

1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

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4
5 PUBLIC MEETING ON PACKAGE PERFORMANCE
6 STUDY AND NUREG/CR-6672

7
8 Tropicana Hotel
9 3801 Las Vegas Blvd.
10 Hawaiian Rooms I and II
11 Las Vegas, Nevada
12 Tuesday, August 15, 2000

13
14 The meeting commenced, pursuant to notice, at 7:05
15 p.m.

1 PARTICIPANTS:
2 CHIP CAMERON
3 DR. SUSAN SHANKMAN
4 JOHN COOK
5 JACKIE GOFF
6 JOHN HADDER
7 BILL LEE
8 BILL LAKE
9 KEVIN BLACKWELL
10 KEN SORENSON
11 PETE DIRTMAAT
12 ANN BEIER
13 JERRY SPRINGER
14 KALYNDA TILGERS
15 WILLY FRAGOSA
16 ROB LEWIS
17 PAT HAGGERTY
18 TONY HECHANOVA
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P R O C E E D I N G S

[7:05 p.m.]

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3 MR. CAMERON: Welcome to the NRC's public meeting
4 on spent fuel transportation. We're going to do something a
5 little bit different tonight than we had planned.

6 For all of your information, we are going to be in
7 Pahrump tomorrow night to do a public meeting at 7:00 and
8 the purpose of the public meeting is to provide information
9 to the public on what the NRC's responsibilities are in
10 terms of radioactive material transportation and also to
11 talk about a study that we did on spent fuel transportation
12 risk and to talk a little bit about a new study that we're
13 doing.

14 Everybody that's here basically was here this
15 afternoon and so we thought that instead of going through
16 some presentations, which, albeit, were going to be
17 abbreviated anyway from this afternoon's presentation, since
18 you all heard the background, we thought that maybe we could
19 provide some more time and opportunity for people to discuss
20 issues with the NRC staff today.

21 We have asked the staff and the Sandia consultants
22 to come out here in the audience, so we could be more or
23 less one group.

24 Does anybody have an objection to that? Would you
25 like to be primed on the material again?

1 All right. Good. Well, you heard, there was
2 really three areas of presentation today and one was NRC
3 responsibilities for radioactive transportation. I mean,
4 within that category is what are other agencies'
5 responsibilities for transportation and we do have people
6 here from Department of Transportation, various offices
7 within Department of Transportation, and also the Department
8 of Energy.

9 So one area we could explore would be to make sure
10 that people understand what the different responsibilities
11 are of the agencies.

12 The second category of issues were presented by
13 the spent fuel transportation risk study, NUREG-7762 -- 7677
14 -- no, okay. But you know which one I'm talking about. So
15 there's a bunch of issues there.

16 And the study that is ongoing, the Sandia issues
17 study, has a lot of recommendations in it that people may
18 want to comment on.

19 I guess just to keep us a little bit organized,
20 does anybody have questions or comments on the
21 jurisdictional breakdown of NRC, DOE, and DOT
22 responsibilities in the area? Most of you are pretty
23 familiar with this.

24 I guess I would just open it up for any questions
25 or comments and we can see where that's going to go. I'm

1 going to go right here and right here, and if you could just
2 give your name and affiliation, if appropriate, so that
3 we're keeping a transcript.

4 MR. DIRKMAAT: I sat through most of the day. My
5 name is Pete Dirkmaat, I'm from the DOE Idaho Operations
6 Office, and have quite a few casks and other things under
7 license with the DOE, with the NRC.

8 I've sat through lots of public meetings. We had
9 24 of them, if I remember right, for the spent fuel EIS that
10 DOE did in '95, I sat through most of those. And I don't
11 know how the question was resolved before dinnertime, but
12 about full-sized cask testing or not doing that.

13 And I'm of the opinion that the only way I can
14 answer the public questions that I get in the public
15 meetings is to talk about full-scale testing. Not every
16 single cask in the license arena, but at least one that's
17 current, so that we can tell people, yes, the codes work and
18 we're good enough code and modeler people that we can do
19 simulated nuclear weapons on computer. We certainly ought
20 to be able to do casks on computers, cask accidents.

21 But the proof is in the pudding and I think the
22 public really wants to see the results of something like
23 that. And I know it's very expensive, but I don't know how
24 else to answer the question and put a lot of people's fears
25 to rest.

1 Now, I was involved with the foreign research
2 reactor shipment that came from the Far East and went
3 through California and Nevada. That is what triggered some
4 of the comments from the various groups, as we tried to get
5 through Nevada, as a matter fact.

6 And we had to go to all these meetings and try to
7 explain to them why a third-scale cask was okay, done 20
8 plus years ago, it is tough and I think that we ought to
9 really think about that.

10 So I guess my recommendation is we do it right, we
11 do it smart, we do it right, and try to get to the root of
12 the public's concern.

13 MR. CAMERON: