, the scoping period, submit
13 comments. It ends on January 2nd, 2013. It's a 70-day period during which at
14 any time written comments can be submitted through www.regulations.gov. We'll
15 have public meetings this afternoon and this evening, and then webinars on
16 December 5th and 6th. At all of those opportunities, the public comments we've
17 received orally will be transcribed and part of the official record. After the
18 scoping period closes, we'll collect all of the comments we get, no matter how
19 they were submitted, and the NRC will take those comments into consideration,
20 as we develop the draft environmental impact statement. In scoping we're
21 asking broad questions, what scenarios in environmental issues should we
22 consider, and one important question that we're asking is we will be holding
23 regional meetings in the draft stage, and we'd like your feedback on where those
24 meetings should be held. But we can't hold them everywhere, but if there are
25 some areas of particular interest, we'd like to know that.

1 At the conclusion of the scoping period, we'll prepare a summary of
2 the comments we received, including the significant issues that have been
3 identified, and we will make the NRC's consideration of those comments
4 publically available in a document probably in the spring. And since Friday, the --
5 well, go back to scoping just a minute. Thank you. Since Friday, we've had a --
6 received many comments about the scoping period, including letters and emails
7 that we've gotten. The staff is currently preparing a response for the chairman's
8 signature that you will be sending out on behalf of the Commission. So, I don't
9 want to presume what their decision is going to be, but one of the issues we've
10 heard about is about alternatives to the waste confidence rulemaking, and that's
11 exactly a fair question for the scoping period, what are the alternatives to the
12 proposed action, and what are the environmental impacts of those alternatives.

13 Okay, in the fall of 2013, we estimate the staff will publish a draft
14 environmental impact statement and proposed rule, and there will be another
15 opportunity for public comment at which point we'll be looking for feedback and
16 comments on the NRC's analysis and our preliminary conclusions. During that
17 time period, we will again have a long period where written comments can be
18 received and submitted, and we will be holding public meetings, webinars, and
19 regional meetings to get comments on the record.

20 The final stage of the project is the final environmental impact
21 statement and rule. We estimate that'll be in August of 2014, and in the final
22 environmental impact statement associated with that, we will have the comments
23 that we've received and the NRC's consideration of those comments. On this
24 next slide I've got details on -- if you could click it, thanks -- on how to submit
25 scoping comments, and I won't speak to the details on each one, but for those

1 participants who are just listening in on the phone, grab a pen. Please call the
2 NRC at 1-800-368-5642, and extension 492-3425, and we'll get you the details
3 that you need. The next slide is details on the December webinars, Wednesday,
4 December 5th, from 1:00 p.m. Eastern to 4:00 p.m. Eastern, and then the next
5 day, Thursday, December 6th, 9:00 p.m. Eastern to 12:00 a.m. Eastern.
6 Preregistration is required so that you could get an access password to
7 participate.

8 The agenda for the webinars will be the same agenda as today.
9 On my final slide, I've put some of the other ways that you can get information on
10 a project or progress, and how you can stay in touch with our activities. So thank
11 you for your consideration.

12 CHIP CAMERON: Thank you Andy, and thank all of you, and now
13 we have time for any questions that you might have on the presentations that you
14 just heard. And I would just ask you to come up to the microphone and introduce
15 yourself to us. Anybody have any questions on the staff presentations? Oh,
16 Kevin, yes, please come up, and introduce yourself.

17 KEVIN KAMPS: Hello, Kevin Kamps Beyond Nuclear. The
18 question is can you put your slide back up on how to submit comments. I
19 couldn't write that fast. E-comments, mail, and fax, and if you could leave it up
20 for a short time so I could write it down, that'd be great.

21 CHIP CAMERON: Yeah, we could do that, right, and for the people
22 in the room, there's copies over as you came in, and --

23 KEVIN KAMPS: They must have run out.

24 ANDY IMBODEN: Okay, but yeah, at www.regulations.gov, if you
25 type in and search for waste confidence, or search for the docket number, NRC-

1 2012-0246, the federal registered notice pops right up.

2 CHIP CAMERON: Usually Kevin's questions are harder to answer
3 than that one. Thank you, Kevin. Yes, sir.

4 DENNIS NELSON: My name is Dennis Nelson of SERV, Support
5 and Education for Radiation Victims, and I'd like to know what exactly is the
6 scope of this EIS? Is it only spent fuel or is it all of the materials that are
7 produced in the course of the nuclear cycle? Everything from waste piles, to mill
8 piles to, well, final disposal, but also the stuff like in West Valley which is not just
9 fuel rods, but it's fuel rods that have been processed, and then all the chemical
10 materials that are related to that? So, what is the scope of this EIS?

11 CHIP CAMERON: Great, thank you. Good question. Keith.

12 KEITH MCCONNELL: Yeah, it only addresses the spent fuel
13 storage after operating life. It does include another finding that relates to the
14 Commission's confidence on whether there's a disposition path for that spent fuel
15 ultimately in geologic disposal. So, it's only that part of the fuel cycle that relates
16 to spent fuel storage after operating life.

17 CHIP CAMERON: Does that answer your question, and you have
18 to -- here why don't you use that.

19 DENNIS NELSON: It doesn't really answer it satisfactorily. To me
20 it's a very small subset of the overall picture, but I understand that.

21 CHIP CAMERON: Okay, thank you. Other questions on what
22 waste confidence is, what the staff approach is, public participation,
23 opportunities? And while you're thinking about that here in the room, let's see if
24 anybody on the phone has a question. Do we have a question from someone?

25 KATHERINE FUCHS: I have a question. My name is Katherine

1 Fuchs, I'm with the Alliance for Nuclear Accountability, and I'm a little unclear on
2 the purpose of the three scenarios that you described as far as when there may
3 or may not be a permanent repository. Is this because we don't know what will
4 happen in the future. I'm just not certain how these three planning scenarios will
5 fit together in the final EIS process.

6 CHIP CAMERON: Paul.

7 PAUL MICHALAK: We've developed these scenarios during
8 internal scoping. The first scenario is a repository available at the middle of the
9 century. That scenario would assume transportation of spent fuel to the
10 repository beyond that approximately 2050 point, because it doesn't go there
11 instantaneously. So, the first scenario goes out about 100 years, approximately,
12 approximately 50 to half the storage facility, and then another 50 to really get all
13 the waste there, approximately. The second scenario assumes that a repository
14 wouldn't be available until the end of the century. Okay, so we're looking at
15 about 90 years out, a repository would be available, and then again another 40-
16 or 50-odd years to get all that waste or all that spent fuel to the repository. The
17 third scenario was part of the remand. We are going to evaluate no available
18 repository.

19 KATHERINE FUCHS: Would there be --

20 CHIP CAMERON: And we'll have to get you on the --

21 PAUL MICHALAK: The EIS will address the environmental impacts
22 associated with each scenario. So a scenario where middle of the century, end
23 of the century, no available storage. So we will be evaluating the environmental
24 impacts across resource areas, like air, and water, and transportation across
25 those three scenarios.

1 CHIP CAMERON: Okay, this is a follow-up.

2 PAUL MICHALAK: And this is our current approach. I mean it'll
3 evolve as part of the scoping, but so far this is where our internal scoping has
4 taken us.

5 KATHERINE FUCHS: Okay, I guess I'm just confused about the
6 final outcome. Would we then have three different waste confidence rules? Or
7 maybe I'm missing something.

8 CHIP CAMERON: Can you explain how the scenarios will be
9 treated in the typical environmental impact statement?

10 PAUL MICHALAK: Well, the first scenario is the preferred
11 scenario. Okay. The third scenario is the scenario required by the court, and the
12 second scenario was something that we've scoped internally, that we thought
13 was a reasonable approach to evaluating.

14 CHIP CAMERON: Would these be identified as alternatives
15 perhaps in the environmental impact statement, Keith?

16 KEITH MCCONNELL: We wouldn't call them alternatives. We're
17 very precise in our words to use scenarios because the no action alternative for
18 this particular activity is not to do the rulemaking. So here we're identifying within
19 the alternative where there is waste confidence decision three alternatives that
20 bound the range of uncertainty and whether a repository would be available or
21 not.

22 CHIP CAMERON: But it would be important. The directorate
23 wants to hear from people, not only on those scenarios, but on other scenarios
24 that might be suggested. Is that correct?

25 KEITH MCCONNELL: Absolutely.

1 CHIP CAMERON: Okay, and for those of you on the phone, if you
2 press star one, you'll get the operator's attention and she'll put you through to us
3 here in Rockville. Operator, is there anybody has a question on the phone?

4 OPERATOR: One moment, please. Susan Schapiro, your line is
5 open.

6 SUSAN SHAPIRO: Okay. Hello. Do I speak now?

7 CHIP CAMERON: And could you just repeat your name so that
8 everybody understands who you are?

9 SUSAN SHAPIRO: Susan Shapiro from Clearwater.

10 CHIP CAMERON: Okay. Go ahead, Susan.

11 SUSAN SHAPIRO: I'm wondering if there was -- I believe that you
12 want the comments for the scoping in by January 4th, I recall, and I am asking if
13 you can extend that, because that's right after the holiday season, and it would
14 be appreciated for the public if we could have until the end of the month, until the
15 end of January.

16 CHIP CAMERON: Andy?

17 ANDY IMBODEN: Yeah. Thank you all for that. The comment
18 period is due by January 2nd, not January 4th. That's a 70-day period, and if I
19 counted correctly, 49 days after today to submit comments. At any point during
20 that time you can submit it in writing, and we'll have public meetings and
21 webinars, other opportunities to provide comments, and that's for scoping. After
22 the draft environmental impact statement is prepared and published, we'll have
23 another period for public comment at that time. So those are the timeframes.

24 CHIP CAMERON: And I think Susan wanted to know if there was
25 any possibility of the comment period being extended.

1 ANDY IMBODEN: Right now, the staff believes that that's an
2 appropriate length of time. It's in line with what other projects have done, and the
3 Commission will weigh in on that, though. So, if they tell us to extend it, then we
4 will extend it.

5 SUSAN SHAPIRO: I'm requesting it be extended because we are
6 the public, and that is our holiday period, and it's right at the end of obviously a
7 holiday period, the day after New Years, and Christmas. So at least if you could
8 extend it for at least a minimum of an additional two weeks, that would be fair to
9 the public.

10 ANDY IMBODEN: Okay, and thanks, Susan. You stated it as a
11 question, but I think it's fair to treat that as a comment that the NRC will consider,
12 and get back to everybody about whether they're going to extend the comment
13 period. Operator, do we have someone else?

14 OPERATOR: Marvin Lewis, your line is open.

15 CHIP CAMERON: Oh, okay.

16 MARVIN LEWIS: Hi, my name is Marvin Lewis. Are we still
17 connected?

18 CHIP CAMERON: Yes, we're eagerly awaiting your question.

19 MARVIN LEWIS: Okay, thank you. Look, I'm wondering how
20 divorced, and how limited [unintelligible]. For instance, all radioactive waste and
21 piles or whatever are delivering radioactivity to the biosphere. Eventually, that
22 radioactivity will get to the point where the DNA can't handle it and we'll stop
23 reproducing or stop evolving, and I just wonder is something like that allowed into
24 the scoping.

25 CHIP CAMERON: Does the panel understand the concern and the

1 question? Keith.

2 KEITH MCCONNELL: I believe so. I think the questioner was
3 commenting on the potential health effects from radioactive material, and
4 certainly any comment that relates to that, particularly with respect to spent fuel,
5 and that's the focus of our activity here is the spent fuel, not high-level waste. To
6 the extent that it relates to that, I think it's a valid comment.

7 CHIP CAMERON: Okay, thank you.

8 MARVIN LEWIS: Thank you.

9 CHIP CAMERON: Thank you very much. Operator, do we have
10 anybody else?

11 OPERATOR: There is no one else in the queue at this time.

12 CHIP CAMERON: What did she say?

13 MALE SPEAKER: No one else in the queue.

14 CHIP CAMERON: Oh, okay. Thank you, Operator. Anybody else
15 in the audience? Arjun, could you please come down to the microphone?

16 ARJUN MAKHIJANI: Thank you. I'm Arjun Makhijani from the
17 Institute for Energy and Environmental Research. Are you going to use the
18 Yucca Mountain EIS, do you envision using it in any of these scenarios? If so,
19 which one and to what extent?

20 CHIP CAMERON: Thank you, Arjun. Paul?

21 PAUL MICHALAK: We're going to use -- Arjun, we'll use all
22 available information in developing this EIS and that'll include existing information
23 that we have on spent fuel pools, ISFSIs, spent cask storage areas, and where
24 applicable and relevant we will use some of the DOE analyses for Yucca
25 Mountain, but where it's applicable and relevant.

1 ARJUN MAKHIJANI: Could I request that we be provided as much
2 before the end of the comment period of what portions, because these
3 documents are absolutely immense and these scenarios are difficult. And in
4 making comments it would be very, very helpful to know which parts of the Yucca
5 Mountain EIS you're going to use for which scenarios as much before January 2,
6 if possible. Will that be possible?

7 PAUL MICHALAK: Well, we'll take that under consideration, but
8 keep in mind we're still early in the process ourselves. So we haven't actually
9 written any of these sections yet and we're doing internal scoping ourselves.

10 CHIP CAMERON: Let's hear from Keith, Arjun, then we'll go back
11 to you, Keith?

12 KEITH MCCONNELL: One of the activities we plan on having
13 during the period of the end of scoping and the creation of the draft is to have
14 webinars or some communication to where we can update people on the status
15 of various activities. And to the extent we know at that time we can potentially
16 pass that information on to you. Again, it won't be in the form -- we won't be able
17 to take -- there can't be public comments on that because we won't be
18 transcribing those meetings.

19 ARJUN MAKHIJANI: I understand that, but my concern is not
20 about what happens between scoping and the draft. My concern is what
21 happens between now and those of us who seek to make, you know, sensible,
22 intelligent, technically competent, and comprehensive comments. I can't see
23 how you can expect us, without having a proposed alternative, you know,
24 preferred scenario as you're required to do in our estimation by your own rules
25 and without knowing what parts of these voluminous documents you're actually

1 going to rely on. How are we supposed to make technical comments before
2 January 2, celebrate Thanksgiving, Christmas, and New Years; and, you know,
3 as Susan Shapiro said, and still provide, you know, we all appreciate the notice
4 you all put out which said, "The public's comments can provide great technical
5 value to the process," at least as I read it. I was very pleased to read that. And
6 we in the public try to be very helpful about these things, at least I do. I really
7 think you ought to extend this January 2 deadline to the extent possible for you to
8 provide us with this information at least three weeks before the deadline. So if
9 you can't give it three weeks before January 2, then extend the deadline so you
10 have a deadline that we have the information we need three weeks before the
11 deadline. That's what I would request.

12 CHIP CAMERON: Okay, thank you, Arjun.

13 ARJUN MAKHIJANI: Thank you.

14 CHIP CAMERON: I think it's clear what Arjun's request is.

15 Anybody else? Yes, sir, we've seen you before. Come on up and please
16 introduce yourself again.

17 DENNIS NELSON: Dennis Nelson, SERV. I need to know what
18 type of fuel rods and fuel assemblies you're going to deal with. You say that you
19 only deal with fuel. You're not dealing with any of the other aspects of the fuel
20 cycle, so it's just the spent fuel rods, but there are different kinds of spent fuel
21 rods. You know different reactors have different compositions. Are these oxide,
22 uranium oxide fuels, clad with zirconium, or are they uranium metal fuels? I don't
23 know what these are and it makes a huge difference. For example, if a spent
24 fuel rod pool were to dry out like happened in Fukushima, or almost happened in
25 Fukushima, these things would actually burn. You know the zirconium would

1 burn first and then if it's uranium metal, the uranium would burn as soon as it
2 gets in contact with air. If it's uranium oxide fuel, that mitigates this. It's a lot less
3 likely to cause widespread contamination. I need to know what your plans are to
4 describe the different kinds of fuel that are being stored.

5 CHIP CAMERON: Including, for example high burn-up fuel.

6 DENNIS NELSON: Yeah, even mixed oxide fuels, if there are such
7 a thing, with plutonium in it. So it makes a big difference how you scope this
8 thing and how you do an environmental impact depending on what kind of fuel
9 you're storing and where you're storing it.

10 CHIP CAMERON: Can we -- and obviously that is a good
11 comment too, but do we have an idea now about what the different types of
12 spent fuel we would be looking at? Keith, do you want to take that one?

13 KEITH MCCONNELL: Well, the details would be in the EIS, but to
14 the extent that the fuel is used in a facility licensed by the NRC, that would be
15 part of what's considered in this EIS. So that's what bounds our analysis.

16 CHIP CAMERON: Okay, thank you. Operator, anybody else on
17 the phone?

18 OPERATOR: Yes, next. Louis Zeller, your line is open.

19 LOUIS ZELLER: Hello. Yes, this is Lou Zeller; I'm the executive
20 director of the Blue Ridge Environmental Defense League. I have a question
21 about the timing and the two-year timeline? How does the directorate square,
22 the two-year deadline, for the new rule with the NRC Office of Nuclear Safety and
23 Safeguards timeline of eight years, which is an assessment done just a year ago,
24 October 4, 2011?

25 CHIP CAMERON: Thanks, Lou. Keith?

1 KEITH MCCONNELL: It's a function of the resources that are
2 allocated to the effort and that funding that's allocated to the effort. And the effort
3 that you mentioned that NMSS was going to undertake, the concept was that
4 there would be probably one or two project managers supported by the Center
5 for Nuclear Waste Regulatory Analyses. In this particular effort that we have
6 underway now we have 10 times the staff devoted to the effort. In the sense that
7 we have on the order of 20 people in the directory that are focused on this one
8 specific issue and this one specific activity, so it's a function of the level of
9 resources that are applied to it. But I would note that just because we have more
10 resources devoted to it, doesn't mean that we aren't going to allow ample time for
11 public participation. Part of the staffing is directed to facilitate the public's
12 participation in this effort.

13 CHIP CAMERON: Thank you, Lou. Operator, anybody else?
14 Okay, we have time for one more question from the audience and then we're
15 going to take a break for 10 minutes and then we're going to come back and go
16 to public comment.

17 SHERWIN TURK: Good afternoon. My name is Sherwin Turk; I
18 work for the NRC staff. I think it would be helpful if you could explain the
19 difference between what you're looking for now in the comments on scoping
20 versus what you'd be looking for in comments on the draft EIS because it seems
21 to me that some of the questions have been raising concerns that don't really go
22 to scoping issues, but rather go to the merits. So if I'm not mistaken, normally in
23 a scoping process, you'd be looking for the public to identify the issues that they
24 think they need you to look at in the EIS. For that reason perhaps the comment
25 from Clearwater about needing more time to submit the comments on scoping

1 may be confusing what you're looking for now as opposed to what you're looking
2 for in terms of comments on the merits of the ultimate review that you do. So
3 perhaps you could explain the difference between those two things that you'll be
4 looking for at different steps in the process.

5 CHIP CAMERON: Okay, thank you. Who would do that, Paul?

6 PAUL MICHALAK: I see the current process as being one that will
7 impact our approach to analyzing the problem. We're trying to scope out the
8 problem. We've done some internal scoping. We have a general approach that
9 I've pitched, in a sense, with scenarios and affected areas where we'll try to
10 bound the impacts. But what we're looking for are comments that will impact our
11 approach to this. The next time you'll see us will be -- we'll have a product in
12 hand. We'll have an environmental impact statement and at which point then you
13 would have comments on -- and it would be a draft as well, I mean it wouldn't be
14 a final. And that's the next set of meetings we have right now scheduled out in
15 September of 2013, currently. And they would actually comment on our work
16 product.

17 CHIP CAMERON: And just as an example, regardless of what the
18 response is to Arjun's request for documents, it would be perfectly appropriate for
19 someone to make a scoping comment that this particular portion of the
20 Department of Energy Environmental Statement on Yucca Mountain should not
21 be considered as data that's going to be used in a draft EIS. So comments like
22 that are acceptable.

23 PAUL MICHALAK: It would be because that is now commenting on
24 our approach to the problem.

25 CHIP CAMERON: Right.

1 PAUL MICHALAK: Because we're right at the initial step.

2 CHIP CAMERON: Right.

3 PAUL MICHALAK: I mean we're just starting.

4 CHIP CAMERON: Okay, I just wanted to give people an idea about
5 what is within scope. Final question? Okay, we're going to take a break until 10
6 minutes after 2:00 and then we'll start with public comment. And thank you for
7 your attention and for the questions and obviously, the people on the phone too,
8 thank you.

9 [break]

10 CHIP CAMERON: Okay, welcome back everybody. We're going
11 to be taking public comments now, audience and phones. But before we do that
12 one public service announcement, I guess, is that we've heard from some people
13 that they're having trouble with the firewall settings in the particular place that
14 they're in and might have trouble getting into the webcast and if you check your
15 firewall settings, be sure that you have the free Microsoft Silverlight program
16 installed. So if anybody out there is having trouble, Microsoft Silverlight is the
17 answer, at least to that particular problem. Yeah, Keith? You wanted -- is this
18 that you want to provide more information on the scoping versus draft EIS? And
19 we do have one question that we forgot to read that came in from Mr. Ziegler and
20 after Keith is done, we'll put that question to the staff for an answer and then we'll
21 go to public comment.

22 KEITH MCCONNELL: Thanks, Chip. We do want to provide a little
23 bit more clarification on what would be available in terms of information in the
24 scoping period versus what would be available during the draft EIS stage. And in
25 essence what the scoping period is designed to do is to help us, using public

1 input, to define the range of activities and the approach that we're going to take
2 in this generic environmental impact statement. We're not likely at that time, at
3 the end of scoping, to have information like I think Mr. Makhijani was asking for.
4 That would be in the draft EIS, but what we would want to hear right now is if you
5 have particular reservations about various parts of DOE's EIS for Yucca
6 Mountain. That's the type of comment we would like to hear in scoping. So
7 thank you for your comment.

8 CHIP CAMERON: Okay, thank you. Thank you very much, Keith.
9 The question from Mr. [Joe] Ziegler, who I think is in Nevada, what are the
10 implications to NRC licensing activities if the Commission is unable to make a
11 reasonable determination that spent nuclear fuel has an ultimate path for
12 disposal? Unless this question is addressed and supported by facts, the EIS will
13 be merely a declaration that confidence exists, something that has worked out so
14 well in the past. And I'm not sure. I don't know how he got that facetiousness, if
15 possible, into the question, but Tison, do you understand the question?

16 TISON CAMPBELL: Yes, Chip, I think I can answer the question.
17 If the Commission determines that there is no or that it can no longer have
18 confidence in an ultimate path for disposal or if the staff makes that determination
19 in looking at this EIS, they would then have to go back to the Commission and
20 the Commission would have to evaluate that conclusion and decide how to go
21 forward. But I would note that historically, the Commission has had confidence in
22 the technical feasibility of a repository and we have not yet found anything that
23 would cause us to question that approach. So unless something like that were to
24 occur, I don't think we would encounter that eventuality.

25 CHIP CAMERON: Okay, thank you very much. I'm going to give a

1 few names in sequence so that you'll know where you are in the queue for
2 comments. And we're going to start with Ron Johnson, who is on the tribal
3 council of the Prairie Island Indian community, then if John Sipos is here from the
4 State of New York, we'll go to John. We're then going to go to Arjun Makhijani
5 and then to Ellen Ginsberg. So those are our first four. And Ron, if I could have
6 you come up to the microphone, please?

7 RON JOHNSON: Good afternoon. Like Chip said, my name is
8 Ron Johnson; I'm the secretary of the Prairie Island Indian Tribal Council. I'd like
9 to thank this opportunity to provide preliminary comments regarding the scope of
10 the proposed waste confidence environmental impact statement and we plan to
11 submit detailed written comments by the January 2nd, 2013 deadline, if that
12 holds true. The Prairie Island community is among the closest communities in
13 the nation to a nuclear power plant. Its onsite spent fuel storage -- the Prairie
14 Island Nuclear power Generating Plant is an independent spent fuel storage
15 installation. They are located adjacent to our ancestral lands of the
16 Mdewakanton Dakota community. And, you know, it's located about 600 yards
17 from the reservation, from tribal members' homes, our churches, our community
18 center, and all our government headquarters and our gaming enterprise, which
19 as you know we have our business located there. And there's other community
20 and facilities that are also located within one mile of the ISFSI.

21 The Prairie Island ISFSI is currently licensed by NRC to store up to
22 48 casks currently now. Northern States Power Company, doing business as
23 Xcel Energy is currently seeking to renew its ISFSI license for an additional 40
24 years. We are a cooperating agency for the purpose of developing an
25 environmental assessment for the ISFSI license renewal. The EA could be

1 helpful in informing the waste confidence EIS. Assuming that the two reactors at
2 Prairie Island cease operation in 2034 at the end of their extended license, there
3 would be enough nuclear waste to store up 98 casks on the ISFSI.

4 The ISFSI at Prairie Island was initially proposed in the early 1990s
5 to be a temporary measure to keep the plant running and the plant personnel
6 working until Yucca Mountain could be opened. Unfortunately, the concerns we
7 expressed way back then have become the reality. The so-called interim or
8 temporary solution looks more permanent by the day. We are here today to
9 discuss the scope of the EIS for an update to the NRC's waste confidence
10 decision and temporary storage rule. While we are pleased that the NRC will be
11 evaluating the environmental impacts onsite nuclear waste storage for periods of
12 times far longer than they originally anticipated, we remain concerned that this
13 will be just another update that kicks the can down the road for a few decades
14 further, without any uncertainty or assurance that the waste will ever leave. We
15 have lost confidence in the waste confidence decision.

16 The U.S. Court of Appeals for the District of Columbia -- excuse me
17 -- struck down the waste confidence decision finding too that reasonable
18 assurance exists that sufficient geologic repository -- excuse me -- capacity will
19 be available for disposal of high-level waste and spent nuclear fuel when
20 necessary finding for. That reasonable assurance exists that spent fuel can be
21 safely stored at plants for at least 60 years beyond a licensed life of the plant
22 without significant environmental impacts in a combination of spent fuel pool
23 storage and either onsite or offsite dry cask storage systems. With respect to
24 finding two, in the absence of a repository or even proposed site identified, now
25 30 years after the Nuclear Waste Policy Act was enacted, we don't believe there

1 can be reasonable assurance that sufficient geologic repository -- sorry,
2 struggling on the word -- capacity will ever be available. And with respect to filing
3 four remain highly skeptical that the reasonable assurances can exist for a safe,
4 onsite storage for multiple decades, longer than originally intended, particularly
5 based on a generic non-site-specific analysis. With respect to the scope of EIS,
6 we have a few questions for guidance. It's not clear which NRC guidance
7 documents will be used to guide the development of the EIS. Knowing whether
8 NRC will use NUREG-1748 or some other guidance document will help us and
9 others develop useful scoping comments.

10 Site specific impacts: The Federal Register Notice states that the
11 analysis of environmental impacts for this effort would be principally intended to
12 provide input to decision making for updating the waste confidence decision and
13 rule, and would not involve the analysis of site-specific issues. The question,
14 how the NRC could conduct an environmental justice analysis generically and
15 environmental justice issues and concerns are by their very nature site specific.
16 Since the court concluded that the NRC failed to properly examine the risk of
17 spent fuel pool leaks, we fail to see how the environmental impacts of spent fuel -
18 - yeah, spent fuel pool leaks can be evaluated generically as each spent fuel pool
19 is sited in a unique environment. And thus the hazardousness and risks of leaks
20 are site specific.

21 Tribal consultation: The Federal Register Notice does not mention
22 how NRC plans to consult with any impacted federally recognized tribes.
23 Federally recognized Indian tribes have been in expectation that they will be
24 consulted on a government-to-government basis. Tribes are not public and
25 should not be treated as such. Executive Order 13175 Constitution and

1 Coordination with the Indian Tribal Government states, "United States has a
2 unique legal relationship with Indian Tribal Governments. The United States
3 recognize the right of the Indian Tribes to self-government and tribal sovereignty.
4 Each agency shall have the accountable process to ensure meaningful and
5 timely input by tribal officials in the development of regulatory policies which
6 affect tribes." Simply put, the NRC has an obligation to consult with impacted
7 federally recognized Indian tribes on a government-to-government basis before
8 decisions are made.

9 Timeframe of the proposed action: In previous NRC environmental
10 impact statements or environmental assessments in support of licensing action, a
11 timeframe is provided. For instance, the Prairie Island ISFSI is currently licensed
12 for 20 years. In a 20-year period and an EA developed by the NRC in support of
13 that decision evaluated environmental impacts over the 20-year period. It's not
14 clear what timeframe the NRC intends to use for the waste confidence EIS.
15 Unfortunately, time periods in the past, waste confidence decisions have been a
16 moving target, first 30 years and then 60 years. We would like to see the scope
17 include specific timeframe. It is our view that this moving target has allowed the
18 federal government to abandon Yucca Mountain and start a process new --
19 anew, excuse me.

20 According to the Federal Register Notice, possible scenarios to be
21 analyzed in the EIS include temporary spent fuel storage after cessation of the
22 reactor operation until a repository is made available in either the middle of the
23 century or by the end of the century. In storage of spent fuel, if no repository is
24 made, is available by the end of the century. Our preference would to be have
25 the EIS bounded by the mid-century time period; having said that, however, we

1 believe that the D.C. Circuit decision mandates that the alternative analysis must
2 include a robust analysis of the environmental impacts if no spent fuel repository
3 is ever available. In other words, NRC must analyze potential environmental
4 impacts of indefinite onsite storages. We continue to believe that such analysis
5 must be done on a site-specific basis. Based on our experience living in the
6 shadow of the plant and its spent fuel storage, we will continue to urge this
7 Commission and the United States government to honor the promise to remove
8 nuclear waste to a safe, secure, and permanent repository. No other community
9 in this country should have to live in fear of nuclear power or nuclear waste the
10 way our community does. Thank you and we will provide written comments.

11 CHIP CAMERON: Thank you. Thank you very much, Ron. Thank
12 you. Is John -- is it Sipos? John from the State of New York, please.

13 JOHN SIPOS: Good afternoon. My name is John Sipos; I'm an
14 assistant attorney general from the State of New York and I'm accompanied
15 today with my colleague, Adam Solomon. And at the outset, I'd like to express
16 our thanks for being allowed to appear here today before the Waste Confidence
17 Directorate. And also I'd like to acknowledge Mr. Sherwin Turk, who I've been
18 involved with on the other side of the aisle in a licensing proceeding and Mr.
19 Andrew Stuyvenberg, also of NRC staff. And Jonathan Rund of Morgan Lewis
20 who represents Entergy, who's also involved in the proceeding.

21 As some of you may know I'm the lead attorney for the state on the
22 license renewal for the Indian Point Unit 2 and Unit 3 facilities located in
23 Westchester County, New York. And it is through that prism or it's through that
24 proceeding that's providing a prism and some information as the state is
25 proceeding in the waste confidence rulemaking. The state did submit comments

1 in the previous rulemaking and along with the Prairie Island native Indian
2 community and also the states of New Jersey, Connecticut, and Vermont
3 challenged the previous rulemaking. I had prepared a PowerPoint, which
4 unfortunately I understand cannot be accepted today but I will leave that or send
5 that via email so that it could be included in the record. And again, we do
6 welcome the opportunity to actually engage in a dialogue with the NRC. It is
7 something the state believes is important and wishes to fully participate in.

8 The focus of my comments today on today's scoping analysis is the
9 site-specific impacts of high density spent fuel pools. The State of New York
10 strongly urges that the NRC staff and the commissioners as they go through this
11 rule, make provision so that interested governmental entities, states, host
12 communities, citizens, can actually raise issues of concern about site-specific
13 environment impacts related to onsite storage of spent nuclear fuel and amongst
14 those options the high-density storage in spent fuel pools. And I would just like
15 to note and I know this might be not ideal, but perhaps I could hold it up for the
16 camera and I'm taking this from a July 28 presentation to the commissioners
17 here, about level three PRAs. And it's possibly a chart I've been -- and again I
18 apologize for folks who can't see it -- but this is a chart prepared by staff about
19 the review that is done. What is over here on your left in blue is the review --
20 approximates the review of NUREG-1150 back in 1990. And the other gray and
21 yellow areas are areas that have not been reviewed, including spent fuel
22 handling, spent fuel storage, and dry cask storage. And I do know my time is
23 brief, but we really do welcome this opportunity.

24 Around the same time, in another SECY document, SECY 11 --
25 excuse me, SECY-11-0089, there was a statement consideration of other site

1 radiological sources to be complete estimation of total site accident risk should
2 also include an assessment of the risk from accidents involving other site
3 radiological sources to include spent nuclear fuel. And so we think there is
4 actually a basis in fact for these states' request here. And just to finish off the
5 point about the states' concern about spent nuclear fuel and storage in the high
6 density storage tanks, this is an excerpt from an internal NRC communication
7 made public on ADAMS about six months ago, shortly after Fukushima and it
8 details the priorities that were facing NRC at the time. It's from 6:00 p.m. Eastern
9 Daylight Time on March 16, 2011. And obviously Fukushima was a very
10 unfortunate, very terrible accident, very severe accident, and there were many
11 things going on at the site. But at that day at that time, even though there were
12 other very important, very critical things going on, the number one priority
13 according to this document was Unit 4 was the number one priority, core
14 offloaded to spent fuel secondary containment destroyed, walls of SFP have
15 collapsed, no SFP cooling is possible at this time. Tepco requests
16 recommendations. And there were other similar statements in that early morning
17 briefing.

18 So, again, the state would encourage the NRC and we have
19 listened carefully and we've read the PowerPoints and to your comments today,
20 but to provide, to make provision for an analysis of site-specific impacts for
21 storage of spent fuel and we believe at the Indian Point facilities in Westchester
22 County. It's a statement in real estate, location, location, location. These are just
23 a few maps and diagrams just to indicate the location of Indian Point and the
24 potential of risks that could befall the residents of the state located right here,
25 approximately 24 miles north of the New York City border. This is sort of a

1 shaded topography map in the Hudson River Valley. The statistically
2 predominant wind is from the north, i.e., going south, i.e., going towards New
3 York City. This is a much larger map that identifies public reservoirs within 50
4 miles of Indian Point. And those reservoirs -- and I'm happy to make a copy of
5 this and I realize it's very hard to see from where you're sitting -- but those
6 reservoirs include the New York City public reservoir, which provides drinking
7 water for the residents of New York. It is an unfiltered public drinking water
8 supply. And there are many other drinking water supplies in the area as well.

9 So, again, we're trying to emphasize the site-specific nature and
10 there was a recent tour of the facility back in May with judges from the Atomic
11 Safety and Licensing Board. And that time, Entergy made clear at the time of the
12 visit, so this is May 8, 2012, that all of the spent fuel generated since the start of
13 commercial operations for Indian Point Unit 3 remained in the Indian Point Unit 3
14 fuel pool as of that day. So that's roughly 37 years by my count at that time that
15 the licensee had no current plans to construct additional dry cask storage facility.
16 There is already a dry cask storage facility, but no additional dry cask storage
17 facility. And at the end of operation under a scenario in which there was a 20
18 year license extension, that the licensee Entergy estimated that the existing dry
19 cask storage pad would be filled to capacity as would the Unit 2 spent fuel pool
20 as would the Unit 3 spent fuel pool. I'd like to turn just briefly to alternatives and
21 mitigation.

22 CHIP CAMERON: Yeah, and John if you could try to wrap up for
23 us.

24 JOHN SIPOS: Chip, I'm working as fast as I can.

25 CHIP CAMERON: I like the way you've done your PowerPoint

1 presentation.

2 JOHN SIPOS: It's sort of low tech, isn't it.

3 CHIP CAMERON: It usually is, but if you could just –

4 JOHN SIPOS: The state would strongly recommend that the rule,
5 the rulemaking, the analysis, provide for site-specific alternatives and site-
6 specific mitigation. And along those lines much akin or like the severe accident
7 mitigation alternatives analysis that is provided under part – Title 10 CFR Section
8 51.23, which our understanding is right now, looks only at reactor issues and not
9 at spent fuel pool issues. We think that is very important that those alternatives -
10 - those mitigation analyses and alternatives be examined and be permitted to be
11 examined under the rulemaking that is being considered.

12 Those are my comments for now and if other things occur to me, I
13 know that there's many people who wish to speak and I thank you for your time.

14 CHIP CAMERON: Thank you, John. And I think it would be very
15 helpful for the staff for you to send them the PowerPoints electronically too, if you
16 could.

17 JOHN SIPOS: Yes. I'd be happy to do that. I have it here with me
18 on a stick and I'll get it to you any way I can.

19 CHIP CAMERON: Okay. Thank you, John. And I've just reminded
20 with the tribal government and state government presentations that one of the
21 specific issues that the staff would look for comment on is locations of the
22 regional meetings I think was on the slide. And also you might think about
23 formats for those meetings, too. Should it be town hall format? Is it possible --
24 profitable to do a panel discussion somewhere, something like that. So we're
25 going to go to Arjun. Arjun? This is Arjun Makhijani.

1 ARJUN MAKHIJANI: Sorry for the clumsy format. I forgot to print
2 out my comments here. So I'm going just use my computer. Thanks first of all
3 for understanding the spirit of my Yucca Mountain question. And I think NRC
4 hasn't ruled on the validity of DOE's licensing work and the EIS. That process
5 was suspended. We don't know how to NRC would have regarded the work of
6 the DOE in its EIS or any other part of the DOE's work because we're going to
7 have an official reading from the NRC that's conclusive about Yucca Mountain.
8 So I don't – so that's quite different from relying on EIS and record of decision
9 that the NRC itself has done where you have a Commission's opinion. I would
10 suggest that it would not be legitimate for you to rely on the Yucca Mountain EIS
11 for anything. Of course we can read anything. We can be informed by anything.
12 But to fail to do – so my first sort of main comment here just, you know, hearing
13 your response to my question in a preliminary way and I'll probably say more
14 about it in my written comments later, but I think that it would not be legitimate.
15 And I play a lawyer on TV sometimes so it may be not even legally correct to rely
16 on the DOE EIS in the sense that you would omit going to the beginning on every
17 issue and doing your own analysis. You know I write footnotes. There are lots of
18 things I don't agree with because I'm trying to say what's in that document,
19 certainly you can do that. But I don't think you're allowed to agree with the DOE
20 EIS without doing your own complete full and transparent analysis of it, including
21 the no-action alternative or any other alternative that might be considered. That's
22 my sort of initial reaction.

23 I think I heard Mr. Campbell say that NRC has always had
24 confidence there will be a repository and still has confidence that there will be a
25 repository. I would suggest that that's not at all in the spirit of the court's vacating

1 the waste confidence decision. The court explicitly said that you can't just
2 assume that, you know, Finland may be doing one, but you can't say Finland is
3 doing one so we're confident we can have one. That's simply not legitimate. So
4 you can't construct a path to a waste confident decision by hanging onto the
5 idea. It's important for the core staff that are going to do this EIS to let that go
6 objectively, really, hard as it may be. It's been very hard for me in my
7 professional life to become reconciled with the idea even though I'm not a fan of
8 making plutonium just to boil water, which is what reactors do. But we still need
9 a repository, which I'm not a fan of a repository, but I consider it the least bad
10 solution to what we -- the path to a repository is very difficult and may be
11 impossible and I recognize that, too. And I think it will be good if the staff were
12 on the same place. I actually was a little surprised by the statement that nothing
13 had happened to loosen the confidence despite what it says -- at least how I read
14 the court decision.

15 All right, the notice says it's the intent of NEPA to have federal
16 agencies consider environment issues. Well NEPA requires a lot more than
17 considering environment issues. And, you know, it requires analysis of specific
18 alternatives, no-action alternatives. I was really glad to hear that you have a no-
19 action alternative. So I was very reassured by that, that you are going to
20 consider what happens if there's no waste confidence decision, which means,
21 you know, for example, that you won't license any more reactors or re-license
22 any more reactors. At least that's how I would read that.

23 All right. So you propose to do a generic analysis. The court has
24 left you the room for that but it's not a playing field without boundaries. The court
25 actually set some boundaries about the breadth and depth to which you have to

1 consider the environment impact. I would suggest that you cannot properly
2 conduct an EIS generically alone. Some things can be done generically, you
3 know, what are the impacts of transferring casks in some scenarios where you
4 might have a local accident that's on site. You can bound that and say what's
5 the worst case situation, maybe Prairie Island, you know, something where you
6 have a bunch of stuff wind up in the river. But I would say that the offsite impact
7 from severe accidents, severe terrorist attacks, would be qualitatively different at
8 different sites.

9 So I'll give you a couple of examples. Prairie Island, of course,
10 you've got the whole Mississippi River downstream. So you have a bunch of
11 riverine reactors that are very important that have their own very particular
12 ecosystems. You've got Calvert Cliffs on the Chesapeake Bay, which is one of
13 the most precious, unique ecosystems in the United States, not to speak of its
14 economic value. You've got a plant in Nebraska where if you had a problem you
15 would have a compromise a huge -- or Iowa, a huge part of the economic
16 agricultural system in this country. And of course you've got Indian Point, which
17 should also be spoken about where simply the human, the density of population
18 and property. And we are seeing from Hurricane Sandy, I think if you had a
19 severe accident with a spent fuel pool fire, Hurricane Sandy damages would look
20 very small. In my opinion. Not only my opinion, they've published analyses to
21 that effect. So I think that at least you should consider groupings of reactors.
22 But in some respects because if you look at Iowa or Kansas or Nebraska, all of
23 these environments are very unique to the economy and ecology of this country
24 so, or if you look at the reactors in California and how Diablo Canyon might affect
25 the unique ecology of Monterey Bay, you're going to have a very, very hard time,

1 I think, fulfilling the court's mandate in spirit at least. You know, we all read it
2 differently but in my view, if I might since this is the time for the public to give you
3 advice so it's not gratuitous in that respect.

4 You know, Yucca Mountain fell apart because people thought we're
5 going to rush to this and we're going to do it quickly. And there were political
6 decisions made, let's do it fast and we'll get there by 1998. And we're farther
7 behind today than we were in 1986, I think, because we don't happen to have a
8 backdoor repository. We don't know how we're going to get there. We have no
9 process. There's a Blue Ribbon Commission report, which I think has some very
10 important things in it and we all respect what the Commission did in many ways.
11 But I think this two-year process is not sensible because the Commission staff
12 itself set some very critical things to be researched by 2017, '18, '19, to examine
13 a 200- to 300-year scenario. I think you need to add a 200- to 300-year scenario
14 to your list. I'll finish quickly. My last point, probably.

15 Because of a very important technical fact, the radiation barrier to
16 spent fuel is a couple hundred years, 200, 300 years by the time your cesium-
17 137 is pretty much gone. And then, unlike today, and for a couple a hundred
18 years, where theft is not possible, you don't, at least not -- very remotely
19 possible, theft of spent fuel, extracting the plutonium, using it to create, you
20 know, havoc in terms of terrorist radiation bombs, all that becomes much more in
21 the realm of what you can imagine than what you could do with spent fuel today.
22 You can't steal spent fuel today because of the radiation barrier. Of course
23 there's the physical mass of the stuff. But that's not the main barrier. The
24 radiation barrier is the main barrier to preventing mischief from spent fuel,
25 whether it's bombs or radiation mischief.

1 I think it's essential that you do two things that you have to consider
2 200- to 300-year scenario where the radiation barrier is weak and what could
3 happen besides the, you know, no repository. And the consequences of having
4 a repository after the radiation barrier is gone. And secondly, there's a technical
5 set of – there's a certain amount of technical knowledge that you don't have
6 that's specified in one of your own documents whose name I don't remember but
7 I'll provide it to you in my written comments, where a lot of technical work about
8 casks, about the durability of casks, about corrosion, about inter-cask transfer,
9 about, you know, how you're going to maintain the spent fuel pools for a couple
10 of hundred years. All of those issues need physical laboratory technical work to
11 be done before you can evaluate those environmental impacts. I don't see even
12 if you put everybody on the NRC staff into doing this EIS, you simply don't have
13 the information to be able to complete this EIS properly because there's a lot of
14 technical information that the NRC itself has said is not --

15 CHIP CAMERON: Arjun, could you wrap up for us.

16 ARJUN MAKHIJANI: I'm done. Thank you.

17 CHIP CAMERON: Okay. Thank you very much for those
18 comments. And we're going to go to Ellen Ginsberg, who is the general counsel
19 of the Nuclear Energy Institute. Ellen?

20 ELLEN GINSBERG: Thanks Chip. For those of you I've not met,
21 yes I'm Ellen Ginsberg, I'm General Counsel of the Nuclear Energy Institute. Our
22 members are Part 50 licensees, COL holders, COL applicants, license renewal
23 applicants and the full spectrum of others participating in the nuclear energy
24 sector. I have heard many comments here and in the interest of brevity and to
25 ensure that everyone gets an opportunity to speak, I would just note that there

1 are many comments that I think the industry will respond to but we'll do it in
2 writing in our follow-up material that's due on January 2nd. And I would note that
3 we're sympathetic to the compressed time frame but we believe that the
4 Commission has spoken with respect to the urgency of this matter and my point
5 would be in large part to encourage the agency to adhere to the schedule and
6 make every effort to properly balance the need for expedition but also the need
7 for a hard look as is required under NEPA.

8 We think there are several ways that the agency can do that. The
9 Commission has set out several of them, including using documents and we've
10 had some discussion about this by other participants that are already prepared.
11 Certainly the agency can use the analysis that was already included in the 2010
12 waste confidence decision and the underlying materials to the extent appropriate.
13 We also think that there's work that's been done on the long-term waste
14 confidence update project that can be useful in this context and we'd encourage
15 you to use that.

16 As an additional matter, I would suggest that in the scope of what
17 you consider, you look at better explanation of how used fuel -- used fuel fires
18 and spent fuel pool leaks might occur. It is my view, my personal view with all
19 due respect to the D.C. Circuit, that they didn't fully appreciate the facts
20 underlying spent fuel pool fires, the timing of those, how and when they occur.
21 And so we'd really encourage the agency to spend time and effort in the process
22 of developing the EIS, explaining those matters. There's also been a number of
23 -- there have been a number of comments on the use of the DOE EIS for Yucca
24 Mountain. I would note that CEQ regulations specifically allow the use of product
25 by other agencies and we think DOE is the expert agency in that regard. So it is

1 entirely appropriate for the NRC to look at that in the context of the no-action
2 alternative.

3 That brings me to another point, which is the use of the word
4 alternative here. The D.C. Circuit defined the major federal action as the waste
5 confidence rule itself. So I would suggest that we be careful in the agency in
6 particular be careful in describing alternatives as opposed to scenarios. The
7 alternative to the rule are several. One is the no-action alternative, meaning that
8 there is no rule promulgated or -- proposed or promulgated. Another as was
9 described in CLI, I believe it's 1216, is a policy statement or an order or an EA
10 and EIS that could be incorporated in site-specific analyses. I think that is an
11 important distinction that as you scope the rule, the EIS, you make sure that
12 you're careful about the parlance you use. Further, I would just suggest that with
13 respect to spent fuel pool fires and the leaks, that you explain very clearly the
14 relative risks and consequences. The consequences would be in my view
15 relatively time limited.

16 So with that we appreciate the opportunity to participate in this
17 meeting. We commend you for your public outreach. We think your
18 communications plan that you've laid out makes sense and will help to involve all
19 stakeholders and we will look forward to further discussions. We'll be submitting
20 comments on the 2nd.

21 CHIP CAMERON: Okay thank you. Thank you very much, Ellen.
22 We're going to stay here in the room for four more people and then take some
23 people on the phones. And I'd like Bruce Burton, Mike Callahan, Don Silverman,
24 and Kevin Kamps to be on hand. We're going to start with Bruce Burton.

25 BRUCE BURTON: Good afternoon. My name is Bruce Burton. I

1 am an international representative with the International Brotherhood of Electrical
2 Workers, a labor union representing approximately 725,000 members in the
3 United States, Canada, and the Republic of Panama. The IBEW supports the
4 NRC's efforts to outline and appropriate path to address the June 8th decision of
5 the D.C. Circuit that vacated and remanded the NRC's 2010 Waste Confidence
6 Decision and Rule. The 24-month period the NRC has allotted to prepare an
7 environment impact statement and promulgated a new rule is appropriate.
8 Although the NRC has stated it will not issue or renew any new licenses during
9 this time, the IBEW is grateful that NRC is continuing the licensing process. So
10 to that I say thank you.

11 As NRC considers the proper scoping of the EIS, the IBEW
12 respectfully requests that NRC consider the following: The analysis NRC
13 conducted to support its 2010 Waste Confidence Decision and Rule is
14 appropriate with the exception of the three specific issues mentioned by the
15 court. While the NRC should address the court's issues, the EIS should go no
16 further than that what is required by law and the court's decision. In other words,
17 the scope of the EIS should be narrow.

18 Regarding the long term underground storage of nuclear waste,
19 there is strong international scientific consensus that disposal in a geologic
20 repository is an effective and appropriate long-term solution. Several nations are
21 in the process of either building or considering long-term geologic storage. The
22 Department of Energy's Yucca Mountain EIS no-action alternative analysis,
23 which has already been adopted by NRC, is sufficient to address the court's
24 concern regarding the possibility that a permanent long-term repository will never
25 be developed.

1 The extremely low probability of either fires or significant leaks in
2 spent fuel pools should be considered in NRC's analysis. This is in keeping with
3 the court's comments regarding these two distinct issues. In addressing those
4 issues -- these issues, the IBEW respectfully asks that NRC only evaluate
5 potential scenarios that are considered reasonably credible. And regarding spent
6 fuel pools and dry cask storage, experience in the United States has shown that
7 spent fuel can be safely maintained in either storage medium for an extended
8 amount of time and well after permanent reactor shut-down.

9 And finally, evaluating the transportation of used nuclear fuel
10 should be beyond the scope of this EIS. The environment impacts of
11 transportation will be appropriately addressed in future EISs should a
12 consolidated storage repository be constructed. Thank you for listening to the
13 concerns of the IBEW.

14 CHIP CAMERON: Thank you very much, Bruce.

15 BRUCE BURTON: You're welcome.

16 CHIP CAMERON: Let's go to Mike, Mike Callahan. And then we'll
17 go to Don Silverman and then Kevin Kamps.

18 MIKE CALLAHAN: Thank you, Chip. I'm here today to provide
19 comments from the Decommissioning Plant Coalition and we appreciate the
20 opportunity to provide them. We recognize that you have an ambitious schedule
21 and we'll do anything we can to help you facilitate your work. The DPC was
22 established in 2001 to highlight issues unique to power plants that are
23 undergoing or have completed decommissioning activities. We've often stated
24 and we state again here today that we will keep the stored spent fuel and greater
25 than class C waste safe and secure as long as we are its owners and licensees.

1 Our first overarching comment, the Commission must continue to
2 hold to its long-established tenant in waste confidence proceedings, that it does
3 not endorse the indefinite on site storage of spent fuel and greater-than-Class-C.
4 Second, we believe that the scope of the NRC's effort should be bound or limited
5 to the three specific deficiencies identified by the court. Third, the NRC must
6 take care to ensure that it properly evaluates the environmental impacts of its
7 actions with respect to these specific deficiencies. In this instance, we do not
8 believe it would be -- that the NRC should undertake a broader examination of its
9 spent fuel storage transportation disposition regulatory programs. For example,
10 R&D efforts underway currently and those that will be conducted in the future by
11 NRC, DOE, EPRI, et cetera, should be integrated with the aging management
12 programs associated with license renewals, et cetera, of these systems for
13 extended storage periods.

14 Now we've commented in the past that the Commission must be
15 more aggressive and articulate the best practices, what they are, for the nation's
16 spent fuel management program. We've urged the NRC to communicate those
17 to the executive branch and the Congress as they shape and/or execute the
18 program. We continue to urge the Commission to do so but we do believe that
19 this is not a forum in which those determinations and communications can be
20 forged. Finally, we urge you to recognize and emphasize that one of the
21 fundamental principles behind waste confidence and the nation's civilian spent
22 fuel management efforts, is that the federal government, currently acting through
23 the Department of Energy, is responsible for the development of all necessary
24 infrastructure for long-term spent fuel and greater-than-Class-C management,
25 not the individual NRC licensee/DOE contract holder.

1 A couple of specific comments. Because none of the DPC member
2 sites has a spent fuel pool and do not have the risk of leaks from spent fuel pools
3 for 60 years after the expiration of operating license, and will not have any
4 chance of consequences from spent fuel pool fires, we're not in a position to offer
5 first-hand comments on those two deficient areas. As the Commission held -- as
6 the court held that the Commission did not evaluate the environmental effects of
7 failing to establish permanent disposal, we would offer the following comments.
8 It should be a bedrock principle that the federal government will act to fulfill its
9 constitutional and statutory obligations to protect citizens from safety and security
10 threats. Therefore, the environmental impacts of a postulated failure to establish
11 a repository must be measured against a surety and reality that the federal
12 government will act in cases where spent fuel safety and security issues arise
13 and are beyond the scope of NRC regulatory authority and licensing programs
14 and responsibilities.

15 As an aside, the DPC believes that the removal of spent fuel and
16 greater-than-Class-C to consolidated interim storage on a priority basis from our
17 sites, is as likely and perhaps more likely than extended storage at these sites for
18 400 to 100 years. We base this on the support for consolidated interim storage
19 that's emerged over the past decade from the Blue Ribbon Commission, from the
20 legion of state, regional, local governmental entities, and the near universal
21 support it enjoys from many non-governmental organizations. The establishment
22 of CIS for spent fuel and GTCC from our facilities were provided demonstrative
23 support for waste confidence decision by the Commission. We will submit written
24 comments prior to the January 2nd deadline. We will do everything we can to
25 help you and thanks for the opportunity to comment.

1 CHIP CAMERON: Thank you, Mike. Don Silverman? And then
2 we'll go to Kevin Kamps. And then we're going to go to the phones.

3 DON SILVERMAN: Good afternoon. My name is Don Silverman
4 and I'm a partner in the energy practice at the law firm of Morgan Lewis. And I'm
5 pleased to be here today to provide very brief initial comments on behalf of
6 Morgan Lewis on the scoping process for the NRC's waste confidence EIS.

7 At this early stage of the process, we have not fully developed our
8 thoughts and recommendations. But we hope that the NRC staff finds our early
9 thoughts and suggestions helpful. First, we endorse the comments presented by
10 the Nuclear Energy Institute on behalf of the power industry. And we hope that
11 the NRC will give them careful consideration in developing to appropriate scope
12 for the EIS. Second, we want to underscore the need for an efficient and timely
13 NEPA process in order to meet the Commission's direction to issue a final EIS by
14 September 2014. This is critical to the timely and efficient completion of multiple
15 licensing actions. To accomplish that goal, the NRC should, consistent with
16 NEPA legal principles, utilize, adopt, incorporate by reference, or tier from
17 existing analyses, including the NRC's 2010 waste confidence analysis and the
18 Department of Energy's EIS issued for the Yucca Mountain repository to the
19 maximum extent possible. In particular, the Yucca Mountain EIS no-action
20 alternative analysis, which assumed that the Yucca Mountain repository would
21 not be built, analyzes long term onsite storage at reactor sites, including the dry
22 storage option. Two scenarios were considered: onsite dry storage with
23 institutional controls for 10,000 years and onsite storage with the 100-year
24 institutional control period, both of which were characterized by the Department
25 as unlikely. DOE considered, among other things, impacts on surface and

1 ground water and NRC requirements for fire protection.

2 I'd like to note that I think the staff is aware that the NRC staff in
3 fact did adopt relevant portions, in fact virtually all, of the Department of Energy
4 EIS in 2008. I know another speaker has brought that subject up and Mr. Burton
5 correctly recognized just a moment or two ago that that has been adopted by the
6 NRC. And I point out that based upon my knowledge of NEPA law, that required
7 an independent determination by the NRC to be made as to the adequacy of the
8 Department of Energy's EIS. It's not a blind determination. We think DOE's
9 analysis of the no action alternative should go a long way towards addressing the
10 environment impacts of the potential failure to cite a permanent repository as well
11 as the other matters remanded by the court.

12 Third, we encourage the NRC to be especially thoughtful before it
13 concludes there are waste confidence issues that can't be addressed in a
14 generic environment impact analysis. We agree with the Commission's direction
15 that there must be a quote, "exceptional or compelling need" to take this
16 approach. We distinguish this from a licensee's desire to move forward on a site
17 specific analysis if it believes that's the most efficient approach under its own
18 particular circumstances. Finally, centralized spent fuel storage should be
19 considered in the EIS. There are a number of technical documents that analyze
20 the potential environmental impacts of a away-from-a-reactor centralized storage
21 that could be useful in the NRC's analysis. They're listed in table 7-1 of DOE's
22 Yucca Mountain EIS and they include a wide range of NEPA analyses that were
23 undertaken both by DOE and others. Again, we appreciate the opportunity to
24 present our initial views and we commend the NRC on what we anticipate will be
25 a robust and effective scoping process. Thank you.

1 FEMALE SPEAKER: You bust!

2 [inaudible commentary]

3 CHIP CAMERON: I guess -- is that someone who didn't mute their
4 phone? Okay. We'll just treat it as a barking dog that we usually hear but I hope
5 that person is okay. At any rate, we're going to go to the people on the phones.
6 And operator, I'm going to -- I'm going to -- oh, Kevin, sorry. Thank you. Kevin
7 Kamp.

8 KEVIN KAMPS: Thanks Chip. Well I'd like to start by echoing a
9 letter sent by Geoff Fettus of Natural Resources Defense Council as well as
10 Diane Curran and Mindy Goldstein, attorneys representing a coalition of 25
11 environment organizations. It was sent to the five NRC commissioners on
12 November 11th. It called for the suspension of this proceeding, the withdrawal of
13 the Federal Register Notice and the correction of the legal violations contained
14 therein, or not contained therein I should say. Legal violations of the National
15 Environment Policy Act, violations of NRC's own regulations, specifically 10 CFR
16 Part 51.27(a)(2). What's missing from the Federal Register Notice? A
17 description of the proposed action is missing. Also alternatives to the proposed
18 action.

19 So I would like to congratulate NRC for considering the risks of
20 onsite storage of high level radioactive waste. After all, we're 55 years into
21 commercial nuclear power in this country and the generation of irradiated nuclear
22 fuel. We're 43 years post enactment of the National Environment Policy Act.
23 We're 38 years post the creation of this agency. Of course, I wouldn't forget that
24 the Atomic Energy Commission flowed directly into this agency. So it's about
25 time that the environment impacts of irradiated nuclear fuel storage onsite are

1 considered by this agency. But of course it took a court order to get you to do it.

2 And along those lines, I would like to express my thanks to the
3 coalition of states and environment groups and tribes that won that important
4 environment victory for the citizens of this country and express our anger I would
5 say at the rush job that is being forced on us now. The Federal Register Notice
6 appeared on October 25th. Today is November 14th. That was 20 days ago that
7 you gave us notice for this proceeding. You're giving us 70 days to comment on
8 this environmental scoping. So looking at the 70 days, that's one day of public
9 comment for every 14,000 years of hazard of irradiated nuclear fuel. That's the
10 million-year standard that was also forced to be addressed by an environmental
11 coalition lawsuit against the Environmental Protection Agency and the Yucca
12 Mountain proposal, a court-ordered recognition by the Environmental Protection
13 Agency that high-level radioactive waste, irradiated nuclear fuel, has a million
14 years of hazard. Of course, that's an underestimate when you consider
15 radioactive poisons like iodine 127 with a 15 million year half-life. That's a
16 minimum of 150 million years of hazard. And then today, four minutes to make
17 comments. That's one minute per 250,000 years of hazard.

18 So we will ask for an extension to this comment period, January
19 30th at a minimum. We would request that NRC make available an email
20 address for the submission of public comments, that would be most appreciated.
21 We'd request that hearings be held at all of the 104 operating reactor sites as
22 well as the 25 shut down reactor sites in this country for the submission of public
23 comments in this proceeding. And I think an agency with 4,000 staff and \$1
24 billion annual budget could make that happen.

25 And I'll close my comments addressing today the merits of a single

1 area and that is security issues having to do with onsite storage. Thank
2 goodness on September 11th, 2001, the attackers who attacked the World Trade
3 Center did not attack the Indian Point nuclear power plant with its pools that are
4 not inside primary radiological containment structures. I would point out that dry
5 cask storage itself is not designed to withstand terrorist attack as shown by a
6 1998 U.S. Army Aberdeen proving ground experiment. And I would like to
7 submit for the record and correct the record, the Decommissioning Plant
8 Coalition spokesman said that there is near universal support for centralized
9 interim storage by NGOs, I'm not sure which NGOs he's talking about. What I
10 have here we've submitted this more than once, to put it mildly, to the NRC is
11 principles for safeguarding nuclear waste at reactors, also known as hardened
12 onsite storage that a coalition of 200 environmental groups has been calling for
13 for a decade. This is to empty the pools. This is to institute dry cask storage that
14 is designed well, built well, fortified against attacks, safeguarded against
15 accidents, and built to last not for decades, but for centuries into the future. So I
16 don't know who to give this to.

17 In terms of the security risks, I'll point out that the National
18 Academy of Sciences in 2005 backed up warnings by researchers such as Bob
19 Alvarez, et al., which included the current chairwoman of this Commission that
20 raised a red flag about the risks – the catastrophic risks of pool fires and if the
21 agency needed any more evidence the representative from the State of New
22 York pointed to Fukushima Daiichi Unit 4, which is still precariously on edge of
23 simply collapsing and catching on fire. And I would also point out that something
24 that Dr. Makhijani said, and that is the mere hope as the court put it, that a dump
25 site will be opened to relieve this agency of its responsibilities to protect public

1 health and safety and the environment at reactor sites is not sufficient under the
2 National Environmental Policy Act. And to close my time, I would just like to put
3 forth the preferred action alternative of stop making it. Stop licensing atomic
4 reactors. That is what needs to happen.

5 I would also echo the spokesman from the Prairie Island Indian
6 community that site specific studies are necessary and that bolsters the
7 argument for holding hearings in the vicinity of all the nuclear power plants
8 implicated. Thank you.

9 CHIP CAMERON: Thank you. Thank you very much, Kevin. And
10 we will go to the phones now and operator, I'm going to give you five names and
11 perhaps – the operator is up there, that's why I keep looking – but I'm going to
12 give you five names and if you could put them in the que we'd appreciate that.
13 And first it would be Sara Barczak and then Dominique French, David Weisman,
14 Lou Zeller and Mary Olson.

15 OPERATOR: One moment please.

16 CHIP CAMERON: Thank you.

17 OPERATOR: Sarah, your line is open.

18 SARA BARCZAK: Hello. This is Sara Barczak. Can you hear me?

19 CHIP CAMERON: Yes. Yes, Sarah.

20 SARA BARCZAK: Thank you. My name is Sara Barczak. I'm the
21 High Risk Energy Choices program director with the Southern Alliance for Clean
22 Energy. We're a regional non-profit membership organization working in the
23 southeastern United States, where obviously a lot of reactors are already located
24 and where many are proposed. So we appreciate this opportunity to comment.
25 We have several significant concerns regarding this process. The fast-paced

1 timing directed by the NRC commissioners is a major concern and you've
2 obviously already heard people discuss that today. Just a few weeks are not
3 enough time for the general public and concerned stakeholders to fully engage in
4 meaningful dialogue on this important and complicated subject. We recommend
5 that several public meetings should also be held after the written comment
6 period. Additionally, the commenting period itself is too short, especially since as
7 many people pointed out, it includes two major holiday seasons. It should be
8 extended by at least 60 days.

9 I also want to point out that some of my comments were actually
10 questions but I wasn't sure how easily those questions could be asked and
11 answered over the telephone, so I've reformulated them into comments here.

12 As others have pointed out, we too have serious concerns about
13 the scoping process itself. The NRC has failed to provide information required
14 including a description of the proposed action or any alternative to the proposed
15 action, leaving the public to guess on crucial information. We are extremely
16 dismayed that the NRC is not engaging reactor communities or potential reactor
17 and/or nuclear waste dump communities despite recommendations made by the
18 Near Term Task Force on Fukushima and the Blue Ribbon Commission to more
19 intentionally engage affected stakeholders. We recommend holding scoping
20 meetings in affected and possibly affected communities across the country and
21 do not see these web-based hearings to be a suitable substitute for direct
22 contact. We believe the NRC is violating its own regulations on implementing
23 NEPA by failing to describe the proposed actions, these impacts to be evaluated
24 in the waste confidence EIS. The NRC should withdraw the scoping notice and
25 reissue with a statement of proposed action. And the NRC should also identify

1 alternative actions, including the most obvious, which would be the no-action
2 scenario of keeping reactor licensing and not creating new radioactive waste.

3 The two-year time frame to complete this process is clearly not
4 adequate to meaningfully evaluate possible long-term environmental impact of
5 storing high radioactive waste onsite for 200 to 300 years. The NRC staff
6 themselves previously alerted the commissioners of this, stating that five years
7 was the most quickly the process could be conducted, ideally needing seven
8 years. There are many risks associated with a generation long timeframe,
9 including security and proliferation risks as well as those potentially associated
10 with the loss of institutional infrastructure and memory. The scoping notice calls
11 for generic analysis of long-term nuclear waste storage intact which cannot and
12 should not be analyzed generically. Impacts will vary greatly from site to site and
13 will depend on special characteristics and sensitive ecologies in each location, all
14 of which are impossible to study generically. Dismissing the unique site
15 characteristic will do nothing to protect individual communities. The NRC has to
16 do a much better job engaging the public, not disengaging the public from a
17 crucial debate about an issue that will affect many, many, many future
18 generations.

19 Overall, it seems that the NRC via -- excuse me, overall it seems
20 that the NRC via a directive from the NRC commissioners is putting the
21 proverbial cart before the horse, asking the public to comment on the scope of a
22 proposal that has not yet been defined. We would request that the NRC give this
23 very important issue the due time and diligence that it deserves. Thank you.

24 CHIP CAMERON: Thank you very much, Sarah. And operator,
25 could we have Dominique French if she's on the line?

1 DOMINIQUE FRENCH: I'm here. Hi.

2 CHIP CAMERON: Oh Dominique, you're right here.

3 DOMINIQUE FRENCH: Do you want me to go now or do you want
4 to take more people on the phone line?

5 CHIP CAMERON: No, why don't you go ahead. We'll be back to
6 you in a minute, operator.

7 DOMINIQUE FRENCH: Hi. My name is Dominique French. I'm
8 here on behalf of Nuclear Information Resource Service, a non-governmental
9 organization with members in all 50 states who seek a clean, safe, healthy
10 energy future. NIRS is a co-signer of a letter sent out on November 8th, 2012, to
11 the NRC commissioners, registering our view that this scoping session is out of
12 order and does not comply with the requirements of the National Environmental
13 Policy Act or the Commission's regulations implementing NEPA. Nonetheless,
14 thank you for an opportunity to comment.

15 NIRS urges the NRC to comply with NEPA better to find the
16 proposed actions and alternatives and then offer us the opportunity to comment
17 on scope again. And we urge the NRC to do too at that point extend itself to
18 other – to offer additional meetings and communities directly impacted by
19 radioactive waste generation and storage. Thank you. We will do our best to
20 bring out some of their -- bring out some of their concerns now. Since we cannot
21 meaningfully comment without knowing the prospective federal action that is
22 being evaluated, we will assume that at least one of the actions that should have
23 been specified for the scoping meeting is whether the NRC should continue
24 granting licenses and license renewals for the use of nuclear fuel. That, after all,
25 is how irradiated spent nuclear fuel is generated. In our view, there are other

1 actions that should also be included in this evaluation including the production of
2 nuclear fuel, all steps, and power operates that necessitate the use of higher
3 burn-up fuels. There may be others.

4 Scope of impact associated with high-level radioactive waste
5 cannot begin with the reactor. The only reason nuclear fuel is produced at all is
6 because of the NRC granting licenses for operations which depends upon the
7 use of nuclear fuel. Therefore all aspects of uranium fuel and any other type of
8 nuclear fuel production are in scope in our view.

9 Since there are many steps in making fuel, mining, milling,
10 conversion, enrichment, and fuel fabrication, the environmental and human
11 environmental impact of release of radioactivity and exposure to radiation at all
12 these facilities must be considered along with the transportation between these
13 sites and all waste produced at every step. Inversely, the alternative to not grant
14 such licenses, must include looking at the impacts and beneficial outcomes of
15 stopping fuel production and closing these facilities sooner rather than later.

16 When addressing radiation exposure, we expose that the maximally
17 -- we urge that the maximally exposed individual and the average member of the
18 critical group and any other reference body be assumed to be a female between
19 the ages of zero and five years. It is past the time for the regulator to assume it
20 can use its current flawed standards based on the average man as the basis of
21 an environmental impact assessment. We know where the greatest impact will
22 occur and it is not valid to assume a fiction that a little girl is protected. As a
23 species, we will only survive if we based our conclusions and therefore social
24 selection on the least radiation-resistant links in our life cycle. When it comes to
25 looking at impacts at the reactor site, we must look at the existing reactors to

1 determine the impact. Since all radioactivity on a reactor site is the result of this
2 irradiated fuel, directly or indirectly, there is no radioactive material waste on that
3 site that is outside of the scope of impact.

4 This list of things to look at would include: identify impacts of
5 pyrophoric materials and fuel cladding for duration or fuel management; fuel pool
6 leaks and resulting contamination; planned and unplanned gaseous releases,
7 whether -- including when reactor vessel is opened for refueling; activation
8 wastes including reactor components; liquid wastes and liquid waste
9 management, filters, and resins; corroded pipes including those buried for
10 purposes of liquid waste disposal; so-called low-level waste generation;
11 consequences of station blackout for both core and fuel pool; consequences of
12 loss of coolant for both core and fuel pool; consequences of inadvertent criticality
13 in fuel pool. For Mark Is, impacted melted fuel management in impromptu
14 structures not designed for it. For all others, impact and loss of vessel integrity
15 and likely scenarios for management, fuel pool criticality issues, drain down
16 spires and other leakage versus dry storage, data on the performance of various
17 models of dry storage containers since we now have several decades of data to
18 inform future choices, on hardened dry storage versus various scenarios for
19 hardening. This is a partial list that we will expand upon in our written comments.
20 Thank you.

21 CHIP CAMERON: Thank you. Thank you, Dominique. Operator,
22 is Lou Zeller on the phone?

23 LOUIS ZELLER: Yes, I'm here.

24 OPERATOR: The line is open.

25 CHIP CAMERON: Go ahead, Lou.

1 LOUIS ZELLER: Hello. Thank you, Chip. My name is Lou Zeller.
2 I'm executive director of Blue Ridge Environmental Defense League and I'm
3 speaking on behalf of the league and its chapters and projects and members in
4 seven states. Our message to the NRC is one: there should be regional
5 hearings so that those living near nuclear power plants and stored high-level
6 radioactive waste can attend and talk to NRC officials in person. Two, we
7 oppose NRC's two-year deadline to complete the waste confidence rule.
8 Agencies rushing the process and the public will suffer if the NRC persists in
9 pleasing the industry at the expense of public safety. We call upon NRC to
10 completely eliminate the waste confidence rule because it is a general rule, it
11 cannot apply to the 65 different commercially operated nuclear power plant sites
12 across the United States. Each site is different and should be treated as such.
13 There should be individual plant environmental impact statements. Four, we
14 oppose nuclear waste dumps. A general waste confidence rule would be based
15 on finding one or more waste dumps which would be located in economically
16 stressed communities. Potential sites would be in the southeast, such as
17 Savannah River or on Native American land such as Yucca Mountain. We will
18 continue to oppose them on the basis of environmental justice. Five, we support
19 dry, safe storage at nuclear power plant sites. Industry made the waste and
20 profited from it, they should manage it for as long as need be.

21 Waste confidence, of course, is about high-level nuclear waste
22 produced by nuclear reactors generated in a reactor core and highly radioactive.
23 The old rule entitled "Temporary Storage of Spent Fuel after Cessation of
24 Reactor Operation Generic Determination of No Significant Environmental
25 Impact." The name of the rule says it all, and there is the problem. The old rule

1 presumed that waste stored at reactors would go to a waste dump someday. But
2 there are no viable prospects and no legal basis. The NRC cannot simply
3 retread an old tire.

4 I have three points that I'd like to make in brief. The NRC is rushing
5 the process. The NRC must resolve many technical issues, including long term
6 waste integrity, vulnerability, deterioration, and accidents. Also, nuclear waste
7 stored at Fukushima is still being evaluated. According to an NRC staff
8 [inaudible] long-term waste confidence update was expected to take eight years.
9 If the NRC has set a deadline of September 2014, agency's two-year deadline is
10 rushing the process and the public will suffer if the NRC persists.

11 Second, there's no dump site under the Nuclear Waste Policy Act
12 of 1982, commercial power reactor waste disposal is limited to no more than
13 63,000 metric tons at the nation's first nuclear dump site. An additional 7,000
14 metric waste from nuclear weapons production and nuclear energy research for
15 the total of 70,000 tons set out in the Nuclear Waste Policy Act. According to the
16 U.S. Department of Energy's Office of Civilian Radioactive Waste Management a
17 total of 63,000 tons was reached in 2010. So the existing operating commercial
18 power reactors have effectively filled the nation's first waste site and are now well
19 into the second. In fact, DOE predicted that there would be over 105,000 metric
20 tons of commercial irradiated nuclear fuel by 2046, and DOE's assessment was
21 based on license extensions of only 10 years and included no new commercial
22 nuclear reactors in the United States. Therefore, high-level nuclear waste
23 generated by existing reactors is well on the way to filling twice over the mine
24 geologic repository NRC has assumed will be available when necessary. The
25 Environmental Defense League has raised this specific issue in several licensing

1 proceedings but until State of New York versus NRC, the Commission has been
2 recalcitrant, but there is still no place for nuclear waste.

3 Third, and finally, this point might be entitled "duct tape" because all
4 nuclear waste solutions are temporary. I recommend the principles as a starting
5 point for the current scoping process already alluded to by Kevin Kamps of
6 Beyond Nuclear. In brief, they are require low density open frame layout for fuel
7 pools, for fire safety, and calling for dry storage after five-year period. Also,
8 establish hardened onsite storage, a storage system unattractive as a terrorist
9 target and retrievable. Protecting fuel pools to withstand an attack by air, land, or
10 water from a force at least equal in size and coordination to the 9/11 attacks.
11 Require periodic review of hardened on-site facilities and fuel pools with
12 meaningful participation from public stakeholders. There should be dedicated
13 funding to local and state governments to independently monitor these sites and
14 finally to prohibit reprocessing. The reprocessing of irradiated fuel has not solved
15 the nuclear waste problem in any country.

16 Thank you for the opportunity to make these comments. We did
17 cosign the November letter -- November 8th letter mentioned earlier, and we will
18 be submitting further remarks before the close of the comments. Thank you.

19 CHIP CAMERON: Operator, we're going to go to David Weisman
20 next if he is on the phone and then to Mary Olson.

21 DAVID WEISMAN: Yeah, David's here.

22 CHIP CAMERON: Hi, David.

23 DAVID WEISMAN: Are we live?

24 CHIP CAMERON: Yes.

25 DAVID WEISMAN: David Weisman, Alliance for Nuclear

1 Responsibility. In summary, we -- the Alliance agree with the others on the
2 procedural need to alter the calendar for comments and agree with others who've
3 suggested hearings need to be held specifically in the impacted communities.
4 We also agree with those who believe in the need to dispel with the concept or
5 notion that this is a generic and a generic environmental impact statement is
6 possible.

7 I'm speaking to this morning 11 miles from the confluence of the
8 most active earthquake fault surrounding any reactor here at Diablo Canyon.
9 We're looking ahead now at issues that need to be dealt with in one or two
10 centuries, if you look at your early chart, going forward now 100 to 200 years,
11 and I can tell you there are certainly sections of this coast of California that have
12 been reclaimed by the Pacific Ocean in the last century, and as mother nature
13 proceeds, is likely to reclaim much more of California's coast on which these two
14 reactors sit within half a mile of the Pacific Ocean. So, to say that you can
15 divorce these geologic uncertainties in a generic fashion wouldn't be prudent,
16 and recall, even in the case of the Mineral, Virginia earthquake, in that case
17 where the hazard had been underestimated was the spent fuel cask that suffered
18 the most visible damage in that event. It's not just California as well that suffers
19 these -- again, the ability [inaudible] flood waters near Oyster Creek as a result of
20 Hurricane Sandy or the flood waters on the Missouri River at Fort Calhoun. If
21 you're looking at a process that's going to look at spent fuel storage on site for
22 100 to 200 years then those 100-year flood zones which, as we've now
23 discovered, can happen. Then global sea level rise over the next century on the
24 riverine and coastal locations must be considered as well. And so that is our
25 statement on the inadvisability of considering this generic, especially from a

1 geologic point of view.

2 But finally, we raise a concern that the environmental impact
3 statement look at that's not necessarily environmental but real, and that
4 economic -- is an economic impact which we feel must be addressed as
5 ratepayer and ratepayer advocates because going forward on all this, who's
6 paying? We have understood that once the deal we accept the fuel for
7 permanent repository gets on the truck, the train, or whatever leaves the site,
8 that's the responsibility of the federal government. But in the 50 to 100 years or
9 more that may precede such an event, how can the agency ensure the fiscal
10 solvency of the utilities that are now in charge of maintaining the security and the
11 safety of all the pertinences that are required to keep spent fuel stored onsite?
12 Will the ratepayers be paying for this 100 years after the plants have ceased to
13 generate either revenue or electricity?

14 And so, the cornerstone somewhere in the EIS must be the ability
15 to maintain the fiscal responsibility because without that money the integrity of
16 the facilities, the ability to repackage the cask if necessary won't be there without
17 money unless the federal government is willing to step in and say that they're
18 going to accept those costs now and not at the time when it goes to a supposed
19 federal repository. Remember, there are many corporations, famous institutions,
20 once beloved brand names from Pan Am to TWA to Oldsmobile that are no
21 longer with us, they are insolvent, they are gone. So what would happen if a
22 private utility and their money goes away? Again, absent the federal government
23 assuming all cost responsibilities at that time, how is it paid for?

24 Remember too, as long as the waste remains on-site, again
25 according to the current rules, it is the local state municipal agencies who are

1 responsible for keeping the offsite responders, the emergency response teams,
2 the evacuation plans available. And absent the revenue that these provide now
3 to those communities who pays for this over the 50, 100, and 150 years that
4 would follow? So we would ask that economic issues cannot be divorced from
5 this process as well. And I guess that's the comment today of the Alliance for
6 Nuclear Responsibility.

7 CHIP CAMERON: Okay, thank you. Thank you very much, David.

8 DAVID WEISMAN: Thank you, Chip.

9 CHIP CAMERON: Mary Olson?

10 MARY OLSON: Hello?

11 CHIP CAMERON: Hi, Mary.

12 MARY OLSON: Hi.

13 CHIP CAMERON: We hear you.

14 MARY OLSON: You know, it's funny, there's a really long lag time
15 between the phone and the Internet picture, by the way. Like, as in over a
16 minute. But I'm glad to be on and out of deference to the fact that Dominique
17 French has spoken I am going to be very brief, and I will say that although I work
18 for Nuclear Information and Resource Service, it was local people here in
19 western North Carolina who live around a site that was characterized to some
20 degree for a repository 30 years ago that I was urged to call in with a second
21 voice coming from the grandmother wing. We understand the interveners and
22 the legalisms, but we also want to show up and speak to NRC staff and
23 appreciate the opportunity to do that.

24 And listening today I understand this idea about scenarios, but I
25 also want to re-emphasize that this is, like, a -- worse than the game of battleship

1 in terms of you not really putting out what you mean by the action that is going to
2 be under scope here. But taking the idea and scenarios it's very clear that you
3 have to apply each of those scenarios to each of the possible alternative actions.
4 Right? So, you can't just have no-action that is considered by itself without
5 applying the scenarios to it. Now, you're probably shaking your heads yes but
6 how would I know since the delay time on the camera is so great, and it doesn't
7 show you anyway. So, you know, some limitations to this digital thing.

8 But I want to make two quick points in addition to that one
9 endorsing the notion that you really need to start over once you tell us exactly
10 what actions you're looking at. Then when you talk about scope, this is a generic
11 comment, you really have to analyze impacts, and unfortunately the word
12 significant is just as hard to wrap your brain around as confidence. We have to
13 ask about significant to who? What is the significance? When is it significant?
14 And in the case of a material that the EPA ruled has significance out to a million
15 years, that's going to be really hard to answer.

16 But one answer I want to give you that we're going to really be
17 looking at is whether you look at actual environmental significance or whether
18 you're going to perpetrate the fiction that NRC regulations are based on zero
19 impact. That's simply not true. NRC regulations are based on a risk assessment
20 that assigns a level of 3.5 fatal cancers per 1,000 reference men exposed over
21 their lifetimes to 100 millirems, and then you do a linear extension of that graph
22 to get any other possible risk levels, and what was known from BEIR VII is that
23 little girls are many times more vulnerable than that reference man. Now, we can
24 all argue about how many times more because the BEIR data is highly limited
25 and the Chernobyl data and the Fukushima data are going to tell us different

1 things, but it's at least seven times. So, we really want, us grandmothers, to see
2 you do a credible analysis of all of the environmental impacts of these issues that
3 have been raised. That's point one.

4 Point two: The court did tell you to imagine that maybe our society
5 made a mistake. That maybe we've allowed the legal production of a material for
6 which there is no solution. And if that is the case you're not responsible for that,
7 you weren't in office or in your jobs or in any other thing of responsibility, role of
8 responsibility when those decisions were made, but the decisions that you make
9 today in this process over the next several years, however long it takes, are
10 going to greatly make that situation better or greatly make it worse. And, again, I
11 really, really, really ask you to consider that a no-repository scenario is the same
12 as we don't have a solution for this material. And the first rule of getting out of a
13 hole is to stop digging.

14 But as you look at that choice I really ask you, as a grandmother, to
15 think about the babies, and to think especially about the little girl babies because
16 the numbers we have show that they are at least twice as -- the way I put it is
17 they are less resistant. I don't like that word vulnerable. It implies there's
18 something wrong with us. There's nothing wrong with us. We're half the
19 species. Our future as a people depend on the girls, and so we are half as
20 resistant to radiation as the little boys. And we love you little boys, but you're just
21 not going to make it on your own. So, NRC staff really needs to run ahead a little
22 bit here since this material's being produced for so many decades already. So
23 with that I'll just remind you the best way to get out of a hole is to stop digging.

24 CHIP CAMERON: Thank you. Thank you very much, Mary. And
25 operator, I'd like to go to one more person before we come back in the room.

1 Ruth Thomas.

2 RUTH THOMAS: I'm here.

3 CHIP CAMERON: Hi, Ruth. I'm sorry that we didn't get to you
4 earlier.

5 RUTH THOMAS: Well, I was glad to hear the other people talking,
6 and I'm glad to be here. My name is Ruth Thomas, I'm with Environmentalist
7 Incorporated, a research group founded in 1972. I would like to say I'm more
8 than a grandmother, I'm 92 years old, and I've been working on this issue for
9 more than 40 years. What I would like to ask is that this be a very different
10 process from those I've experienced in the past, that the NRC listen, really listen,
11 to what we're saying. And I can't help being emotional about this. People say,
12 "Well, it isn't good to be emotional." I think this is -- if it's not something to be
13 emotional about, I don't know what is. The history of all the accidents that have
14 happened. The discovery that cesium-137 is at the Vermont Yankee site, that
15 being a product of nuclear fission. Where did it come from? Did it come from the
16 reactor or did it come from a fuel pool? There are so many questions to ask.
17 The waste handling problems at Turkey Point 3 and 4. West Valley, New York,
18 where that nuclear fuel reprocessing plant was; think what that is like now.
19 And the weapons facility. This is all connected to the weapons.
20 We can't deny that these are the same materials that are used in bombs.
21 There's the evidence contained in testimony at adjudicatory hearings where
22 witnesses testified under oath. I've taken part in that. I've heard what the pro-
23 nuclear people say when they're under oath, and it's not the same story we hear
24 so often. There are the fires and leaking. I've heard the witnesses such as John
25 Gofman, Robert Pohl [spelled phonetically], Arthur Tamplin, K.Z. Morgan. What

1 is it going to take? I wonder, what is it going to take? If somebody said I know
2 the people I'm talking to were not involved in this happening. They did not
3 decide that we needed nuclear fission to heat water, to make power, to make
4 energy which was really steam generators that were doing it. We need to think
5 about Oak Ridge and the Savannah River Plant, Las Alamos and Rocky Flats.
6 These are all reality sources; the type of evidence that we need that the Nuclear
7 Regulatory Commission and the Department of Energy need to use in making
8 decisions, not list a whole bunch of references that are mainly from their own
9 agency.

10 And they're talking about rules, and they're talking about
11 regulations. When it comes to using nuclear fission people leave out the fission
12 in it these days. Human error, flooding, the weather, whether maintenance is
13 maintained perfectly, all of these things. What does the Nuclear Regulatory
14 Commission call them? Abnormal occurrences and unusual events. Any kind of
15 thing, small is going to have an impact, but yet in the environmental impact
16 statements the connection isn't being made between the conclusions and
17 statements and rulings that they make and actual evidence, reality, what is going
18 on, what has gone on at Fukushima. This is being rushed through until there
19 isn't going to be time if they have their way, whoever you are. There's not going
20 to be time to think through what happened at Fukushima -- what happened with
21 those fuel pools. And then there's the local situation right here in South Carolina
22 where we have three nuclear power plants. Oconee and a series of dams. What
23 happens if one fails? They also have earthquakes in that area. Not big ones, but
24 big enough to destroy a dam. I ask you to consider all these things that have
25 been brought up and all the people who have given their time and been on this

1 call. We aren't doing it for profit. We're doing it because it's -- with me, I know,
2 it's the most important thing in my life, and I'm hoping that I'll live long enough to
3 see some change. What are we leaving to the future?

4 CHIP CAMERON: Ruth, thank you for those heartfelt comments.
5 Thank you for being with us today.

6 RUTH THOMAS: Thank you.

7 CHIP CAMERON: Okay, we're going to -- I just want to reassure
8 everybody that we have several speakers left in the audience, and we have a few
9 on the phone. We will go over before our clock time so that we can hear from
10 everybody, and I think it won't be that far over, but maybe it's appropriate to go to
11 Judith. Judith Holm? Judith still here? Oh, you didn't want -- okay. Thank you.
12 Thank you, Judith. How about we do Katherine Fuchs and then Steve Hamrick,
13 Dave Repka, and Dick Mark. Katherine.

14 KATHERINE FUCHS: Thank you. Thanks for having this public
15 hearing and thank you for saying my name right. I am here representing the
16 Alliance for Nuclear Accountability, and we are a coalition of 35 groups around
17 the country, some local, some national, but always with a constituency in the
18 shadow of the nuclear enterprise whether it's weapons or power production. I
19 am going to try to be concise and not repeat things that other people have said
20 so I'll just briefly make a few points.

21 First of all, my organization does not consider -- or I should say, we
22 don't have confidence in long-term waste storage in spent fuel pools for a
23 number of reasons. We've seen in Fukushima, you know, what happened with
24 the Mark I design. It's not a very stable design. Also, many spent fuel pools are
25 not hardened against terrorist attacks, and U.S. spent fuel pools are packed far

1 more densely than they were originally intended, and we are very concerned
2 about consequences of that overcrowding. So hopefully you will look at those
3 issues. We do support the concept of hardened onsite storage. We're one of the
4 organizations that signed on to the principles that Kevin put in for the record
5 earlier. I brought my own copy, but I won't leave any more. So we would urge
6 you to look at the hardened onsite storage. We feel that this is the appropriate
7 time and process for analyzing hardened onsite storage, for defining what
8 qualified as hardened onsite storage, and for implementing a national system of
9 hardened onsite storage to deal with some of that spent fuel pool overcrowding
10 issue. Of course, that's not appropriate at all places. I think Prairie Island is
11 probably the most noteworthy example of where we'd want to get it offsite.

12 Another issue we're concerned about is the possible use of mixed
13 oxide plutonium fuel in the United States. As you may be aware, the Tennessee
14 Valley Authority is currently considering using MOX fuel. If that does become
15 practice then we're going to have more fuel forms out there to deal with that
16 require, you know, different cooling off periods, different space away from other
17 fuel rods. And I would like to draw your attention to a quote from Daniel Stout
18 with the Tennessee Valley Authority, which I am not going to quote directly
19 because I'm reading off bullet points here. But he said that dry cask storage -- or
20 I'm sorry, that MOX plutonium fuel will require an additional 56 years of dry cask
21 storage before it's able to go into a repository that's been designed for uranium
22 fuel. So as we think about how long we're going to need to be keeping, you
23 know, fuel rods onsite or in dry casks there will be variations for different fuel
24 forms, and we do urge you to take special consideration for MOX plutonium fuel.

25 We also urge you to consider the changing design bases or the

1 changing -- what should be a different design basis if we were to build a lot of
2 these facilities today versus when they were first built. Not only are we
3 constantly learning more about geology and seismology, but I think that climate
4 change is a real thing that we should be concerned about. As we've seen in the
5 last few years, hurricanes are stronger than they've been before, there's been
6 more flooding in different areas of the country, and we need to be thinking about
7 not just, you know, the past standards that we've accepted but what's coming
8 down the pipeline and, you know, how these facilities are going to stand up to the
9 storms of the future and things of that nature.

10 Additionally, to comment on the process that we're dealing with, my
11 organization does feel that this should be a national process and not something
12 that only just happens in Rockville. First, we do appreciate using new
13 technologies and having the webcast and the phones. This is definitely an
14 improvement over, you know, what would have been available, you know, a
15 decade ago, so we do appreciate your using that, but we do not think it's a
16 substitution for real in-person exchange. So I am definitely in favor of Kevin's
17 idea of engaging all of the reactor communities, but I think at an absolute
18 minimum you should do some special outreach efforts in the Midwest and the
19 Southeast and the Northeast where there's higher concentrations of reactors. I
20 would say at least one hearing in the Upper Midwest and one in the Plains and
21 also in the Southeast and New England.

22 And finally, I again want to echo Kevin's comments about the lack
23 of a clear proposal that we're dealing with and a lack of identified alternatives.
24 My organization would support a no-action alternative that would basically say
25 stop digging the hole that we've dug ourselves into, as Mary said. As I said, we

1 don't have a whole lot of confidence in our ability to safeguard this waste, and
2 that's not a reflection on your work, it's a reflection on the material that we're
3 dealing with and, therefore, we don't believe we should be making more of it.

4 Thanks.

5 CHIP CAMERON: Thank you. Thank you Katherine. Steve
6 Hamrick? And then we'll go to Dave Repka and Dick Mark and then Eileen
7 Supko and Dr. Young.

8 STEVE HAMRICK: Thank you, Chip. And I'll be brief because I
9 think Ellen and Don and some others have already covered most of the
10 comments I would like to make. I would like to thank you for the opportunity to
11 come and speak and that's helpful. It's been heartening to see the Commission
12 taking this issue seriously, both with -- first of all with the creation of the
13 directorate and staffing it so, you know, so well and forcefully. That makes it
14 obvious that the Commission is taking it seriously. Also with the 24-month
15 schedule that they've set forth is perhaps ambitious but it reflects the importance
16 of the issue and the licensing impact that's involved. The Commission also gave
17 some strong guidance in some of their documents, SRMs in this instance, as this
18 is a scoping meeting and some guidance on some scoping that I think I agree
19 with in terms of the fact that Commission indicated that we should be relying on
20 the existing 2010 analysis to the extent possible and really focusing the scope of
21 the review on the three issues that were identified by the court and also the
22 ability to rely on existing information, be it in the DOE EIS or existing NRC
23 information. I know there was a rulemaking petition a few years ago on spent
24 fuel pool fires and there has been a lot of work done in that area and so I know
25 a lot of that has been done. So, we don't need to be necessarily re-inventing the

1 wheel here. I was heartened, Paul, to hear you talk about the fact that we'll -- the
2 NRC will rely on that information to the extent it can do so. That's really it. Just
3 thank you for the opportunity and I appreciate it.

4 CHIP CAMERON: Thank you. Thank you for your comment,
5 Steve. Dave Repka? And is Dick Mark here? Okay, well after Dave we'll go to
6 Eileen. No. Okay.

7 DAVID REPKA: Okay, thanks, Chip. My name is David Repka, I'm
8 a partner in the law firm of Winston and Strawn based here in Washington, D.C.,
9 and I represent a number of companies that are applicants for new plant licenses
10 or renewed operating licenses. But having said that, my comments here today
11 are preliminary and they are my own.

12 First, I too want to echo some of the points that have been made by
13 Ellen Ginsberg on behalf of the Nuclear Energy Institute and by Don Silverman
14 and others that certainly the timing of this initiative is of the utmost importance.
15 It's something the Commission has recognized that licensing decisions are being
16 held in abeyance pending the outcome here. So keeping the schedule is
17 certainly a very important objective and goal for this effort.

18 The second thing is, I want to point out and I think that this group
19 already recognizes that some of the comments in the room today seem to reflect
20 the notion that the Commission has not before looked at the issue of spent fuel
21 storage and spent fuel disposal when, in fact, the Commission has spent a great
22 deal of effort over the years looking at both the environmental consequences of
23 extended storage, of onsite storage, of ultimate disposal through the Table S-3
24 rulemaking. So, these are all issues that the Commission has looked at before.
25 The Commission has even compiled, I think, a very substantial record on the

1 issue of spent fuel leaks -- spent fuel pool leaks as well as the issue of potential
2 spent fuel fire. So I think there's a great record that the Commission can draw
3 upon and should draw upon to help in this effort here, and I think, again, that's
4 something the Commission has recognized in chartering this group.

5 With respect to the scoping for this effort, which is really the topic
6 that's before us today, I think the defining principle needs to be the scope of the
7 remand from the D.C. Circuit. The D.C. Circuit specifically asked that the
8 Commission -- or required that the Commission under NEPA look at three issues;
9 one, the prospect of no repository being -- becoming available; second, wanted
10 further analysis of the issue of spent fuel pool leaks; and third, further analysis of
11 the issue of spent fuel pool fires. Where the latter, of course, the court was
12 focusing on the fact that were both probability and consequences of those fires
13 considered.

14 But I think those are the defining principles and we can get into as
15 this process goes forward what the substantive answer is, but I think what
16 concerned me a little as I looked at the way this staff presented some potential
17 scenarios today as a way of framing the analysis around scenarios of storage
18 onsite for mid-century, storage onsite to the end of the century versus no storage
19 available, and I think that that may come at the issue really in the reverse of the
20 way the court remanded the issue. The remand is to look at, number one, the
21 prospect and the consequences of no repository being available, and I think the
22 Commission has thrown out the idea that this is an issue that has been looked at
23 at length by the Department of Energy as a no-action alternative with respect to
24 Yucca Mountain, and I think that's certainly a very, very valid place to start in the
25 analysis. So, again, it's not that the Commission is ignoring the issue of no

1 repository, and it's not that you have nothing to build upon, I think, in fact, you do
2 have a substantial record to build upon.

3 But with respect to the issues of leaks and fires, certainly the
4 scenario of when a repository becomes available may inform those analysis but,
5 again, ultimately the question is what are the probability and consequences of
6 leaks, what are the probability and consequences of spent fuel fires? We're not
7 looking at -- the court certainly didn't require the agency to look at all issues and
8 all alternatives related to a mid-century availability scenario or an end of the
9 century availability scenario. I think that would really -- if you started from the
10 scenario and started defining consequences and alternatives to those scenarios
11 you get to be a much, much bigger task than what the court really requires and
12 what NEPA requires. So, again, the defining principle needs to be the issues on
13 the remand.

14 And, finally, I would say that there was some question raised today
15 about what is the alternative to be considered in the context of this particular
16 environmental impact statement? And I really submit that we are already in the
17 space of dealing with the alternative. The court remanded the question, but what
18 about the case where there is no repository available, and that is the alternative
19 to a repository. So, I think the question of what is the alternative here is a little bit
20 of a -- perhaps not the right question and it certainly raises hypothetical potentials
21 that don't make a lot of sense here because I think the alternative to no
22 repository is to have a repository and, in fact, that's what the Nuclear Waste
23 Policy Act contemplates and I think that's certainly what the nuclear industry
24 contemplates.

25 With that we certainly will continue to monitor the process and

1 comment at the available opportunities. I appreciate the opportunity to talk
2 today.

3 CHIP CAMERON: Thank you. Thank you, David. Is Dr. Young
4 here?

5 LIH YOUNG: Good afternoon. My name is Lih Young, I'm a Ph.D.
6 economist by training, but I am here to testify for the following purpose. First, to
7 join Riverkeeper, NRDC and other environmental and civic groups to support
8 solo and a vigorous investigation and analysis and as to improve the government
9 function, protect people, family, and communities from harmful damages and to
10 reduce health care costs. American people count on NRC to protect them and
11 don't depend on special interest group, the polluters or lobbyists to police
12 themselves and don't buy their claim that safeguard will hurt job.

13 Second is really to urge you that elimination of unfairness and
14 irresponsibility, there adverse impact on unfair election, unfair market
15 mechanism, and unjust influence of corporation entities or networks that cause
16 serious sociopolitical, media budget system problem and cost our society
17 tremendously. Briefly speaking first is to oppose corruption, unjust or unlawful
18 practices and policies. Two, to end all unfair, unjust, unlawful, or misleading
19 legislation, appropriation, subsidies, or use of land or resources. Three, to stop
20 endless abuse, waste, destruction, deprivation, victimization from local to global.
21 Fourth, to prosecute/eliminate murder, fraud, crime, unjust network -- you can
22 connect this with a hyphen -- which cause serious sociopolitical problem. Five, to
23 promote fairness, health, productivity, social lives, and wellbeing of general
24 public. Six, to protect people, family, and communities. Seven, to improve
25 government function considering social cost benefits. Eight, to resolve social

1 issues including various sociopolitical media legislation, budget election system
2 problem, especially those I have identified and my family have experienced. You
3 can see my candidate statement on website or blog on social issues local to
4 federal, or complaint at administrative and judicial levels.

5 And I have run for public office since '94 from local to federal, but I
6 want to remind you all those voter website can be tempered so that's part of the
7 problem. So, I would like you to prosecute and eliminate those murder, fraud,
8 crime, unjust network which is really robbery machine. Robber is not a capitalism.
9 Which are rampant private and public sectors, three branches, various agencies,
10 administrative and judicial levels, local, global including legal, judicial and core
11 personnels, law enforcement, health services, occupation, contractors,
12 impersonators, facilities which are continuing, ongoing, relaying, infiltrating every
13 segment of our lives including nonprofit civic organizations expanding local to
14 global with threat, coercion, falsification, misleading, destruction, tampering,
15 destroying, consuming evidence, documents, witness, endless abuse of power,
16 law, authority, unlawful, immoral acts, official misconduct, waste, unjust
17 practices, scheme and scam, manipulation, monitoring influences, depravation of
18 people's lives, rights, resources, properties, homes, cars, reputation, obstruction,
19 destruction activities, and personal business or civic political affiliation et cetera,
20 and destroyed individual family business community.

21 Society's vision is justice, peace, close to homelessness, poverty,
22 civil human rights [unintelligible] work, serious sociopolitical election media
23 legislation, budget population system problem, destroy the essence of
24 democracy, fair market mechanism, and so-called capitalism, and this costs our
25 society tremendously. And I would like to submit this draft with a 10-4

1 attachment, and which are serious [unintelligible] you have identified a lot of
2 problem. And then again, some evidence in a document can be destroyed, even
3 by court or by law enforcement, and so I would like you to relive stuff from just
4 most basic things to establish accountability in how you work from here directly,
5 and a difference of your achievement. And I would like to have energy, provide
6 leadership, and this is the most critical moment. And this year, I run for U.S.
7 Senate, so you will see how they destroy our democracy and our election
8 process. So let's start from here, and I would like to submit this.

9 CHIP CAMERON: Okay. Thank you very much, Dr. Young. Okay,
10 and Dr. Young is with Riverkeeper. Thank you.

11 LIH YOUNG: Yeah. Thank you.

12 CHIP CAMERON: We're going to go back to the phones. We have
13 a few people on the phones that we're going to hear from, and I guess I'd like to
14 go to Judy -- Judy Treichel. Judy?

15 JUDY TREICHEL: Hello. Can you hear me?

16 CHIP CAMERON: Yes.

17 JUDY TREICHEL: Okay. Thank you very much for the opportunity
18 to speak. I just want to say a very few things that back up a lot of what has
19 already been said. The U.S. has a mountain of waste that's 70 years high, and
20 the idea that NRC can effectively write a rule and prepare an EIS in two years to
21 update a waste confidence finding shows a complete lack of understanding of
22 what the public really expects. The NRC must focus on a rule that will provide
23 public safety and take the time necessary without any imposed deadlines. The
24 public's been asked to provide scoping comments without any real proposed
25 actions. You just have timeframes, which is essentially asking us to just take

1 shots in the dark. It also sounds to me like you don't have a clear picture of what
2 this EIS would analyze also.

3 So at the very least, at the end of this initial public comment period,
4 I think NRC should use the comments you receive to publish a new Federal
5 Register Notice that would spell out clear descriptions of proposed actions,
6 including a no-action alternative that would state no licenses would be issued
7 during this time. With that information, we can then provide scoping comments
8 of value to you, and then you can use that to prepare a draft EIS. This will be an
9 Environmental Impact Statement that addresses safety issues both current and
10 future for a fleet of existing power plants, many different in design and in
11 condition, and most adjacent to water sources. There's almost nothing that can
12 be considered generically. Writing an EIS requires the input and expertise from
13 many sources and must be -- not be driven by a deadline. Thank you very much.

14 CHIP CAMERON: Okay. Thank you, Judy. Is Margaret Sheehan
15 on the phone?

16 MARGARET SHEEHAN: Yes, I am.

17 CHIP CAMERON: Hi, Margaret. We're ready to listen to you.

18 MARGARET SHEEHAN: Thank you. My name is Margaret
19 Sheehan. I'm speaking on behalf of the Pilgrim Coalition, which is a network of
20 22 groups located in Massachusetts, statewide and local groups as well as
21 individuals who are concerned about the Pilgrim Nuclear Power Station, which is
22 located in Plymouth, Massachusetts. It's a 40-year-old Fukushima-style reactor
23 that has just been relicensed by the NRC for another 20 years. Our comments
24 on the scope of the EIS are as follows.

25 One, we support the position taken by the NRDC that the notice

1 should be withdrawn. Second, if it is not withdrawn, there should be an
2 extension for public comment to at least January 30th, 2012, as requested by the
3 other public-interest groups. Third, we would like to request a site-specific
4 hearing on the scoping and on the IES to be held in Plymouth, Massachusetts.
5 Plymouth has unique historic, ecological, and sociological features. It is one of
6 the most historic towns in the United States, and yet it has been turned into a
7 high-level radioactive waste dump due to the fact of Pilgrim's operation for the
8 last 40 years. Pilgrim is located close to Native American Wampanoag
9 communities on Martha's Vineyard and Mashpee, of whom have an interest in
10 the environmental impacts of the long-term waste storage.

11 Fourth, we oppose a generic environmental impact statement for
12 waste storage. Pilgrim is located on Cape Cod Bay, which has many unique
13 ecological features. It contains rare species habitat for the North Atlantic right
14 whale and contains a national marine sanctuary. Pilgrim sits on top of
15 Plymouth's Sole Source Aquifer, one of the most pristine and significant aquifers
16 on the East Coast. Pilgrim is already leaking radioactive tritium into this aquifer
17 and into Cape Cod Bay. Being located on the East Coast, Pilgrim was on
18 hurricane alert during the Hurricane Sandy event. The proposed dry cask
19 storage that Entergy is currently building is in the coastal zone and is in the
20 hurricane zone. This is a unique weather feature that needs to be taken into
21 account in a site-specific EIS.

22 Fifth and finally, Pilgrim has a number of site-specific security
23 issues, given its vulnerability from the sea and the fact that it is within 37 miles of
24 Boston's [inaudible]. According to recent evidence and testimony by the town's
25 emergency planning director, despite several incidents in the past two years,

1 there is still no emergency plan in place for a hostile incident by land or by air in
2 connection with Pilgrim's waste storage facility.

3 Thank you for the opportunity to comment, and we look forward to
4 being engaged in the process in the future.

5 CHIP CAMERON: Okay, thank you, Margaret. We have Scott
6 Portszline, Susan Shapiro, and Stewart Horn on the phone, and we're going to
7 go to Scott. Scott, are you ready to talk to us?

8 SCOTT PORTSZLINE: Yes. How do I unmute my phone?

9 CHIP CAMERON: Pardon me?

10 SCOTT PORTSZLINE: How do I unmute my phone, or is it good to
11 go?

12 CHIP CAMERON: You're good to go so far.

13 SCOTT PORTSZLINE: Oh, excuse me. I'm sorry, Chip.

14 CHIP CAMERON: Okay.

15 SCOTT PORTSZLINE: I just want to make two points. I would like
16 to see the scoping be for terrorism purposes, the line-of-sight issues to the spent
17 fuel cask storage from the public, and secondly, the probabilic [sic] risk analysis
18 of explosives and explosions and the forces caused by explosions at spent fuel
19 casks is not sufficient. And I won't disclose the setback distances that we used
20 for the study, but they're far short of what actually exists at some of the nuclear
21 plants in this country. So the -- that has to be corrected and could easily be
22 challenged in court, so I would hope that they would take a look at that before it
23 has to go that far. Chip, if I've got to ask you a quick question, just a loaded
24 question for you. What was the reason the -- John from New York could not use
25 the PowerPoint presentation?

1 CHIP CAMERON: Oh, because in order to make things more
2 efficient, we have asked people not to make presentations. Often people want to
3 do the PowerPoint presentations, but we felt that we wouldn't really be able to do
4 justice to being able to listen to everybody who talked, and actually, John did a
5 wonderful job of doing his PowerPoint presentation, but not as effectively,
6 unfortunately, as if it would have been a regular one, but that's the reason --
7 that's the reason, Scott.

8 SCOTT PORTSZLINE: Okay. Well, I'll discuss that with John, but
9 you have to threaten to sue, all the fellows there to allow you to use the
10 PowerPoint, and that's worked for me in the past. All right, thank you.

11 CHIP CAMERON: Okay. Thanks, Scott. Susan? Susan Shapiro?

12 SUSAN SHAPIRO: Hello, can you hear me?

13 CHIP CAMERON: Yes.

14 SUSAN SHAPIRO: All right. Hi. I agree with many of the
15 comments that have already been said, specifically Judith Treichel's comments,
16 and I support her comments that this should be a preliminary scoping, because
17 we do not have the action that is -- we're scoping about at this point, so it's unfair
18 to ask the public to present this way, but these are my initial comments, which I
19 will also submit in writing.

20 One, we -- the scoping should include a very clear definition of what
21 reasonable assurance is. One does not exist currently, and it's very important to
22 understand that in terms of the long-term impacts of the waste confidence issue.
23 We need to look at the cumulative impacts of the leaks and fires of the spent fuel
24 pools on cumulative health impacts on the most vulnerable members of our
25 society. That would include impacts on water supply and food supplies. We

1 need to -- you need to consider the requirements of continuous monitoring of
2 planned and unplanned releases into the air and water and standards, and based
3 on the most vulnerable members of our communities and also on the public
4 awareness of what the daily releases are, both planned and unplanned. We
5 need -- the scoping must include a long-term evaluation of the heat waste
6 impacts on thermal pollution under NEPA and on the heat waste impacts of the
7 integrity on aging materials, including cladding, storage systems, and spent fuel.
8 This was one of the big underlying problems at Yucca Mountain, and it must be
9 addressed in any kind of waste-confidence rule.

10 The public impact cannot -- this cannot be a generic -- considered
11 generic, because each site, as has been stated over and over again, has its
12 specific individual features and concerns, and it must be site-specific evaluation.
13 One of the Blue Ribbon Commission's recommendation was to make sure that
14 the public was engaged and involved, otherwise it will fail again, as at Yucca
15 Mountain. And by only holding very limited public hearings, as you did with the
16 Blue Ribbon Commission, you've left out many -- you did in that evaluation leave
17 out many, many communities as well, including the Indian Point community and
18 many other communities, and I really think that if -- to do this properly, you need
19 to include all reactor communities, because we have now become long-term
20 storage waste dumps, and they are site-specific issues. If you're going to try to
21 do a generic study, then everyone needs to be considered.

22 The geological issues, including seismology and fracking impacts
23 must be looked at. Climate change impacts for the next 100, 200, 300 years
24 must be in scope. Fiscal responsibility, as was raised before in the economic
25 impacts. HOSS, hardened on-site storage, as an alternative must be looked at,

1 and the impacts of fire exemptions, which have been given in the past, and the
2 impacts that will have on spent fuel fires must be looked at, as well as terrorism
3 and sabotage, both from the land and the air, and the potential for cyber
4 terrorism, which has not been considered.

5 The other big thing that I believe must be considered in scope is
6 states' rights. Since the original siting for nuclear plants was done with an
7 understanding that the waste would be removed and handled by the federal
8 government and not left on the site indefinitely, as -- which it now will be, at least
9 for the long term as we foresee, and that significantly changes the states'
10 responsibility, and it's a new use of the land. Therefore it may have tax
11 implications and [inaudible] implications.

12 I will close by once -- by specifically requesting a hearing in the
13 New York Indian Point area. Thank you.

14 CHIP CAMERON: Thank you, Susan. And operator, could we go
15 to Stewart Horn? Stewart?

16 STEWART HORN: Hello?

17 CHIP CAMERON: Yes. We're listening.

18 STEWART HORN: I live in New Hope, Alabama, which is
19 downwind of the TVA's Browns Ferry facility, and we have a very dangerous and
20 threatening waste storage situation at Browns Ferry. It's approaching its 40-year
21 lifetime, and I think all fuel is onsite stored above the fuel pool. They may have
22 put some of it in the dry cask, but I don't think it's been very much. Last -- two
23 years ago, we had an EF5 tornado that demolished North Alabama and passed
24 within five miles of Browns Ferry. And the Browns Ferry fuel pools only have
25 metal roofs above them, and we're of the conviction that an EF5 tornado would

1 demolish those roofs and suck all the fuel pool out of there in the event of a hit by
2 a EF5 tornado or possibly a lesser one.

3 There's another big issue with this facility, which is, it also has the
4 defective hardened vents in the Mark 1 reactors of the Fukushima type, and my
5 understanding is that at Fukushima, all three hardened vents failed, and that's
6 why the reactor buildings blew up. And what's going to happen at Browns Ferry
7 if we get into an overpressure situation and the hardened vent fails there? We're
8 going to have a disaster like Fukushima. We think that the fuel pools should be
9 moved off the top of those dangerous reactors, which are of poor design, and
10 that dry cask storage should be utilized instead of the fuel pools. I wish all of this
11 could be addressed, and we're very much opposed to putting MOX fuel in
12 Browns Ferry reactors also. These reactors have a very poor life history, with
13 many events and many SCRAMs. That's enough. Thank you.

14 CHIP CAMERON: Okay. Thank you, Stuart. I think we're about
15 finished with the phones, but I was just notified -- Sara Barczak, are you -- are
16 you on again, Sara? Okay.

17 SARA BARCZAK: I'm sorry. I was just alerting you in the room
18 that the web telecast stops right at 4:00, so if there are any people watching that
19 way, they would then have to hang up --

20 CHIP CAMERON: Okay.

21 SARA BARCZAK: -- or get off their computer and call in. That's
22 all.

23 CHIP CAMERON: Thanks, Sara.

24 SARA BARCZAK: Sure.

25 CHIP CAMERON: And -- what's that? Oh, we're -- I guess it's

1 back. It's back. And I think we're about finished with the audience here in
2 Rockville, but I was just notified that there's a young attorney who wants to say a
3 brief comment. Jay Silberg.

4 JAY SILBERG: I'm Jay Silberg at Pillsbury Winthrop Shaw Pittman
5 Law Firm. I too am a grandparent and have been working on this issue for 40
6 years. Not quite as long as Chip, but I do appreciate NRC's efforts in setting up
7 the scoping meeting. I think you've gone well beyond what NEPA requires, well
8 beyond what the NRC requires, and unfortunately I think this is an example of
9 "no good deed goes unpunished" in terms of some of the comments that we've
10 heard today about wanting more, better, different scoping.

11 The thing we need to start with is, what is the issue we're here to
12 talk about today? The court said that waste confidence rulemaking is a major
13 federal action, and then they told the Commission to go back to square one and
14 re-look at that major federal action. The Commission's Federal Register Notice
15 identified in the very first paragraph that what we're here today to talk about is
16 updating its waste confidence decision and rule. That is the major federal action.
17 That is what we're looking at today, I believe, in this process. And the
18 Commission's decision in CLI-12-16, August 7, identified what the alternatives
19 would be for that major federal action. They talked about a new rule, which is
20 what the Commission has said they're doing. It talked about a policy statement.
21 It talked about an EA, Environmental Assessment. It talked about an EIS. Also,
22 it talked about site-specific analyses. Those are the alternatives. We're not here
23 -- I believe we're not here today to talk about a programmatic re-analysis of
24 nuclear power or indeed of other forms of power, as we've heard from some of
25 the comments.

1 So the issue is a major federal action. It's the waste confidence
2 rulemaking. The other alternatives to that are, don't have a rulemaking. And the
3 Commission has laid those out. Can it be a generic rulemaking? We've heard a
4 lot of comments that says, "Well, we can't do generic rules, because all plants
5 are unique." The Commission has a long history of doing generic rules: Table S-
6 3, Table S-4, the license renewal rule. The Supreme Court has blessed that
7 process in multiple cases. The D.C. Circuit, in the case that sent this rule back,
8 blessed the generic process. Of course, it has to be done correctly. The
9 bounding analysis has to be done correctly, and one of the things that I would
10 hope that people will do when they comment on the draft EIS is to comment on
11 whether that process was done correctly. The examples we've heard about site-
12 specific conditions apply equally to any other generic rule that's -- that the
13 Commission has been on. Yes, every plant is different. That's why you have
14 bounding conditions. Every plant is unique. That's why we have bounding
15 conditions.

16 In terms of the documents that you ought to rely upon, we've heard
17 some comments that would disqualify documents that were drafted by DOE,
18 whether or not they were adopted by NRC, I think, is irrelevant. You ought to
19 look at all relevant ideas, whether they're drafted by DOE, whether they're
20 drafted by environmental groups, whether they're drafted by NRC people,
21 whether they're drafted by industry. The question is, are those documents
22 reliable and trustworthy? You can't identify those in advance. The scoping
23 process is not the time to identify what will be relied on in the draft Environmental
24 Impact Statement and ultimately in the final Environmental Impact Statement. I
25 think it would be a mistake for you to try to identify in advance at this early stage

1 what it is you're going to rely on. If people want to comment on that, that's fine.
2 But to require that you put that information out for the public, I think, is an
3 improper use and an overexpansion of the scoping process.

4 So I hope you will cast your net broadly. I hope you will look at the
5 wide variety of documents that are out there on all of these issues. We're not
6 starting from an empty table. We know a lot about all these issues. It's not like
7 the Commission, DOE, environmentalists, ourselves and the industry have never
8 thought about spent fuel pool fires or pool leaks or what to do with waste or what
9 happens if DOE doesn't have a repository. Cast your net widely -- wide -- widely
10 use it -- use your skills wisely, and I think, clearly, a two-year process ought to be
11 enough to come up with a very supportable and credible EIS. Thank you.

12 CHIP CAMERON: Okay, thank you, Jay. I would just thank all of
13 you for being here and following the ground rules, and I think we're -- we've
14 heard from everybody, including those on the phone, so I'm going to ask Keith
15 McConnell, the director of the directorate, to close the meeting out for us.

16 KEITH MCCONNELL: Yeah, I would reiterate what Chip said. We
17 do thank everyone for participating. We particularly thank the commenters. The
18 comments were focused, respectful of the time of others, and helpful to us. I
19 would remind everybody of the webcast tonight from 9:00 to 12:00 Eastern Time
20 and also the opportunities in December for the webinars on December 5th and
21 6th. And with that, we'd like to close the meeting. Thank you very much.

22 [end of afternoon session]

**Documents Submitted at 11/14/2012 Waste
Confidence Public Scoping Meeting
Afternoon Session**

Testimony of the Honorable Ronald Johnson
Secretary, Prairie Island Indian Community Tribal Council
Nuclear Regulatory Commission on Waste Confidence EIS
November 14, 2012

Good afternoon, my name is Ron Johnson and I am the Secretary of the Prairie Island Indian Community Tribal Council. Thank you for the opportunity to provide these preliminary comments regarding the scope of the proposed Waste Confidence Environmental Impact Statement (EIS). We plan to submit detailed written comments by the January 2, 2013 deadline.

The Prairie Island Indian Community is among the closest communities in the nation to a nuclear power plant and its on-site spent fuel storage facility. The Prairie Island Nuclear Generating Plant (PINGP) and independent spent fuel storage installation (ISFSI) are located on the ancestral homeland of the Mdewakanton Dakota and immediately adjacent to our current reservation. The Prairie Island ISFSI is just 600 yards from tribal members' homes. Other homes, our church, our community center, our elder center, our government headquarters, our gaming enterprise and other community facilities are located within a one mile of the ISFSI.

The Prairie Island ISFSI is currently licensed by the NRC to store waste in 48 casks. Northern States Power Company (doing business as Xcel Energy) is currently seeking to renew its ISFSI license for an additional 40 years. We are a Cooperating Agency for purposes of developing the Environmental Assessment for the ISFSI license renewal. This EA could be helpful in informing the Waste Confidence EIS.

Assuming that the two reactors at Prairie Island cease operations in 2034 at the end of their extended license, there will be enough nuclear waste for 98 casks.

The ISFSI at Prairie Island was initially proposed in the early 1990s to be temporary measure to keep the plant running and plant personnel working until Yucca Mountain could be opened. Unfortunately, the concerns we expressed way back then have become the reality – the so-called *interim* or *temporary* solution looks more permanent by the day.

We are here today to discuss the scope of the EIS for an update to the NRC's Waste Confidence Decision and Temporary Storage Rule. While we are pleased that the NRC will be evaluating the environmental impacts on-site nuclear waste storage for periods of time far longer than originally anticipated, we remain concerned that this will be just another update that kicks the can down the road a few decades further without any certainty or assurance that waste will ever leave. We have lost confidence in the Waste Confidence Decision.

The US Court of Appeals for the District of Columbia Circuit struck down the Waste Confidence Decision's Finding 2 — that reasonable assurance exists that sufficient geologic repository capacity will be available for disposal of high-level waste and spent nuclear fuel “when necessary”, and Finding 4 — that reasonable assurance exists that spent fuel can be safely stored at plants for at least sixty years beyond the licenses life of a plant without significant environmental impacts, in a combination of spent fuel pool storage and either an onsite or offsite dry cask storage system.

With respect to Finding 2, in the absence of a repository (or even a proposed site identified) now thirty years after the Nuclear Waste Policy Act was enacted, we don't believe there can be reasonable assurance that sufficient geologic repository capacity will ever be available. And with respect to Finding 4, we remain highly skeptical that reasonable assurances can exist for safe onsite storage for multiple decades longer than original intended, particularly based on a generic, non-site-specific analysis.

With respect to the scope of the EIS, we have a few questions:

Guidance

It is not clear which NRC guidance documents will be used to guide the development of the EIS. Knowing whether the NRC will use NUREG-1748 or some other guidance document will help us and others develop useful scoping comments.

Site-Specific Impacts

The Federal Register Notice stated that the “analysis of environmental impacts for this effort would be principally intended to provide input to decision-making for updating the Waste Confidence Decision and Rule and would not involve analysis of site-specific issues.” We question how the NRC could conduct an Environmental Justice analysis generically, as Environmental Justice issues and concerns are, by their very nature, site-specific.

Since the Court concluded that the NRC failed to properly examine the risk of spent fuel pool leaks, we fail to see how the environmental impacts of spent fuel spent pool leaks can be evaluated generically as each spent fuel pool is sited in a unique environment, and thus the hazards and risks of leaks are site-specific.

Tribal Consultation

The Federal Register Notice does not mention how the NRC plans to consult with any impacted federally recognized tribes. Federally recognized Indian tribes have an expectation that they will be consulted on a government-to-government basis. Tribes are not the public and should not be treated as such.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, states: the United States has a unique legal relationship with Indian Tribal governments; the United States recognizes the right of Indian Tribes to self-government and tribal sovereignty; each agency shall have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies which affect the Tribe.

Simply put, the NRC has an obligation to consult with impacted federally recognized Indian tribes on a government-to-government basis before decisions are made.

Time frame of Proposed Action

In previous NRC environmental impact statements or environmental assessments in support of a licensing action, a time frame is provided. For instance, the Prairie Island ISFSI is currently

licensed for a 20-year period and the EA developed by the NRC in support of that decision evaluated environmental impacts over a 20-year period. It is not clear what time frame the NRC intends to use in the Waste Confidence EIS. Unfortunately, the time periods in past Waste Confidence Decisions have been a moving target, first 30 years, then 60 years. We would like to see the scope include a specific time frame. It is our view that this moving target has allowed the federal government to abandon Yucca Mountain and start the process anew.

According to the Federal Register Notice, "possible scenarios to be analyzed in the EIS include temporary spent fuel storage after cessation of reactor operation until a repository is made available in either the middle of the century or at the end of the century, and storage of spent fuel if no repository is made available by the end of the century." Our preference would be to have the EIS bounded by a mid-century time-period.

Having said that, however, we believe that the DC Circuit's decision mandates that the alternatives analysis must include a robust analysis of the environmental impacts if no spent fuel repository is ever available. In other words, the NRC must analysis potential environmental impacts of indefinite onsite storage. We continue to believe that such an analysis must be done on a site-specific basis.

Based on our experience living in the shadow of the plant and its spent fuel storage site, we will continue to urge this Commission and the United States Government to honor the promise to remove the nuclear waste to a safe, secure, and permanent repository. No other community in the country should have to live in fear of nuclear power and nuclear waste the way our Community does.

Thank you. We will be providing detailed written comments.

Storage of Spent Nuclear Fuel
&
Waste Confidence Rulemaking

November 14, 2012
Public Scoping Meeting
Rockville, MD

Presentation of the State of New York



High Density Spent Fuel Pool

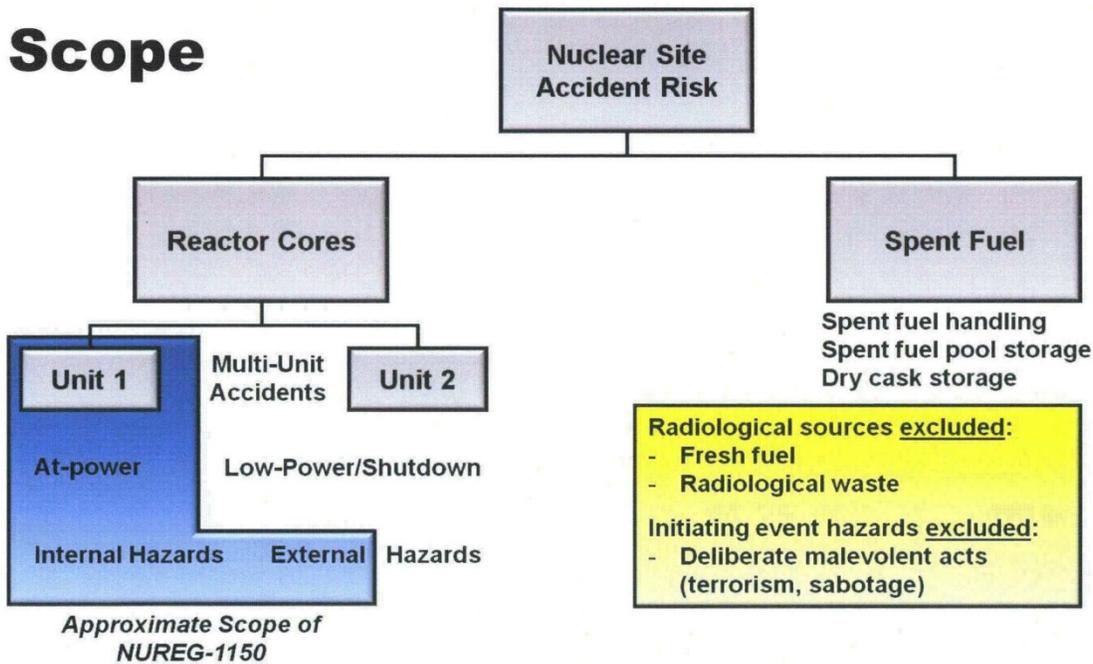
- Site-Specific Impacts

November 14, 2012



Option 3: Site Level 3 PRA

Scope



Source: Figure taken from slides prepared by NRC Staff: Nuclear Regulatory Commission Office of Nuclear Regulatory Research, *Severe Accidents and Options for Proceeding with Level 3 PRA Activities*, ML11209B927 (July 28, 2011).



Consideration of Other Site Radiological Sources

To be complete, estimation of total site accident risk should also include an assessment of the risk from accidents involving other site radiological sources, to include spent nuclear fuel.

Source: Nuclear Regulatory Commission, Options for Proceeding with Future Level 3 Probabilistic Risk Assessment Activities, SECY-11-0089, at 6, ML11090A042 (July 7, 2011).

November 14, 2012



Fukushima Daiichi Summary Display

Priority	Unit	STATUS AS OF 06:00 EDT (19:00 Local) - 03/16/2011
4	1	Core Status - Severe core damage (based on the amount of hydrogen generated). Radiation has been released. Possible RCS breach. (GE) Sea water injection to RPV.
		Containment - Primary apparently intact. Secondary Containment destroyed.
		Spent Fuel Pool - No information on SFP status.
3	2	Core Status - Severe core damage likely. Radiation release has occurred. Possible RCS breach (GE). Sea water injection to RPV.
		Containment - Primary apparently intact. Secondary Containment lost.
		Spent Fuel Pool - No information on SFP status. Some reports attribute smoke/steam coming from the SFP.
2	3	Core Status - Severe core damaged (based on the amount of hydrogen generated). Radiation has been released. Possible RCS breach. (GE). Sea water injection to RPV.
		Containment - Primary apparently intact. Secondary Containment destroyed.
		Spent Fuel Pool - May be in the same condition as Unit 4 SFP below. (Monninger)
1	4	Core off-loaded to Spent Fuel Pool. Secondary Containment destroyed. Walls of SFP have collapsed. No SFP cooling is possible at this time. TEPCO requests recommendations. (Monninger)
5	5	Shutdown since January 3, 2011. Core loaded in RPV. RPV/SFP levels lower than normal and decreasing. Unit 6 D/G providing make-up water to Unit 5. (IAEA).
6	6	Shutdown since August 14, 2010. Core loaded in RPV. RPV/SFP levels lower than normal. Unit 6 D/G providing make-up water to Unit 5. (IAEA).

Source: NRC ADAMS Accession No. ML12080A196 (frame 259 of 782) (placed on public ADAMS on March 23, 2012) (highlight added).

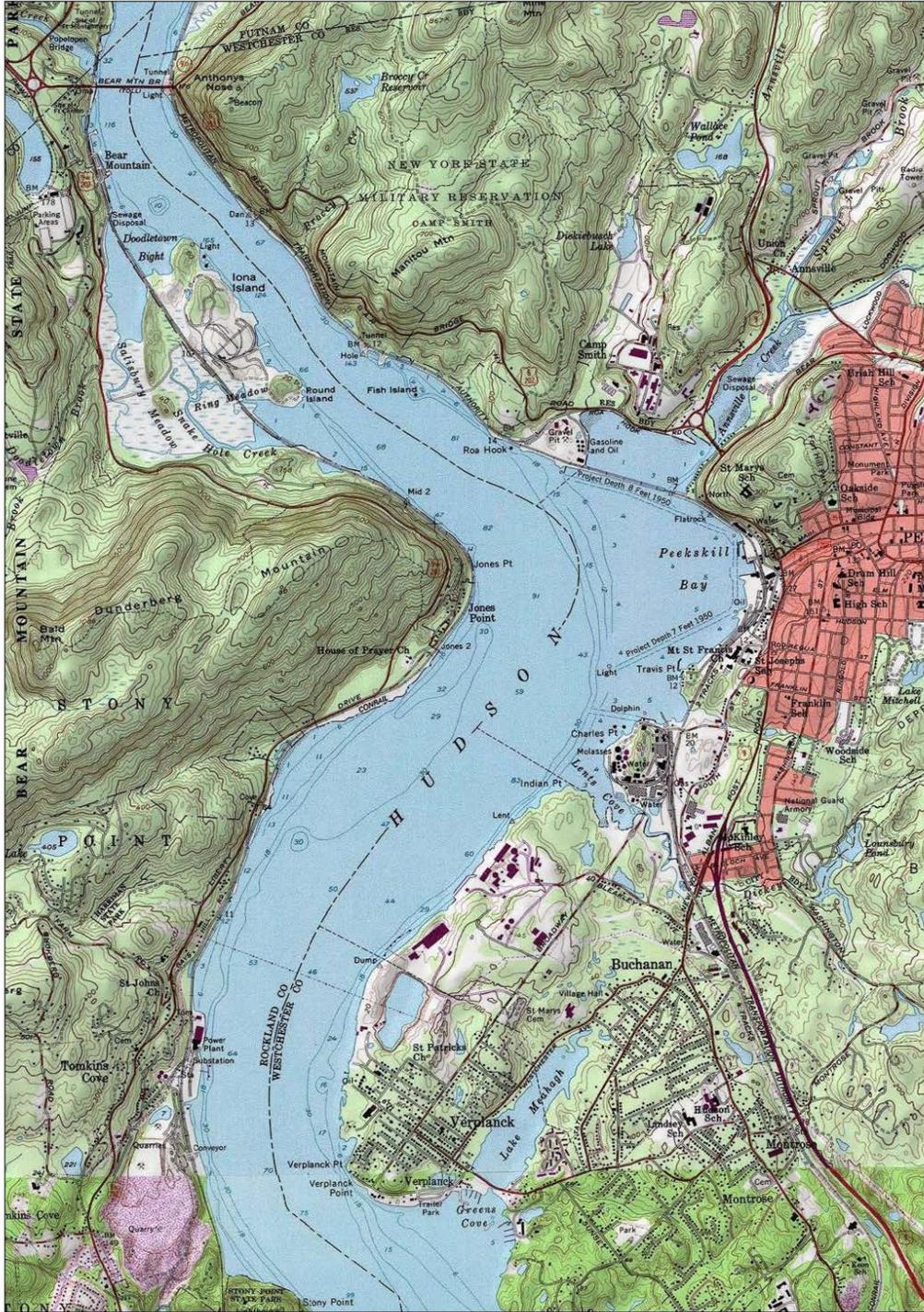
November 14, 2012



Site-Specific Impacts Related to On-Site
Storage of Spent Nuclear Fuel at the
Indian Point Facilities, Westchester
County, NY

November 14, 2012





0.5 0.25 0 0.5 Miles

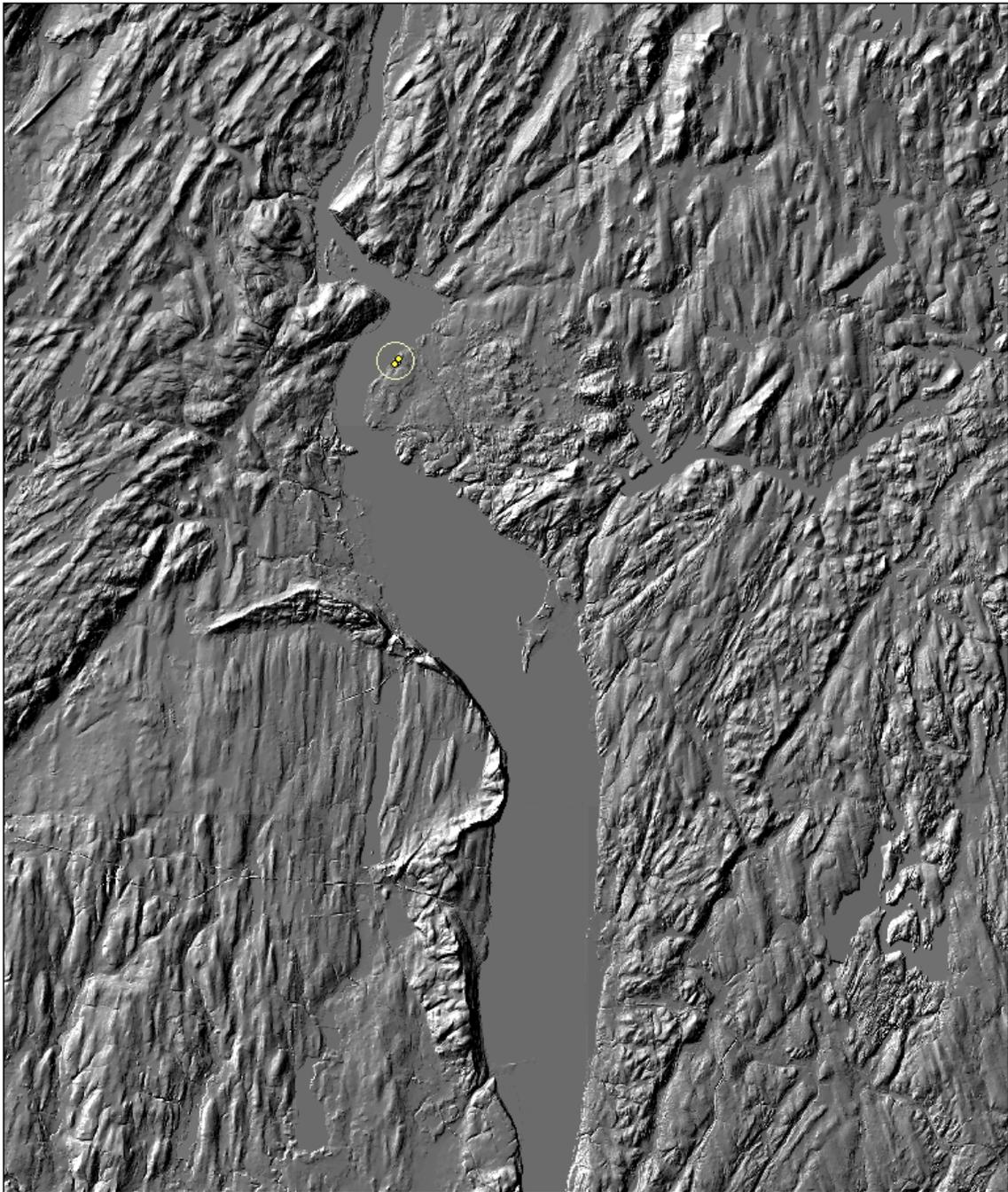
Topographic contours are in feet

Topographic Map from the National Geographic Society

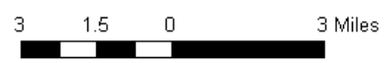
Publisher: ESRI, Redlands, CA; <http://resources.esri.com/arcgisonline/serve/ce/>
 (Prepared with ESRI GIS Software)



November 14, 2012



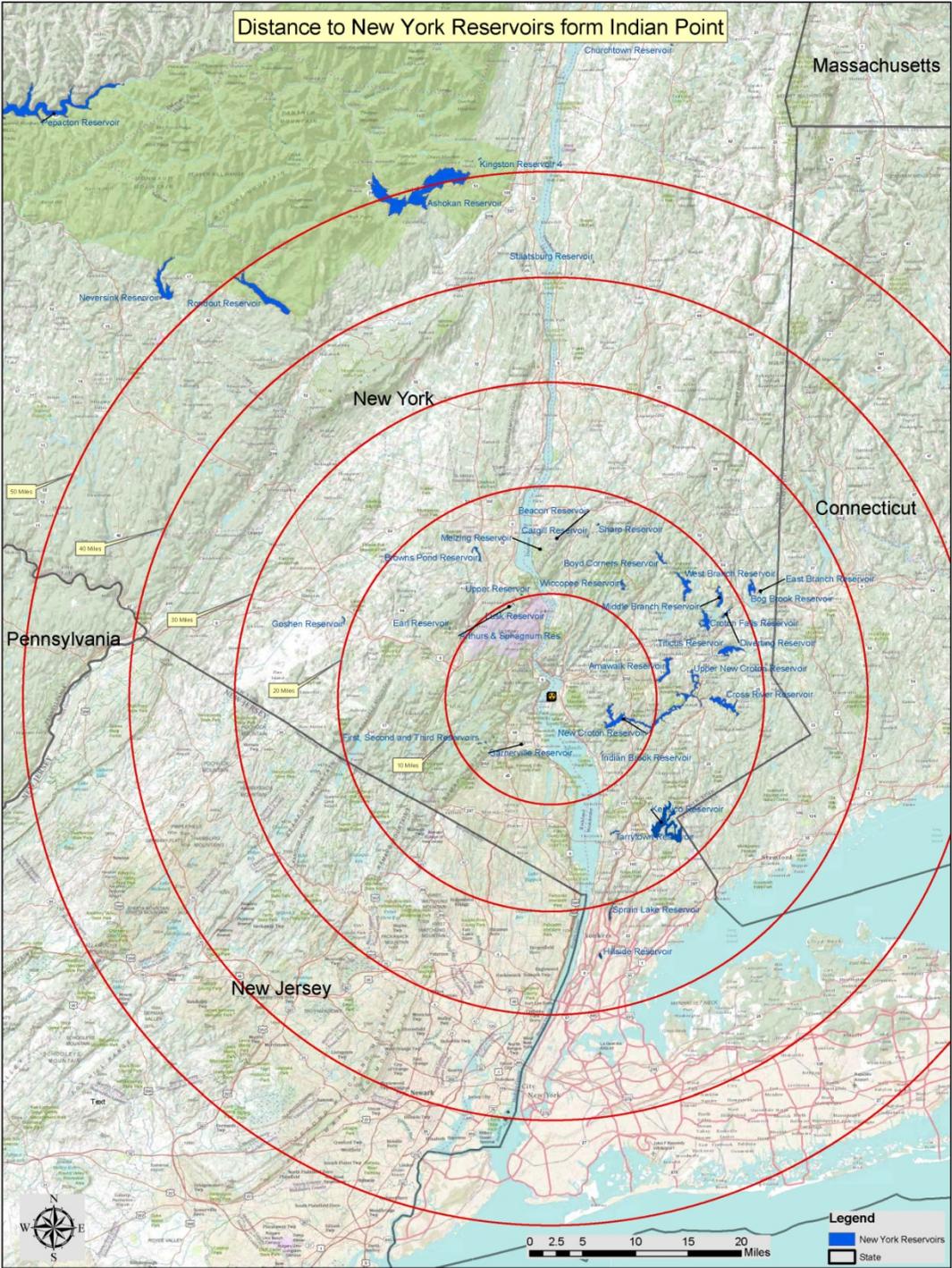
◆ Reactors



Hillshade from USGS 10 meter digital elevation model
(Prepared with ESRI GIS Software)



November 14, 2012



November 14, 2012



During the May 8, 2012 site visit to the Indian Point facilities by the Atomic Safety and Licensing Board, Entergy representatives made the following statements about Entergy's plans for spent nuclear fuel at Indian Point:

- (A) All of the spent fuel generated during since the start of commercial operation of Indian Point Unit 3 remains in the Indian Point Unit 3 spent fuel pool (as of the date of the site visit);
- (B) Entergy has no current plans to construct an additional dry cask storage area (in addition to the existing dry cask storage area); and
- (C) At the end of operation under any 20-year extension of the current operating licenses, Entergy estimates that the existing dry cask storage area would be filled to capacity and that the Indian Point Unit 2 spent fuel pool and the Indian Point Unit 3 spent fuel pool would be filled to capacity as well.

Source: State of New York, Riverkeeper, Inc., and Hudson River Sloop Clearwater's Joint Contention NYS-39/RK-EC-9/CW-EC-10 Concerning the On-Site Storage of Nuclear Waste at Indian Point, ¶ 32 (Jul. 8, 2012), ML12190A002.

November 14, 2012



- Alternatives
- Mitigation

November 14, 2012



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November 14, 2012



Principles for Safeguarding Nuclear Waste at Reactors

The following principles are based on the urgent need to protect the public from the threats posed by the current vulnerable storage of commercial irradiated fuel. The United States does not currently have a national policy for the permanent storage of high-level nuclear waste. The Obama administration has determined that the Yucca Mountain site, which has been mired in bad science and mismanagement, is not an option for geologic storage of nuclear waste. Unfortunately, reprocessing proponents have used this opportunity to promote reprocessing as the solution for managing our nuclear waste. Contrary to their claims, however, reprocessing is extremely expensive, highly polluting, and a proliferation threat, and will actually complicate the management of irradiated fuel. Nor will reprocessing obviate the need for, or "save space" in, a geologic repository.

The United States has a unique opportunity to re-evaluate our nuclear waste management plan. We can make wise decisions about safeguarding radioactive waste or go down the risky, costly, and proliferation prone path towards reprocessing.

The undersigned organizations' support for improving the protection of radioactive waste stored at reactor sites is a matter of security and is in no way an indication that we support nuclear power and the generation of more nuclear waste.

- **Require a low-density, open-frame layout for fuel pools:** Fuel pools were originally designed for temporary storage of a limited number of irradiated fuel assemblies in a low density, open frame configuration. As the amount of waste generated has increased beyond the designed capacity, the pools have been reorganized so that the concentration of fuel in the pools is nearly the same as that in operating reactor cores. If water is lost from a densely packed pool as the result of an attack or an accident, cooling by ambient air would likely be insufficient to prevent a fire, resulting in the release of large quantities of radioactivity to the environment. A low density, open-frame arrangement within fuel pools could allow enough air circulation to keep the fuel from catching fire. In order to achieve and maintain this arrangement within the pools, irradiated fuel must be transferred from the pools to dry storage within five years of being discharged from the reactor.

- **Establish hardened on-site storage (HOSS):** Irradiated fuel must be stored as safely as possible as close to the site of generation as possible. Waste moved from fuel pools must be safeguarded in hardened, on-site storage (HOSS) facilities. Transporting waste to interim away-from-reactor storage should not be done unless the reactor site is unsuitable for a HOSS facility and the move increases the safety and security of the waste. HOSS facilities

must not be regarded as a permanent waste solution, and thus should not be constructed deep underground. The waste must be retrievable, and real-time radiation and heat monitoring at the HOSS facility must be implemented for early detection of radiation releases and overheating. The overall objective of HOSS should be that the amount of releases projected in even severe attacks should be low enough that the storage system would be unattractive as a terrorist target. Design criteria that would correspond to the overall objective must include:

- Resistance to severe attacks, such as a direct hit by high-explosive or deeply penetrating weapons and munitions or a direct hit by a large aircraft loaded with fuel or a small aircraft loaded with fuel and/or explosives, without major releases.
 - Placement of individual canisters that makes detection difficult from outside the site boundary.
- **Protect fuel pools:** Irradiated fuel must be kept in pools for several years before it can be stored in a dry facility. The pools must be protected to withstand an attack by air, land, or water from a force at least equal in size and coordination to the 9/11 attacks. The security improvements must be approved by a panel of experts independent of the nuclear industry and the Nuclear Regulatory Commission.
- **Require periodic review of HOSS facilities and fuel pools:** An annual report consisting of the review of each HOSS facility and fuel pool should be prepared with meaningful participation from public stakeholders, regulators, and utility managers at each site. The report must be made publicly available and may include recommendations for actions to be taken.
- **Dedicate funding to local and state governments to independently monitor the sites:** Funding for monitoring the HOSS facilities at each site must be provided to affected local and state governments. The affected public must have the right to fully participate.
- **Prohibit reprocessing:** The reprocessing of irradiated fuel has not solved the nuclear waste problem in any country, and actually exacerbates it by creating numerous additional waste streams that must be managed. In addition to being expensive and polluting, reprocessing also increases nuclear weapons proliferation threats.

National

Leonor Tomero, Center for Arms Control and Non-Proliferation

John Issacs, Council for a Liveable World

Kevin Kamps, Beyond Nuclear

Lynn Thorp, Clean Water Action

Erich Pica, Friends of the Earth

Michele Boyd, Physicians for Social Responsibility

Jim Riccio, Greenpeace

Diane Kreiger, Nuclear Peace Age Foundation

Kevin Martin, Peace Action

Tyson Slocum, Public Citizen

Susan Gordon, Alliance for Nuclear Accountability

Arjun Makhijani, Institute for Energy and Environmental Research

Ken Bossong, SUN Day Campaign

Michael Mariotte, Nuclear Information and Resource Service

Anna Aurilio, Environment America

Winona La Duke, Honor the Earth

Dan Becker, Safe Climate Campaign

Dave Hamilton, Sierra Club

Geoffrey Fettus, Natural Resources Defense Council

Ed Lyman, Union of Concerned Scientists

Susan Shaer, Women's Action for New Directions (WAND)

Alaska

Stacy Fritz, No Nukes North

Alabama

Garry Morgan, Bellefonte Efficiency and Sustainability Team, Alabama Chapter of BREDL

Tom Moss, North Alabama Peace Network

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Stephen M. Brittle, Don't Waste Arizona

Jack and Felice Cohen-Joppa, Nuclear Resister

Patricia Birnie, GE Stockholder's Alliance

Russell Lowes, SafeEnergyAnalyst.org

Barbara Warren, Arizona Physicians for Social Responsibility

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Rochelle Becker, Alliance for Nuclear Responsibility CA

David Hartsough, PEACEWORKERS

Jane Williams, California Communities Against Toxics

Roland Valentine, Desert Citizens Against Pollution

Mary Beth Brangan, Ecological Options Network (EON)

Betty Winholz, SAVE THE PARK

Jacqueline Cabasso, Western States Legal Foundation

Molly Johnson, Grandmothers for Peace-San Luis Obispo County Chapter

Linda Seeley, Terra Foundation

Jane Swanson, San Luis Obispo Mothers For Peace Action Committee

Marylia Kelley, Tri-Valley CARES

Michael Welch, Redwood Alliance

Enid Schreiber, Center for Safe Energy

Jennifer Olarana Viereck, Healing Ourselves and Mother Earth

Dan Hirsch, Committee to Bridge the Gap

Pamela Meidell, Atomic Mirror

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Bob Kinsey, Colorado Coalition for the Prevention of Nuclear War

Sharyn Cunningham, Colorado Citizens Against Toxic Waste, Inc.

Judith Mohling, Rocky Mountain Peace and Justice Center

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Nancy Burton, Connecticut Coalition Against Millstone

Judi Friedman, People's Action for Clean Energy

Sal Mangiagli, Connecticut Citizens Action Network, Haddam Chapter

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Louis Clark, Government Accountability Project

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Alan Muller, Green Delaware

Florida

Bob Krasowski, Florida Alliance for A Clean Environment, The Zero Waste Collier County Group

Georgia

Tom Ferguson, Foundatoin for A Global Community

Bobbie Paul, Georgia WAND

Glenn Carroll, Nuclear Watch South

Bob Darby, Food Not Bombs, Atlanta

Hawaii

Henry Curtis, Life of the Land

Iowa

Maureen McCue, PSR Iowa

Idaho

Beatrice Brailsford, Snake River Alliance

Chuck Broschious, Environmental Defense Institute

Illinois

Dave Kraft, Nuclear Energy Information Service

Carolyn Treadway, No New Nukes

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Grant Smith, Citizens Action Coalition of Indiana

John Blair, ValleyWatch, Inc.

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Dave Pack, Kansas City Peaceworks

Anne Suellentrop, Kansas City PSR

Kentucky

Mary Davis, Earth Island Institute

Louisiana

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Deb Katz, Citizens Awareness Network

Mary Lampert, Pilgrim Watch

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Johanna Neumann, Maryland PIRG

Max Obuszewski, Baltimore Nonviolence Center

Lucy Duff, Peace and Justice Coalition-Prince George's County

Maine

William S. Linnell, Cheaper, Safer Power

Bruce Gagnon, Global Network Against Weapons & Nuclear Power in Space

Michigan

Keith Gunter, Citizens Resistance at Fermi Two

Michael Keegan, Coalition for a Nuclear Free Great Lakes

Georgia Donovan, Izaak Walton League-Dwight Lydell Chapter

Terry Miller, Lone Tree Council

Patricia Gillis, Voices for Earth Justice

Alice Hirt, Don't Waste Michigan

Nancy Seubert, IHM Justice, Peace, and Sustainability Office

Lynn Howard Ehrle, International Science Oversight Board-Organic Consumers Association

Kay Cumbow, Citizens for Alternatives to Chemical Contamination

Ronald and Joyce Mason, Swords Into Plowshares Peace Center and Gallery

David Gard, Michigan Environmental Council

Steve Senesi, Kalamazoo Non-Violent Opponents of War

Minnesota

Danene Provencher, West Metro Global Warming Action Group, Inc.

Glady Schmitz, Mankato Area Environmentalists

George Crocker, North American Water Office

Bruce Drew, Prairie Island Coalition

Missouri

Mark Haim, Missourians for Safe Energy

Kat Logan Smith, Missouri Coalition on the Environment

Mississippi

Louie Miller, Mississippi Sierra Club

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E.M.T O'Nan, Protect All Children's Environment

Avram Friedman, The Canary Coalition

Jim Warren, North Carolina Waste Awareness and Reduction Network

Janet Marsh, Blue Ridge Environmental Defense League

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Jodie L. White, The Environmental Awareness Committee, Save Our Sacred Earth Campaign

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Buffalo Bruce, Western Nebraska Resources Council

Tim Rinne, Nebraskans for Peace

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Will Hopkins, New Hampshire Peace Action

New Jersey

Paula Gotsch, Grandmothers, Mother and More for Energy Safety

Norm Cohen, Coalition for Peace and Justice-UNPLUG Salem Campaign

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Janet Greenwald, Citizens for Alternatives to Radioactive Dumping

Joni Arends, Concerned Citizens for Nuclear Safety

Scott Kovac, Nuclear Watch of New Mexico

Greg Mello, Los Alamos Study Group

Don Hancock, Southwest Research and Information Center

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Judy Treichel, Nevada Nuclear Waste Taskforce

Jim Haber, Nevada Desert Experience

New York

Joanne Hameister, Coalition on West Valley Nuclear Wastes

Anne Rabe, Center for Health, Environment, and Justice

James Rauch, For a Clean Tonawanda Site (FACTS)

Barbara Warren, Citizen's Environmental Coalition

Phillip Musegaas, Riverkeeper NY

Tim Judson, Central New York Citizens Awareness Network

Ohio

Chris Trepal, Earth Day Coalition

Terry Lodge, Toledo Coalition for Safe Energy

Sharon Cowdrey, Miamisburg Environmental Safety and Health Network

Oklahoma

Marilyn McCulloch, The Carrie Dickerson Foundation

Oregon

Dona Hippert, Oregon Toxics Alliance

Charles K. Johnson, Center for Energy Research

Nina Bell, Northwest Environmental Advocates

Kelly Campbell, Oregon Physicians for Social Responsibility

Gerry Pollet, Heart of America Northwest

Pennsylvania

David Hughes, Citizen Power

Katherine Dodge, Northwest Pennsylvania, Audobon Society

Gene Stilp, Taxpayers and Ratepayers United

Ernest Fuller, Concerned Citizens for SNEC Safety

Patricia Harner, Philadelphia Physicians for Social Responsibility

Dr. Lewis Cuthbert, Alliance for a Clean Environment

Rhode Island

Sheila Dormandy, Clean Water Action Rhode Island

South Carolina

Susan Corbett, South Carolina Sierra Club

Dr. Finian Taylor, Hilton Head for Peace

South Dakota

Deb McIntyre, South Dakota Peace and Justice Center

Charmaine White Face, Defenders of the Black Hills

Tennessee

Donald B. Clark, Network for Economic and Environmental Responsibility, United Church of Christ

Rev. Charles Lord, Caney Fork Headwaters Association

Rev. Douglas B. Hunt, Interfaith Power & Light

Ralph Hutchinson, Oak Ridge Environmental Peace Alliance

Rev. Walter Stark, Cumberland Countians for Peace and Justice

Ann Harris, We the People, Inc.

Texas

Eliza Brown, SEED Coalition

Mavis Belisle, JustPeace

Gary Stuard, Interfaith Environmental Alliance

Craig Tounet, Austin Physicians for Social Responsibility

Jill Johnston, Southwest Workers Union

Gary Zuckett, West Virginia Citizens Action
Group

Wyoming

Mary Woolen, Keep Yellowstone Nuclear Free

Utah

Margene Bullcreek, Ohngo Guadedah Devia
Awareness

Vanessa Pierce, HEAL Utah

Virginia

Scott Sklar, The Stella Group, Inc.

Elena Day, People's Alliance for Clean Energy

Vermont

Arnie Gundersen, Fairewinds Associates, Inc.

Clay Turnbull, New England Coalition on
Nuclear Pollution

Chris Williams, Vermont Citizens Awareness
Network

Margaret Harrington Tamulonis, Women's
International League for Peace

Washington

Tom Carpenter, Hanford Challenge

Wisconsin

Charlie Higley, Citizens Utility Board

Bonnie Urfer and John LaForge, Nukewatch
Wisconsin

Al Gedicks, Wisconsin Resources Protection
Council

Judy Miner, Wisconsin Network for Peace and
Justice

West Virginia



UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD

2300 Clarendon Boulevard, Suite 1300
Arlington, VA 22201

December 30, 2011

The Honorable Peter B. Lyons
Assistant Secretary for Nuclear Energy
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585-1290

Dear Dr. Lyons:

On September 13 and 14, 2011, the U.S. Nuclear Waste Technical Review Board held a public meeting in Salt Lake City, Utah. The majority of the meeting was devoted to presentations by U.S. Department of Energy (DOE) officials and technical experts from six DOE National Laboratories. Those talks provided the Board with a solid overview of the activities being funded by the Office of Used Nuclear Fuel Disposition Research and Development (NE-53).

In addition, the Board heard from an official of DOE's Office of Legacy Management (LM) and from three panels. The first panel discussed the draft *Report to the Secretary* by the Blue Ribbon Commission on America's Nuclear Future (BRC), the second described work undertaken by the Extended Storage Collaboration Program (ESCP), and the third explored some of the waste-management implications of using mixed-oxide fuel (MOX).

This letter conveys Board comments and recommendations related to work being sponsored by NE-53 within the Office of Nuclear Energy and other DOE activities discussed at the meeting.

Activities Sponsored by the Office of Used Nuclear Fuel Disposition Research and Development

Three topics were addressed by DOE officials and technical experts:

- Exploration of generic disposition options
- Studies of specific technical issues associated with developing a repository either in crystalline rock (granite) or clay/shale
- Research directed toward understanding the issues associated with extended storage and subsequent transport of spent nuclear fuel (SNF)

Generic Research on Options for the Disposition of High-Level Radioactive Waste (HLW) and SNF. Representatives from the NE-53 team, Dr. William Boyle, Dr. Peter Swift, and Dr. Mark Nutt, detailed efforts to develop that organization's strategic direction. Dr. Boyle provided an overview of his unit's administrative structure and budget, spoke about the major accomplishments to date, and set forth both short-term milestones and long-term goals. Dr. Swift described the technical basis for selecting four disposition options that NE-53 will focus on in the near term: deep-mined geologic repositories embedded in salt, granite, and clay/shale formations as well as deep borehole disposal. He also briefly identified several areas of research and development (R&D) that

NE-53 supported during the 2011 fiscal year. Dr. Nutt described the elaborate process, grounded in systems engineering techniques, used to construct the NE-53 "Research and Development Roadmap" to identify knowledge gaps and opportunities that offer the greatest potential contribution to achieving the national goal of disposing of high-activity nuclear waste in a deep geologic repository.

The Board understands and appreciates the rationale that motivated NE-53 to undertake these planning exercises. The results reported by Dr. Swift are consistent with work being undertaken by national waste management programs abroad that has already identified salt, granite, and clay/shale as the most promising host rocks in which to place a mined deep geologic repository. Given the wealth of relevant experience that has been gained in other countries, the Board strongly urges NE-53 to strengthen its technical interactions with the organizations that are responsible for waste management programs in those countries. This might enable DOE to learn from those programs and avoid duplicating their research. DOE also may be able to share costs with other programs on future work, which could free up funds that could be reallocated to other elements of the R&D program, such as research supporting development of the technical basis for extended dry storage of SNF.

In establishing research priorities, the Board believes that when compared with mined deep geologic disposal, the development of deep borehole disposition as a potential waste management option should be given a lower priority. The Board will address issues related to geologic disposal at its meeting planned for March 7, 2012, in Albuquerque, New Mexico, and the potential for deep borehole disposal will be discussed in more detail at that time.

Dr. Nutt's explanation of the "roadmap" was clear and detailed; however, the rankings were not truly quantitatively derived. They were, as Dr. Nutt acknowledged, based essentially on qualitative expert judgments. Learning more specifically on what basis this "living document" might evolve would have been valuable.

Studies of specific scientific and technical issues. Dr. Scott Painter from Los Alamos National Laboratory presented early results on discrete fracture network modeling undertaken in collaboration with the Swedish implementer, SKB. Dr. Jens Birkholzer from Lawrence Berkeley National Laboratory discussed investigations for supporting disposal of HLW and SNF in clay or shale host rocks. He focused on a key technical issue: the evolution of the thermal-hydraulic-mechanical-chemical disturbed zone surrounding the waste package following emplacement. He also described the possibility of validating the results of these studies against field data from studies that might be conducted in Switzerland or Belgium. The Board believes that both these efforts represent cutting-edge R&D. Moreover, both areas of work underscore the Board's view that NE-53 should intensify its technical interactions with other national programs.

Extended storage and subsequent transportation of spent nuclear fuel. Dr. Brady Hanson from Pacific Northwest National Laboratory presented the results of DOE's analysis of knowledge gaps related to extended storage of SNF from the current US fleet of light-water reactors before transportation to a centralized storage or reprocessing facility or a repository site. The Board's comments on this analysis, together with observations and recommendations concerning the R&D program that DOE proposes to support a program of extended dry storage, are recorded in the Board's December 8, 2011, letter to Dr. Monica Regalbuto concerning DOE's draft gap analysis report.¹

¹ *Gap Analysis to Support Extended Storage of Used Nuclear Fuel*, prepared by National Laboratory staff for the Used Fuel Disposition Campaign of the U.S. Department of Energy (DOE) Office of Nuclear Energy, June 30, 2011.

Mr. Paul McConnell from Sandia National Laboratories discussed the R&D priorities identified in the draft gap analysis report as being required in the near term, medium term, and very long term to support transportation of SNF following extended storage. He also identified the lead National Laboratories for the main program components. Dr. John Wagner from Oak Ridge National Laboratory outlined the engineering analysis required to support extended storage and subsequent transportation of SNF, including an integrated approach to addressing safety issues.

Our December 8 letter to Dr. Regalbuto notes that the Board's report² on extended storage of SNF identifies R&D requirements similar to those included in DOE's draft gap analysis report. However, the Board believes that there are other issues associated with extended storage of SNF that also should be addressed by DOE in developing an integrated approach to the management of SNF under the Nuclear Waste Policy Act. Three such issues are described below.

- The potential for operations being undertaken today that limit future options in managing SNF and HLW. One example of this is the continued use of a wide range of SNF container designs for dry-storage systems. As was the case in the design of the fuel-handling facilities for the Yucca Mountain repository, the lack of a standardized container design, or at most a small range of designs, can result in additional complexity at later stages of the waste management system.
- The dose and cost implications of the need to repackage SNF. An initial assessment by the Board indicates that there necessarily would be a significant additional dose to operators from the need to repackage fuel after storage and before repository disposal. Reducing the need to repackage SNF before disposal would unquestionably reduce the dose to plant operations staff. Estimating the dollar cost of repackaging is beyond the Board's mandate, but an appropriate observation is that there inevitably are significant costs associated with repackaging SNF, and to the extent this can be avoided those costs can be reduced.
- The implications of a requirement for early removal of SNF from reactor storage pools, in response to the events at the Fukushima site in Japan in March 2011. The Board believes that a careful review of the implications of such a change for the nation's long-term SNF management system should be undertaken. Among the factors that should be considered are the current trend toward larger dry-storage containers and higher fuel burnups that will require longer onsite storage before transportation to a reprocessing or disposal facility and the practicality of establishing the industrial capacity needed to manufacture the large number of additional dry-storage systems that would be required. The Board estimates that moving all SNF that has been discharged for more than 10 years into dry storage, for example by 2020, would require a significant increase in fabrication capacity for dry-storage systems. Once the backlog has been dealt with, however, demand would fall again to a level that matches the actual rate of discharge of SNF. It may be difficult for vendors to respond to this relatively short-term increase in demand, both in terms of the fabrication requirements and in managing the accompanying increase and decrease in the size of the production workforce, the training requirements, and an increase in the need for quality assurance staff. As mentioned above, estimating the dollar cost is beyond the Board's mandate, but an appropriate observation is that there would inevitably be significant cost implications from the need for vendors to recover over a period of only 10 years the capital investment for establishing increased production capacity.

² *Evaluation of the Technical Basis for Extended Dry Storage and Transportation of Used Nuclear Fuel – Executive Summary*, U.S. Nuclear Waste Technical Review Board, December 2010.

Office of Legacy Management's Preservation of the Documents from the Yucca Mountain Project

In its May 24, 2010, response to the Yucca Mountain licensing board, DOE stated that [It] had contacted the Nuclear Waste Technical Review Board about the NWTRB's interest in providing independent oversight of DOE's actions in preserving the scientific information that has been developed by OCRWM [Office of Civilian Radioactive Waste Management]. The NWTRB could thus review the planned disposition of the relevant scientific information before its disposition in accordance with National Archives and Records Administration approved schedules. NWTRB has expressed interest in such an arrangement, and DOE and NWTRB will discuss how such oversight could be accomplished.³

Those discussions have been ongoing for more than a year as OCRWM documents have been transferred from Las Vegas, Nevada, to Morgantown, West Virginia, for preservation. Mr. John Montgomery, Site Manager of the Legacy Management Business Center, and his staff lead, Mr. Edwin Parks, briefed the Board on the status of their efforts. Members of the Board staff intend to visit Morgantown in the coming months to carry out a high-level observation of LM's activities and, subsequently, to issue at least one report containing findings and recommendations.

Panel on the Draft *Report to the Secretary* by the Blue Ribbon Commission on America's Nuclear Future

The Board invited Mr. John Kotek, Executive Director of the BRC, to summarize the major conclusions and recommendations in the draft *Report*. They included the following:

- A new approach to siting and repository development
- A new, single-purpose organization with the responsibility for transporting, storing, and disposing of HLW and SNF
- Changes in the way funds from the Nuclear Waste Fund are appropriated so that management of the program is not affected by limited access to funding
- Expeditious development of a deep geological repository for HLW and SNF
- Expeditious development of a centralized interim storage facility

In addition, the Board asked Mr. Ward Sproat, former Director of OCRWM, to reflect upon those key conclusions and recommendations. Mr. Sproat noted that the process used by the BRC was thorough, the draft *Report* generally addressed the major issues, and a number of the recommendations were specific and appropriate. He did observe, however, that the draft *Report* ignored some lessons learned from the Yucca Mountain experience as well as important political realities associated with the siting process. At the end of his presentation, Mr. Sproat urged the BRC to recommend that the Yucca Mountain licensing process be completed and to provide more-specific guidance on how to structure efforts for identifying candidate locations for a repository or a centralized interim storage facility.

³U.S. Department of Energy Answers to ASLB Questions from Order Dated April 21, 2010, May 24, 2010, pg. 37. In House Report 112-118, Energy and Water Development Appropriations Bill, 2012, the Board was directed to "provide support to the Department of Energy ... to archive and preserve all Yucca Mountain-related documents and physical materials of scientific value."

The Board subsequently provided the BRC with comments on the draft *Report*. The Board's comments are available on the Board's Web site, www.nwtrb.gov.

Extended Storage Collaboration Program

Because of the uncertainty surrounding the future of the Yucca Mountain Project, SNF is now likely to remain in storage for a longer time than previously anticipated. Several groups, including the Board, have begun to explore the implications of this situation. (As mentioned above, the Board released a report, *Evaluation of the Technical Basis for Extended Dry Storage and Transportation of Used Nuclear Fuel*, in late 2010.)

The Electric Power Research Institute (EPRI) has organized an international effort, Extended Storage Collaboration Program (ESCP), to establish the technical bases for continued safe, long-term SNF storage and future transport. The Board is, along with DOE, the Nuclear Regulatory Commission (NRC), the Nuclear Energy Institute, nuclear utilities in the United States and abroad, and nuclear vendors, closely following the work of this collaboration, whose objectives include:

- Reviewing current technical bases and conducting gap analyses for SNF storage and transportation systems
- Conducting experiments, field studies, and additional analyses to address gaps
- Coordinating research that results in a program documenting the performance of a dry-storage system loaded with high-burnup (greater than 45 GWd/MTU) fuel.

During the panel discussion on these issues, Dr. John Kessler from EPRI observed that there appears to be an emerging consensus that more attention needs to be focused on corrosion of the stainless steel canister, especially in marine environments, on the bolted-cask metallic seals, and on delayed hydride cracking of the cladding. Mr. Adam Levin from Exelon Generation Company stated that the demands for R&D could be simplified significantly if changes were made to the established regulatory framework so that the storage canister is considered the waste form for storage, transportation, and disposal rather than just for storage. He also noted that there would be significant benefit from taking full credit for burn-up and encouraged that this be pursued. Finally, Dr. James Rubenstone from the NRC described two on-going activities: (1) establishing a firm technical basis for regulations related to extended storage of SNF and (2) providing support for a potential extension of the waste-confidence decision to more than 60 years beyond the life of a commercial nuclear reactor. Although these activities are complementary, they are not identical.

The Board believes that ESCP is an extremely valuable undertaking and strongly endorses DOE's continued active participation in the collaboration. As noted above, the Board recommends that DOE provide adequate resources to support ESCP's objectives. In that regard, the Board understands that with the decommissioning of the Test Area North Hot Cell at Idaho National Laboratory, opportunities for conducting potentially important investigations on SNF at a National Laboratory may have been foreclosed. If this is so, the Board urges DOE to evaluate other options that might allow those experiments to be conducted.

Implications for Waste Management of Using MOX

Over the last few years, increased attention has been paid to the possibility that the United States might adopt a closed fuel cycle involving reprocessing of light-water reactor SNF and recycling the extracted plutonium in the form of MOX fuel assemblies and perhaps recycling the reprocessed uranium as well. DOE originally investigated this possibility as part of its now-defunct

Global Nuclear Energy Partnership. DOE's Office of Fuel Cycle Technologies continues some of the same work today. To understand better the waste-management implications of using MOX, the Board invited three practitioners to report on lessons learned by their organizations.

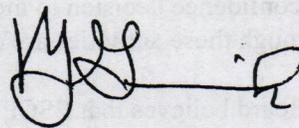
Mr. Daniel Stout from the Tennessee Valley Authority described the process that his utility is employing to determine the implications of using MOX fabricated surplus-weapons plutonium at one or more of its reactors. He noted that the decay heat of a spent MOX fuel assembly would be between 1.3 and 1.7 times higher than that for an equivalent spent-uranium fuel assembly. Consequently, the used MOX would need to be kept in dry cask storage for an additional 56 years to have the same thermal impact on a repository at the time of emplacement. For certain repository designs, that difference could be consequential.

Mr. Patrice Fortier from Transnuclear International, a division of AREVA, indicated that casks have been approved in France for transport of spent MOX and for HLW generated during commercial reprocessing of SNF.

The most detailed technical discussion was provided by Dr. Wolfgang Faber from the German utility EON, which operates eight reactors that have burned MOX. He noted that the use of MOX complicates the on-site management of both unirradiated and irradiated fuel, in part because of the increased security burdens. MOX fuel also requires longer post-discharge cooling time before removal from the spent-fuel pool, and there are other difficulties associated with the intermediate storage period after discharge. In investigating the potential consequences for U.S. utilities of introducing reprocessing and recycling of plutonium and possibly uranium, the Board recommends that DOE take account of the full range of implications for utilities and not just the perceived value of extracting the energy remaining in the spent fuel.

The Board appreciates the effort that NE-53 made to prepare lucid and candid presentations for the September meeting, and we look forward to continued interactions with DOE in future. We would be pleased to meet with you to discuss any of the issues raised in this letter.

Sincerely,



B. John Garrick
Chairman

29
Date: ~~May 24~~ ^{Nov. 14} 2012

TO: ~~Environmental Protection Agency (EPA)~~ ^{U.S. NRC Nuclear Regulatory Commission}
Public hearings, ~~5/24/2012~~ ^{11/14}, Washington DC

FROM: LIH YOUNG, Ph. D. P.O. Box 10286, Rockville, MD 20849

SUBJECT: ~~Support: EPA plans to clean air; reduce pollution, emission, global warming.~~ ^{Support: ~~EPA~~ ~~plans to clean air; reduce pollution, emission, global warming.~~ ^{NEED: thorough rigorous investigation and analysis}}

~~Docket ID. NRC-2012-0246~~

My name is Lih Young. I am a Ph. D. economist by training. I am here to testify for the following purposes: ^{Riverkeeper, NRDC,}

(I). To join Sierra Club, EDF, and other environmental and civic groups to support ~~EPA plans to clean air; reduce pollution, emission, and global warming;~~ ^{investigation and analysis} And thus to improve government function; protect people, families and communities from harmful damages; and to reduce healthcare costs. American people count on ~~EPA~~ ^{NRC} to protect them; don't depend on ~~polluters to police themselves,~~ ^{special interest groups or lobbyists} and don't buy the ~~polluter's claims that EPA safeguards hurt jobs.~~ ^{thorough and rigorous}

(II). To urge the elimination of unfairness and irresponsibility, their adverse impacts on unfair election, unfair market mechanism, and unjust influences of corporations, entities or networks which cause serious social- political- media- budget problems, and cost our society tremendously. Briefly speaking: (1). To oppose corruption, unjust or unlawful practices and policies; (2). To end ALL unfair, unjust, unlawful, or misleading legislation/ appropriation/ subsidies/ uses of land or resources; (3). To stop endless abuse, waste, destruction, deprivation, victimization, local- global; (4). To prosecute/ eliminate "MURDER- FRAUD- CRIME- INJUSTICE NETWORKS", which cause serious socio-political problems; (5). To promote fairness, health, productivity, social lives, and well-being of general public; (6). To protect people, families and communities; (7). To improve government function considering social cost-benefits; (8). To resolve social issues, including various socio- political- media- legislation- budget- election- system problems, especially those I have identified and my families have experienced. See my candidate statements on websites or blogs on social issues, local- federal; or complaints at administrative and judicial levels. I have run for public offices, local- federal, since 1994. *, **

** To prosecute/ eliminate "MURDER- FRAUD- CRIME- INJUSTICE NETWORKS"= "ROBBERY MACHINE" = ROBBER-ISM. which are rampant, private - public sectors; 3 branches, various agencies; administrative and judicial levels; local- global, including legal/ judicial/ court personnel, law enforcement, health services occupation, contractors, impersonators, facilities, etc.; continuing, on-going, relaying, infiltrating every segment of our lives (including non-profit civic organizations), expanding local- global; with threat, coercion, falsification/ misleading, destruction; tampering/ destroying/ concealing evidences, documents, witnesses; endless abuse of power, laws, authorities; unlawful, immoral acts, official misconduct, waste; unjust practices, schemes, scams, manipulation, monitoring, influences; deprivation of people's LIVES, rights, resources, properties, homes, cars; reputation; obstruct/destroy activities (personal, business, civic, political, affiliation); destroy individuals, families, businesses, communities, society, justice, peace; cause homelessness, poverty, civil- human rights backwards, serious "socio- political- election- media- legislative- budget- appropriation- system problems"; destroy essences of "democracy", "fair market mechanism and so called "capitalism", and thus cost our society tremendously.

* Attachment (4) ²⁹
~~1205241_epa_pollution_clean-air_coal-emission_hearing_testimony~~ ²⁹

6/14/2010 (minor revision of 7/15/2009)

CALL TO ACTION
CALL FOR INVESTIGATION

COMPLAINT: (Regarding statements of complained issues: Similar version in hand-writing was submitted on 7/13/2009 as in "Waiting room intake form" to Crisis Center, Montgomery County, Maryland (1301 Piccard Road, Rockville, Maryland). But they would not do anything to correct problems or solve problems as before. Lih Young visited Crisis Center to complain many times.)

COMPLAINANT: Lih Ying Young, Ph. D. (Mailing address: P. O. Box 10286, Rockville, MD 20849; Registered address: 1121 Pipestem Pl. Rockville/ Potomac, Maryland 20854; reclaiming homeownership, because of false foreclosure, eviction by "official misconduct- government gang- fraud- crime- injustice networks):

COMPLAINED AGAINST the following; based on recent incidences, especially regarding false guardianship, termination of Kan Young's life and false detention and imprisonment of Lih Young for two months with forced medication or injection which adversely affect her health, speech, social activities, etc., and related problems; against "official misconduct- government gang- fraud- crime- injustice networks":

Department of Aging, Department of Health and Human Services (401 Hungerford Dr., Rockville, MD 20850, Adult Protective Services, 240-777-3000); especially Elizabeth Boehner (Director); Sherry Davis (public guardianship program, 240-777-3573); Suzanne Lord, Peggy Odick, esq.; Bonnie Klim (Investigation Unit), others. Robert McCarthy (4404 East-West Hwy, suite 201, Bethesda MD 20814); Ria Rochvarg Esq., (Legal Assistance Provider, Maryland Department of Health and Human Hygiene; P. O. Box 1907, Ellicott City, Maryland 21401-1907); Suburban Hospital (8600 Old Georgetown Road, Bethesda, Maryland); Jody Crescenzi (social worker); Patricia Grafferty (Patricia Graggerty? Case Manager), Robert Rothstein, M.D.; other Emergency staff, physicians and staff. Manor Care Nursing and Rehabilitation Center (Potomac, Maryland); Cheryl Paulson (Administrator); other nurses, staff. Bethesda Health and Rehabilitation Center, (Bethesda, Maryland); Puran P. Mathur (? , physician, 2401 Research Blvd. #350, Rockville, MD 20850, 301-330-6985); Tip Woodward, physician (being pressured?, 5530 Euscunsin (?) Ave. #550, Chevy Chase, MD 20815, 302-656-3316). Adelman Sheff and Smith, LLC (180 Admiral Chchrane Drive, suite 370, Annapolis, Maryland 21401, 410-224-3000); attorneys for Suburban Hospital, Inc. especially Timonthy B. Adelman. Police, sheriff, fire and rescue (Rockville city and Montgomery County, Maryland), especially Officer Davis (check: any relation with Sherry Davis (Montgomery County Department of Aging?); Cowell (Sgt. Detective, wore plain clothes), Officer Sadelson C.P. and _____ (name not yet identified), more.

COMPLAINED ISSUES - PROBLEMS:

Complained issues against government agencies and related MURDER-fraud- crime- injustice networks: abuse of power, laws and regulations. Unjust false guardianship attempts to deprive the rights of wife and families, properties and death benefits from life insurances.

Husband Kan Hua Young was MURDERED, his life was injured, damaged and terminated by order of the state and their phony guardian, Department of Aging, Adult Protective Services, especially Sherry Davis and related "official misconduct- government gang- fraud- crime- injustice networks", unjust practices, manipulation and influence; chronically; continuing, on -going with threat, coercion; violation of Constitutional rights, government rules, regulation; crimes against humanity.

Government agencies did not resolve complained issues against the fraud- crime- injustice networks which deprive, destroy, damage our assets(home, properties, reputation, cars, documents, belongings etc.; injure damage bodily, physically, mentally; endless unjust practices, e.g., false foreclosure, evictions,(from home that we owned and renting places with no fault of our own, no default payment); causing poverty, homelessness.; obstruct, destruct activities, liberty, freedom (individual, family, business, civic, political, community services; freedom of speech, communication, association, etc.).

Department of Aging, Department of Health and Human Services not only did not help, but instead working as part of "fraud- crime- injustice networks", mastermind "phony guardianship", kidnap Kan Hua Young to Manor Care, where Kan Young was injured by having no food, inadequate food, poison food, unsafe food and other unsafe equipment and bed. Complaints have filed with Manor Care in writing, in

person or orally, but were not resolved, instead complainant was retaliated.

Kan Young was made un-conscience and sent back to Suburban Hospital. Phony guardian, Department of Aging, especially Adult Protective Services Sherry Davis and Manor Care; denied the wife Lih Young to visit her husband in Manor-Care. Instead, they called police (including Officer Davis, ID----- full name not given) on 3/27/2009 to drag the wife out with force to break bones, chock neck and pressure chest, pulled the hair and send to Shady Grove Hospital with 4-point restraints imprisonment. Police Officer knew the complainant, but wrote petition for mental evaluation with the name Jane Doe. (Police are assigned to Wheaton District, but they came to Manor Care- Potomac which is in different district.) Again on 4/3/2009, abuse of police and Fire and Rescue (there were no fire, and no rescue necessary). They sent complainant to Suburban Hospital, more than two shots to complainant which made complainant Lih Young un-conscience; and later transported to Potomac Ridge Behavioral Health Center. Basically hospital and health center are used as prison complex to detain innocent citizens for victimization, retaliation; abuses, forced medication which adversely affected complainant's health, activities and social relationship. Obviously, they attempted to silencing people down; and can not do all kinds of activities, including visiting husband in their facilities.

Kan Hua Young was improperly treated in Suburban Hospital also with or attempts of poison food and procedures (even unlawful, without physician's approval), causing vomiting, complications, e.g., pneumonia, swelling in hands, foot and body, wide variation of sugar level, as might be 83 – 280+, etc. The court papers appears to be conspiracy among other parties. They are not only total strangers, but practically has not shown up or show any care or concerns about patient Kan Young's health, except Dr. Tip Woodward, who appeared to be under pressure by others who are serious "official misconduct-government gang- fraud- crime- injustice networks" operation, unjust practices, manipulation and influences.

The Circuit Court hearing for permanent guardianship set for June 25, 2009 was removed from the docket. The hearing was cancelled. The wife Lih Young received no court papers, and appeared in the Circuit Court on 6/25/2009. No one from other parties appeared. In between those time, the wife Lih Young visited Adult Protective Services, Department of aging, Department of Health and Human Services, and asked to see supervisor and complete files that they have concerning Kan Young and the family, but was denied except to give 3 pages of papers, and they called security guard to escort Lih Young out.

Later, Lih Young went to Circuit Court to see the file, which consist of false statement, bypass all family members, relatives, friends and other community members as guardians. They made of no mention that Lih Young has been with Kan Young in his care and stay in hospital or rehabilitation; and had been a devoted wife and mother. They also ignored that Lih Young complained against their abuse, neglect, and various kinds of wrongdoings and harms bodily, physically, financially, and hurt our reputation. They spread false rumors against the wife and family and Kan Young's. The staff in Manor Care even said that Lih Young is not the wife, as if they were. Who paid them? Are they prostitutes? Their filing of court paper also appear defective services, and lack of due process. The wife Lih Young asked the Suburban Hospital for thorough investigation, medical examination, and autopsy, including the problems concerning especially the un-conscience and adverse effect bodily as well as 'fraud- crime- injustice- networks' operation. The wife also contacted Bonnie Klem of Department of Aging, Investigation Unit, and complained over the phone a couple of time, and left messages to ask for thorough investigation, medical examination and autopsy, etc., and the wife would like to have an investigative report. But complainant has not received any response. On 7/13/2009 the wife also reported to police, asked for a thorough investigation about incidences and related MURDER- "fraud- crime- injustice networks" operation. ###

091031a_complaint_healthservices_murderfraudcrimeinjustice
120307_complaint_healthservices_murderfraudcrimeinjustice_size10

CALL TO ACTION

CALL FOR INVESTIGATION

COMPLAINT: (Mainly on FALSE FORECLOSURE and related MURDER- fraud- crime- injustice networks". Lih Young visited Crisis Center to complain as in other incidences or evictions.)

COMPLAINANT: Lih Ying Young, Ph. D. (Mailing address: P. O. Box 10286, Rockville, MD 20849; Registered address: 1121 Pipestem Pl. Rockville/ Potomac, Maryland 20854; reclaiming homeownership, because of false foreclosure, eviction by "official misconduct- government gang- fraud- crime- injustice networks):

COMPLAINED AGAINST the following: See also other complaints, e.g., on health services, false guardianship and related "MURDER-fraud- crime- injustice networks" with endless false excuses, unlawful actions, frauds, crimes, etc., which cause serious socio-political- media- budget-poverty- freedom problems.

Laura Jolly, phony substitute trustee (who can not be found, contacted, or communicated even inquired by law offices or government agencies); Marc Sliffman, Esq. (Georgia Ave., Wheaton/ Silver Spring, Maryland). Samuel White LLC (initially office in Richmond, Va, later office in Alexandria Va.); Samuel White, Esq., Daniel Pesachowitz, Esq., Shawn Bartley, Esq., etc.

Attorneys hired originally by homeowners, but betrayed homeowners, as bribed by other parties and court auditor Robert Romero: Olivia Cammack, Esq. (offices in Silver Spring, Baltimore, Maryland); David Slacter Esq. (Bethesda, Maryland).

Judges, Clerks of the Courts (former and current), court personnel, sheriff, etc: Circuit Court, District Court, Court system of Maryland, and U.S. Federal courts.

Rockville city mayor/council, clerk office, city attorney office, Paul Glasgow and related law firm David Venable, etc., City police, etc., staff. Other government agencies: DOJ, FBI, OPM, SSA, IRS, Tax court (Federal, state), DOC, US DHHS, USDA financial services; Comptroller's office, attorney general, etc.; lawyers (government, privates), accountants, landlords/landladies (especially under unjust influences and manipulation),..., and more.

Media: Montgomery Community Television: John Hansmsn, Nancy Poole, Executive Directors, Board of Directors; Marian Merewitz, Larry Merewitz, Cintia Cabib, Laura Cooper, Kimberly Watkins, Bernard Dowell, Dee Willet, etc. Fairfax Public Access; executive director, Board of Directors, especially Georgia Graves, Bob Girusso, instructor David McArlery, other volunteers, etc.

COMPLAINED ISSUES - PROBLEMS:

Around years 2004, before housing collapsed, the housing market in my home area is good. Houses can be sold in a few days or within a week. Sometimes the purchasing prices were above asking prices. The market value of my home under foreclosure was around \$700,000 - \$800,000 as the complainant was informed. (The house has recently transacted around or above \$850,000, as of 4/21/2010). The balance of my first mortgage at the time of foreclosure was only about \$48,000. But the "fraud- crime- injustice networks" foreclosed the home with only \$470,000, less than two third (2/3) of market values, and took a long time for them to manipulate. It is grossly unfair.

The Court Auditor Robert Romero (phony, a private attorney) did not give a single penny when the complainant/ homeowners were evicted out and exiled to out of state. Even after the exile, the homeowner was only given about \$100,000, a small fraction of net proceed (\$470,000).

"Fraud- crime- injustice networks" took years of unjust practices, manipulation; false auction, buyers (names change later), rental, etc., without complainant's prior knowledge, consent, or due process, etc. They did a lot of harassment, annoyance, unlawful acts, harms and false statements and document against complainant and family.

Even with the foreclosed amount \$470,000, it could buy a medium sized home in the Rockville are. But the "fraud- crime- injustice networks" unjustly manipulated to exile the complainant and the family out of the area, or cause homeless in the cold. The "fraud- crime- injustice networks are truly cruel and tyrannical; destroy people, family, society, democracy, fair election and fair market mechanism.

Despite the complainant's disagreement, and asked the court to give the proceed directly to the complainant and not to give any proceed to the lawyers or via the lawyers Olivia Cammack, esq and David Slacter; both had betrayed homeowners. The court and the court auditor Robert Romero arbitrarily disregarded complainant's request, and gave the money via David Slacter, who did not explain why such a small amount to complainant.

At the time of retainer agreement, complainant asked lawyers Olivia Cammack and David Slacter to coordinate with civil rights organization, NAACP, ACLU and AARP etc. They agreed, but they failed to do so. At the time of retainer agreement, David Slacter overcharged the amount for the retainer. He refused to make correction about over-charge or fraudulent charge at that time. He said he would return the amount later. This is unjust and fraudulent practices.

Factors causing hardship: deprivation of complainant's resources, salaries, fringe benefits, banking accounts, cars, etc; denial of social securities disability benefits; disability retirement benefit etc., were unjustly reduced or deprived of a big portion with false unjust vague reasons, e.g., tax deficiency, but has never been itemized or explained with specific justification by government agencies. It has not been provided with installment payment schedules with itemization for specific periods of time. The "fraud- crime- injustice networks" operation is like "ROBBERY MACHINE" forever.

During the hardship, complainant continued to have mortgage paid by family members- complainant's son, who may even pay double payment under harassment. One of the checks was returned by the "fraud- crime- injustice networks" who marked the check with social security number to identify homeowner, complainant's spouse. Complainant's son wrote back for clarification.

Complainant filed motion to vacate order before eviction, but received no response. The "fraud- crime- injustice networks" came with sheriff to evict the complainant, and warned of arrest if homeowners went in the house again. After eviction from own home and exile out of state, complainant's spouse was injured and hospitalized. But eventually complainant came back to Washington D.C., Rockville and Gaithersburg areas and rented places to live, but were evicted against, without faults on the part of complainant. There were ample unjust practices, manipulation, influence, brutality and injuries against complainant. ###

June 17, 2010
CALL TO ACTION
CALL FOR INVESTIGATION

COMPLAINT:

Social justice in great danger; unjust arrest, detention, medication, torture, injury.

COMPLAINANT:

Lih Ying Young, Ph. D.
Mailing address: P.O. Box 10286, Rockville, MD 20849
Registered address: 11221 Pipestem Pl. Rockville, MD 20854
(Reclaiming homeownership; home was robbed away by "MURDER- fraud- crime- injustice network".
For more detail, see other complaints.)

COMPLAINED ISSUES – PROBLEMS AND FACTS:

Actually now I am still recuperating from the harm that I have suffered from false arrests, detention; forced hospitalization and medication and various unjust practices, deprivation, victimization by "MURDER- FRAUD-CRIME- INJUSTICE NETWORKS", e.g., false foreclosures, guardianship, evictions, etc. For more detail, see various complaints at administrative and judicial levels. Hopefully, based on the complained issues and problems I had identified, testified or presented to the officials, city hall, presented in candidate statements, or the problems raised in the TV programs (concerning domestic and global affairs) produced by the complainant (Lih Young Ph. D.) Further the media was unjustly influenced by them, including public access channels, e.g., Montgomery Community Television (Montgomery County, Maryland) and Fairfax Public Access (Fairfax, Virginia). Staff or Directors of the Boards of the public access channels have used variety of unjust methods, false excuses and unjust statements to obstruct complainant from production and airing of TV programs; deny complainant memberships and other opportunities; damage complainant's reputation by false advertisement and other adverse actions, e.g., suspension for two years, and further two years of probation; threat of arrests if enter the building, etc., while MCT and FPA staff and board directors violate the laws, regulations and even their own rules.

Despite I have been mentally and physically strong and healthy; successfully raised my families; actively participated in civic activities; resided in the same location for decades; and have run for public offices since 1994, including U. S. Congress, U. S. Senate and Maryland State-wide Comptroller, Maryland state senate, Rockville city Mayor/ Council. I have successfully attained my educational goal of Ph. D. in economics. My two children with two years early graduation from high schools; son, double majors in math and physics in three years; champions in state-wide mathematics (N.J. and Md); both children, graduates of MIT; one Ph. D., one MA.

November 3, 2010, I was falsely arrested by Rockville City Police, because I wanted to register to vote, but was denied. Rockville city police and related "Murder- fraud- crime- injustice networks" had denied complainant to testify, enter public places even before we were evicted; now denied the complainant to vote, or even just to give registration form to fill. They had removed complainant's name from voter list; as they have unlawfully robbed our home, rights, properties, assets, accounts, cars, etc; with threat, coercion, harassment, intimidation, death threat, burglary, fraudulent sales of cars, theft, identity theft, injuries, victimization, retaliation; false guardianship, power of attorney, false arrests, forced medication, injury, etc. (see separate complaint with subject on: health services, "MURDER- fraud- crime- injustice networks"); evicted us from our own home (with homeownership for decades, see separate complaint with subject on false foreclosure and related fraud- crime- injustice networks); and later evicted us from two renting places with brutality and unjust practices; without faults on our parts. Their patterns of unjust practices, conspiracies, false excuses, statements, documents, etc., are continuing, on-going, penetrating every segment of our lives; expanding here to overseas; very cruel, tyrannical; lack of ethical immoral values; denial or deprivation of people's income, social program benefits (disabilities retirement, SSI, Widow's); cause financial hardship; foreclosure or false foreclosure, bribery to homeowners' lawyers (with foreclosure proceeds by the court auditors- private attorneys, e.g., Robert Romero); false eviction, exile; denied complainant to choose where to live; to have freedom of speech; to testify before government bodies; to affiliate with organizations; to participate in civic and community activities; to ruin complainant's identification, citizenship and social security status; denied voting and democratic process; deprive of all rights and protection under the U.S. Constitution, laws and regulations (state and local). It is like under dictatorship in foreign country, causing exiles, refugees, disasters and suffering, while refusing them to vote or elect their leadership. It is like labeling immigrants illegal or undocumented while depriving their status and denying their opportunities. destroy individuals, families, society, democracy, justice,

peace; create ROBBER-ISM while destroy essences of capitalism; cause serious socio- political- media- budget- legislative- judicial problems; local- federal- overseas, 3 branches; public and private sectors.

Since 11/3/2009 arrest, I was continually handcuffed, detained and later with forced medication for nearly six month till April 21, 2010; in MCDC (Montgomery County Detention Center in both Seven Lock Road and Clarksburg) and in SFHC. On 11/3/2009, I was falsely charged with not obeying police's order to leave, with disorder and noise. It was false and unjustified. Even in that class of crime if convicted at all, the maximum penalty is 60 days or \$500. But District Commissioner M. Dickerson (female, white complexion) imposed an outrageous bond of \$5,000; and other unjust rulings. After biased, prejudiced decision and conspiracies among Judges Cheryl McCally, Gary Crawford, court personnel and related "fraud- crime- injustice networks", complainant was continued to be handcuffed and detained. Judge Gary Crawford also handled TWO previous unjust eviction cases against complainant and family; in one case he was presided with Judge Gary Everngam, i.e., two judges in the same court room for the same case(s); another case involved that fraud- crime- networks who conspired to have landlady using various unjust schemes, to brutalize and injure complainant and family; and the court and their divisions refused to take pleading or complaint/ counter-claim from the complainant. For a long time, court personnel have shown to be biased, prejudiced and unjustly manipulated the court cases, with serious improper processing of complaint, processing and proceeding, docketing and bookkeeping.

On January 5, 2010 (i.e., 63 days after arrest), the prosecutor Nunlly and Judge James Sasfield conspired to continue to detain the complainant with false excuse of cold weather. Although eventually they dropped the charge on January 12, 2010, i.e., after 70 days of imprisonment - more than maximum of penalty 60 days, the complainant was not released; and was not free to go. Complainant was handcuffed and then transported back to SFHC for further detention with their conspiracies to have FORCED MEDICATION and thus torture and injury on complainant. Complainant STRONGLY OPPOSED.

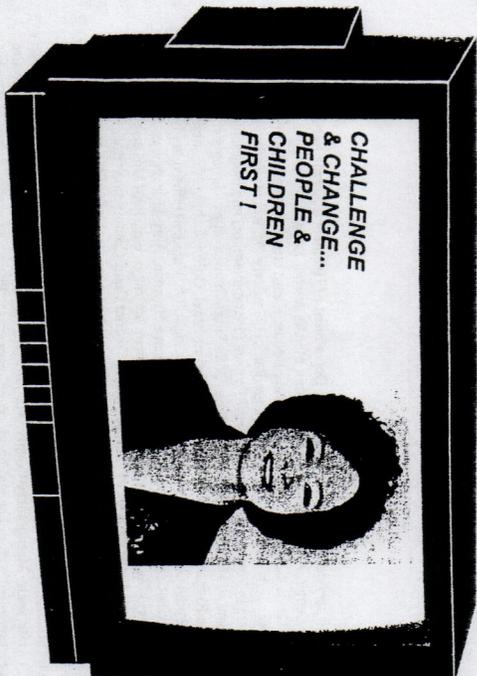
For the first three months since I was detained, I was still physically healthy and strong, without medication; without problems physically. I actively participated in various activities. SFHC had planned to released me on January 5, 2010, as SFHC anticipated that it had been 63 days of detention, i.e., beyond maximum penalty of 60 days). But SFHC and related fraud- crime- networks designed a secret attempt to FORCED MEDICATION and injury against complainant. Judge James Sasfield and prosecutor Nunlly (?) refused to release complainant, even on January 12, 2010 (70 days of detention); and placed me under "fraud- crime- injustice networks" for unjust arbitrary disposal and conspiracies among unethical health professional in SFHC and related "murder- fraud- crime- injustice networks; including forensic services; Jolie Smith (DHMH), Kevin Knight (SFHC); psychologists, Françoise Reynolds and Carla Carvell; psychiatrists (Dr. Valadez who refused to give full name), social workers, clinical review panels, Office of Administrative Hearing, judicial/ court personnel, etc.), Md.DHMH (Maryland Department of Health and Mental Hygiene), and legal assistance provider Ria Rochvarg, who involved in false guardianship, power of attorney, and "MURDER- fraud- crime- injustice networks" as complained previously. Such REPEATED false arrests with false excuses (i.e., disorder, noise, disobey orders), unjust detention in MCDC and hospital or mental facilities with forced medication are patterns of unjust practices with serious false excuses, cruelty, unlawful and tyrannical acts against innocent citizens. Such fraud- crime- injustice networks should be thoroughly investigated, prosecuted and punished.

Thus complainant was continued to be detained and forced to be medicated with adverse impacts on my health, brain, tongue and other physical capabilities. As a result, I was like a mental retarded. There were false diagnoses with forced unjust harmful medication in Springfield Hospital Center (SFHC) Sykesville, MD. The forced medication harm complainant mentally and physically; damage brain, speech and other physical capabilities. Such unjust immoral and unlawful injuries are extremely forms of TORETURE. This torture and cruelty are against humanity and justice system. It could be worse. I could be dead. There had been one young cheerful detainee dead in about a month since I had been detained in the same unit of SFHC there. It sounds scary.

Despite I mentioned the adverse impact, professional at SFHC refused to stop the medication except for a short one- week; then continue the medication, except the dosages were reduced slightly, but the adverse impact continued. This is an abuse, waste and counter- productive by the health services workers, professional (especially psychologists, psychiatrists, forensics services, and other workers) and judicial court personnel, as part of "murder- fraud- crime- injustice networks" operation, unjust manipulation and influence. Often, health care facilities are not for health care. It is basically a prison complex to detain and torture good citizens who might be falsely arrested at the wrong time in the wronging place; and those who oppose "official wrongdoing, conspiracies, corruption, etc." Thus unethical workers chosen to work there against those "anti-conspiracies" and "fighting corruption". Health facilities gain profits tremendously- by charging to patients and receiving support from public fund and corruptive officials.

For more detail of unjust practices, etc., see complaints filed with the courts, SFHC, DHMH, and Official of Civil Rights, Secretary, U.S. Department of Health and Human Services. Unfortunately, these agencies do not work properly and have failed to resolve problems. "Other agencies" are usually related to "MURDER- fraud- crime- injustice networks" (public, private, 3 branches, local- federal, law enforcement, police, sheriff, fire and rescue). They are interrelated, and should be investigated and prosecuted thoroughly. ###

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LIH YOUNG FOR U.S. SENATE

DEMOCRAT, Maryland Statewide 2012

Website: vote.md.org/Intro.aspx?id=mdyoungli

See other websites, voters guides. Also look for previous elections for offices. Social issues: interrelated, horizontally, vertically; local—global.

BIO, BACKGROUND: *

Candidate for public offices since 1994: US Senate (2012, 2010, 2006), US Congress (2008, 2004, 2000, 1996), Maryland Comptroller (1998, 2002), Maryland Senate (1994), Rockville Mayor (1999, 1997), Rockville Council (2003, 2001). Endorsed, recommended by a large coalition of women organizations for US Presidential appointee.

Reformer, advocate, activist, TV programs producer/host/speaker, Ph.D. econ. Strong expertise, commitment: public interest; to solve "socio-political-election- media- budget- legislative – system problems" which are interrelated. Promote: fairness, freedom, justice, peace, accountability, quality, competition, cost-effectiveness; fair election, trade, legislative processes; good concepts, principles, capability, reasoning, good sense of justice, public interest, moral and ethical values; maintain/disseminate meaningful accurate information, records, archives. Issue debate/ forum, public hearings; maintain/disseminate meaningful accurate information, records, archives. Urged to prosecute/ eliminate "MURDER-FRAUD-CRIME- INJUSTICE NETWORKS- SYSTEM PROBLEMS" - official misconduct, government gang, unjust practices, influence, manipulation, bad legislation, appropriation, falsification etc. which destroy individuals, families, communities, justice, peace.

Profiled in Marquis' "Who's Who in America", "Who's Who in Business and Finance". Gained prestigious certificates of High/Special Exams overseas. Worked: U. S. Department of Health and Human Services; Won decade-long litigation against US Department of Health and Human Services, National Center for Health Services Research, etc., high up to US Supreme Court, but still no proper resolution, remedies: Super-woman, -woman, victim-turned superhuman against "MURDER-fraud- crime- injustice networks- system problems". Identified serious problems; testified/ petitioned frequently on varieties of issues- "socio-political-election- media- budget problems"- interrelated, private and public sectors, 3 branches, local- global, before officials, law enforcement, public hearings, Producer/host/speaker: numerous TV programs on social issues, local- global; Freedom Times (studio series, about 100 episodes, 1 hour/ episode), Citizen Times (studio series, about 100 episodes, 1 hour/ episode), "Willight of Judgment (I, II, III), Federal Shamblies (1, 2), Working Class, Faith Revival, Conscience, Freedom, Global Affairs, On Taxation, On Equality, Democracy and Humanity, Struggle against Inhumanity, Around Capital Around Us, etc. Participated in White House Conference on Small Business.

Candidate Dr. LiH Young has worked tirelessly on the most urgent serious problems facing our jurisdiction here and overseas, i.e., "MURDER- fraud- crime- injustice networks" = cruel tyranny= robbery machine = "ROBBER-ISM": which destroys the essences of freedom, fair market mechanism, Capitalism and Democracy; cause serious "socio- political- media- election- legislative- budget- system problems", civil/human rights backwards- foreign countries: with official misconduct, government gang: 3 branches, local- federal-global, public/private sectors; profit/non-profit agencies/ organizations; courts personnel, judges, attorneys (public, private), health services (agencies, organizations, hospitals, rehabilitation centers); law enforcement/ police/sheriff/ fire and rescue, etc.; abuse, violations of Constitution, laws and regulations (federal, states, local, international); with threat- coercion, victimization, discrimination, injuries (bodily, physically, mentally, torture, MURDER: endless unlawful- unethical- immoral- acts; theft, id theft, burglary, brutality, MURDER: fraudulent sale of cars, forged,.... whenever- destruction/ deprivation: information, rights, time, resources (public, private; personal, business, civic, political; home, properties, cars, assets, accounts, etc.); false information, excuses, arrest, kidnap, hostage/ransom (disguised by bond/ bail, etc.); imprisonment; unjust/forced medication/ injuries; frivolous litigations (civil, criminal), levies, foreclosures, garnishment, guardianship, power of attorney, etc.; improper processing of complaints, procedures, proceedings, docketing, bookkeeping, accounting; causing poverty, homelessness, serious socio- political- media- budget- legislative problems.

Ph.D. MA. economics, City University of New York (CUNY), BA. economics, National Taiwan University; Dissertation: "Household Demands for Leisure Activities: Readings and TV-Watching (with econometric models), Thesis: "An Evaluation of Economic Development in Taiwan" (with linear programming models). Spouse: Kan Hua, PhD, Columbia U.; deceased, murdered. Two children: Albert, PhD, MIT (double major in physics and math in 3 yrs; first place in state-wide math competition in New Jersey, and first place in Maryland, Janice, MA, MIT. (both children: early graduation; skipped altogether 5 yrs, inc. college). To reclaim the homeownership of the residence in Rockville, Maryland since 1979; should be the same home address in the same home association as a former Rockville City Council James Marrinan and Montgomery County Chief Administrative Officer Bruce Romer who came from other state. The house was robbed away by the "MURDER- fraud- crime- injustice networks"; deprivation of time, resources, rights (Constitutional, litigation, jury, etc.); all kinds of freedom: speech, possessing properties, where to live, to do business, to testify, or to do civic, political, community services, affiliations, and social activities. Dr. LiH Young and families have been victimized and retaliated for decades (as individuals, U.S. citizens, taxpayers, immigrants) and treated like POLITICAL PRISONER (criticizing political parties, and outspoken against the conspiracies, wrongdoings, official misconduct, government gang, "MURDER- fraud- crime- injustice networks"; their adverse impacts on complainants and general public; local – global.

Economist, OMNIX (obstructed by "official misconduct- government gang- fraud- crime- injustice networks"; adjunct professor, Bloomfield College, N.J.; Bank of China, Taiwan, Republic of China, private tutor. Professional affiliations (former): American Economic Association, American Statistical Association, American Public Health Association, etc. Life member, National Association for the Advancement of Colored People (NAACP), Past executive member: NAACP- Montgomery County Chapter, Md.; AARP, local chapter, Bethesda-Chevy (ACLU), National Capital Area and Montgomery County Chapters, Md.; AARP, local chapter, Bethesda-Chevy Chase, Md.; past national steering committee, National Women's Political Caucus; past steering committee, Maryland Legislative Agenda for Women; Activist/member/ petitioner/ volunteer: Consumer Union, Public Citizen, Amnesty International, Bill of Rights Defense Council, Center for Constitutional Rights, Campaign for Better Care, National Organization for Women, League of Women Voters, Common Cause, Natural Resource Defense Council, National Parks and Conservation Association, Congressional Black Women Political Caucus. Past executive/ steering committee/ member: diverse organizations and ethnic groups.

Have made recommendations: urged to change practices/ policies in right direction; re-direct resources for priorities and social needs; rigorous review, analysis on budgets/ projects/ programs; based on merit, principle, priorities, cost-effectiveness, cost-benefits (monetary, non-monetary), social, private). Promote good concepts, fairness, quality, peace, justice; fair election processes; televise issue/ candidate debate/ forum; disseminate/ maintain meaningful information, archives on issues/ candidates. Oppose: unjust practices, manipulation, influence, bad legislative bills, hidden agenda, abuse/misuse/ disguise of power, resources; false/ misleading excuses, opposite government function (3 branches, local- federal); abandonment of properties, maintenance of "paper roads", false "free meals", law enforcement, health services/ agencies, public/ private partnership, economic development, housing, school construction, transportation, ... nonsense grants, programs, "annual night out", "phony universities", etc.) to benefit/ facilitate "official misconduct- government gang- fraud- crime- injustice networks".



TOP PRIORITIES: Society is in vicious cycles, as in need of revolution, if we don't act:

(1). Prosecute, eliminate "MURDER-fraud-crime-injustice networks"-crime/tyranny-robbery machine = ROBBER-ISM, destroying essences of democracy, capitalism, continuing, on-going, re-lying, penetrating every segment of our lives (inc. civic non-profit organizations), expanding here domestically to overseas-foreign countries, with threat, coercion, victimization, deprivation, discrimination, unjust practices, manipulation, influence, bad legislative bills; unjust hidden agenda with false misleading excuses (inc. private-public partnership, economic development, housing, school construction, transportation, abandonment of properties, maintenance of "paper roads", nonsense grants, programs; ... whatever) to benefit/facilitate "MURDER-fraud-crime-injustice networks" (inc. officials, judges, developers, lawyers, employees, etc.); expand further unjust operation; endless unlawful-immoral acts; rob/destroy resources (rights, land, properties, home, buildings, assets, accounts, income, pension, government, guardianship, power of attorney; improper processing of complaints, procedures, proceedings, docking, bookkeeping, accounting, cause vicious cycles: socio-political-election-media-budget-legislative-system problems: civil-human rights backwards-people-slate. Examples of problems are provided below: **

(2). Restore: principle, fairness, cost-effectiveness, accountability, reliability, capability; fair election, justice, peace, "check and balance"; based on merits, justification; NO: double standards, improper processing of complaints, procedures, proceedings; falsification, false records, tampering of evidence, data; harassment, intimidation (complainant, witnesses); false charges, citation, bond, imprisonment, disparities and improper treatments; abuse of laws, power, authorities; easy access to information, files, records, transcripts; not unjustly manipulated, influenced, misled by wrong person, or "official misconduct-government-gang-fraud-crime-injustice networks".

(3). To promote TRUE essences of democracy, fair market mechanism and election process, awareness of issues, capability, reasoning, good sense of justice, public interest, endurance: (A) Televise candidate/issue forum/debate public hearings. (B) Maintain/disseminate meaningful accurate information, records on candidates and issues. (C) Objective screening by meaningful rigorous examinations/evaluations/discussion/debate for merit, quality, public interest, cost-effectiveness, social needs, budget constraints, priorities and other factors.

* To capture the extend of serious problems identified on "MURDER-fraud-crime-injustice networks" with official misconduct-government-gang, please incorporate: (A) complainants/cases: administrative and judicial levels; (B) frequent testimonies before government bodies, official, legislators, law enforcement, committees, agencies, public hearings; local-federal; (C) spin-off complaints; improper processing of complaints, procedures, proceedings; docking, accounting, bookkeeping; (D) Candidate statements, see Web's archives, voters guides; (E) complaints/reports to officials, law enforcement, consumer affairs, other authorities/agencies; (F) Numerous TV programs on social issues that Dr. Lin Young has produced, hosted or as a speaker; (G). Frequent recommendations/petitions to officials, agencies, law enforcement; as individuals or with civic organizations; (H) Re-open/investigate unjust practices, public exposure, abolishment/wiping of websites, records, archives; Congress.org, Dnet (League of Women Voters), MCT, other media, websites, agencies, law enforcement, etc.;

** EXAMPLES OF PROBLEMS - "MURDER-FRAUD-CRIME-INJUSTICE NETWORKS":

with official misconduct, government-gang-endless unlawful immoral acts:

(Some may be unjustly misled, misguided; Other problems: phony names, double names; no names even in court cases or repeated requests; no access to court files; could not make copies.)

(A): OPM, IRS, DHS, SSA, DOI, FBI, DOD, USDA, DOC, USCIS (? US citizens/neutralization services), custom services, various agencies, law enforcement; 3 branches, local-federal-global: many financial/brokerage/accounting/bill-payment processing/ collection institutions/agencies; insurance, car related businesses, utilities/phone/cable/internet, ... more; National Park Service (Prey/van?); Library of Congress (Neil Giddy); car dealers Lakercrest Oldsmobile and car-rental/judges/legal/judicial/court personnel; detective/process server/impersonators; Leslie Gradet, Tamara Jones, William D Roessler; Office of Treasury, Comptroller, Attorney General, Joel Jacob/Jacobson, Gail Malte-Davis, Sylvia J. Brooks, Mary Hawse, Linda Tanton, Gerald Langbaum, John Barry, Pamela Porter, Leo F. Partridge, Mark Valian, James Riley, James Britl, Audrey Thomas, Jeanne Lippy, Jesse Rosenburger, Ralph Lepson; transcribers Margaret Bauer, Senators: Walter Baker, Barbara Hoffman, Thomas Middleton, Trooper: Marty Sealey, Vincent Mass, State Election Board Ross Goldstein; Maryland DODed Susan Page, Barbara Smith (?), SSA employees and supervisors (especially in Rockville, Md), and Maryland (7th other states, N.J.); Lobbyists/ municipal attorneys/lawyers/affiliates, Paul Glasgow, David Venable, Bullivant (7th other states, N.J.); Lobbyists/ municipal attorneys/lawyers/affiliates, Paul Glasgow, David Venable, Joseph Solitz, Jr., Barry Gordon, Stephen Perouka, David Steinberg, Wolpoff & Abramson, Richard D. Mirsky, Poppleton, Garrett & Polot, P.C., accountant Hilda K. Matijevic, Marc Siffman (Silver Spring, Whetson area), Samuel White and his law firm and lawyers Shawn Bartley, Daniel Pesachowitz, Laura Jolly (phony name, named as "substitute trustee", but can never be found or contacted even through official agencies); Court Auditor Robert

Romero, State, county health services organizations/agencies, Department of Health and Human Services, Montgomery County, Chris Center, Jean Burgess (white, female), Marsha Aaron, Department of Aging, Adult Protective Services, Sherry Davis, Suzanne Lord (?), Odick Esq., Bonnie Klein, etc., Suburban Hospital, physicians, emergency staff, social worker, body Cecensi (?), case manager Patricia Garfney (?), Robert Roitstein, M.D. (?), Tipp Woodward, Manor-Care in Potomac Maryland, Cheryl Paulson (?), administrator and nurses, etc.; forensic services, Maryland Department of Health and Mental Hygiene: Joie Smith, numerous psychologists, psychiatrists, social workers, etc.; Potomac Ridge Behavioral Health Center: Steven Israel, Collin Gabriel (?), social worker Tracy Lewit; Springfield Hospital Center: forensic services, Kevin Knight, Dr. Valadez (refused to give full name, despite repeated requests); Caria Craville, Françoise Reynolds, Roxanne Heyman, Amy True; Judges James Sasfide, Gary Crawford, Cheryl McCally, etc., prosecutors/government attorneys, e.g., John McCarthy, Nancy/ny (?), Peter Mitchell (Montgomery County Office of Human Rights); District Court Commissioner (Rockville, Md) M. Dickerson; Court Personnel T.M. (only initials, no full name available); many judges, clerk of the courts (Jeffrey Ward, Loreta Knight, Bette Skelton, Molly Rhul, etc.), other court personnel, various branches, divisions, counties, states; local-federal; law enforcement, FBI; police in Rockville, Md; Sgt. Cowell (first name not available), C.P. Sadleson; officer Davis (MCPD); Denis Lewis (Baltimore County); sheriff: R. Lewis (female, White, Montgomery County, Md., K. Naff (white, male, Montgomery County, Md); fire and rescue abuse, even when there is no fire, and no rescue necessary, conspired with police and fraud-crime-networks). Private attorneys: Robert McCarthy (Bethesda, Md.), Olivia Cammack (Silver Spring, Md.), David Slacker (Bethesda Md.), Ria Roehwang (assigned as legal assistance provider to certain counties by Md. Department of Health and Mental Hygiene, but she went around the state for various abuses with Sherry Davis, Police Davis, attorneys (public and private), Timothy Adelman, Esq., (?) and law firms Adelman, Sheriff and Smith (?), in Annapolis, Md), Robert McCarthy, Suburban Hospital, etc. Rockville home inspection/permit, Victor Sajakus (?), Beth Fritchard, Linda McDermitt (?), handlor/handlres Jiewen Tan (Rockville, Md) and Chia Yao (Gaithersburg, Md.).

(B): The problems are interrelated horizontally and vertically, among all issues, local-global. Clerks of the Circuit Court (Montgomery County, Md.) Loreta Knight, Bette Skelton, Molly Rhul; District Court Clerk Jeffrey Ward; Administrative Judge Cornelius Vaughley, Sheriff Elliot Tolbert, R. Lewis, K. Naff, etc. government attorney John McCarthy, Kristen Bender, David Boynton (now judge); court personnel; attorneys (public, private), law enforcement (FBI, sheriff, police, fire/rescue, etc., contractors; local-federal); spying, surveillance, harassment, unlawful search, stealing, robbery, injuries; false arrest, imprisonment, citation, trespass, testimony; destroy/suppress evidence, witnesses, information, documents etc.

(C) False/unjust/rhivolous levels, liens, garnishment, guardianship, power of attorneys, foreclosure, tenant/hold-over- eviction, etc. Thousands of cases are pending in the court systems for years or even decades, believed to be filed by "fraud-crime-networks" to victimize people, without due process, proper services, proceedings; cause homelessness, poverty; not because of the problems of homeowners/citizens, but because of unjust judicial/court/legal personnel, court auditor Robert Romero who bribed homeowner's lawyers Olivia Cammack and David Slacker against homeowners, with proceeds from false foreclosure. Judges (unjust, irresponsible, judicially disabled) include Warren Donohue, John Debbilus, Dunk Thimpmson, Ann Harrington, Louise Sertveier, Lawrence De Beard, Eric Johnson, James Mckenna, District Judges: Gary Evergann, Gary Crawford; court personnel/ sheriff, attorneys, affiliated law firms; Sheriffs Earnest Turner, R. Lewis, K. Naff, etc.

(D). Problems of privatization, irresponsibility, disabilities of government attorneys and judicial/legal/court personnel are very serious, expanding local-nationwide-global: exporting injustice overseas; Rockville city, Montgomery County, Maryland state; New Jersey Monmouth County, Judge Robert McLeod (private attorney), Judge Patricia Bueno Cleary, Prosecutor (private attorney) Patrick Healy, police David D. Arty.

(E). Besides corporate media, Public access channels have serious problems. Executive Directors, Board of directors, staff, instructors, volunteers; in MCT, Md., John Hansman, Larry Merewitz, Marian Merewitz, Kimberly Walkins, Laura Cooper, Bernard Dowell, Dee Willett, Nancy Poole. In FPA, Va, Chuck Penn, Georgia Graves, Robert Girtroso, David McAhtery (?), etc.

(F). Other people committed, conspired with police and fraud-crime-networks: Robert McCarthy (Bethesda, Md.), Olivia Cammack (Silver Spring, Md.), David Slacker (Bethesda Md.); Ria Roehwang (assigned as legal assistance provider to certain counties by Md. Department of Health and Mental Hygiene, but she went around the state for various abuses with Sherry Davis, Police Davis, etc. attorneys (public and private), Timothy Adelman, Esq., (?) and law firms Adelman, Sheriff and Smith (?), in Annapolis, Md), Robert McCarthy, Suburban Hospital, etc. Landlord/landladies e.g., Jiewen Tan (Rockville, Md) and Chia Yao (Gaithersburg, Md.) had been unjustly influenced/ conspired. (G). MURDER-FRAUD-CRIME-INJUSTICE NETWORKS inc. Montgomery County, Md; Nancy Forester, Roger Bonner, Valerie Evin, Sonya E. Healy, Esq. Legal counsel/Chief of staff (any relation to Patrick Healy, esq. in New Jersey?), Jackie Steward, court/judicial coordinators/substitute; Md. General Assembly, Jamie Raskin, U. S. Congress, Senate, legal staff; American U. administrative staff, security guard, students (4801 Massachusetts Ave., NW, DC); Catholic U.; US Institute of Peace; conference organizers/ speakers.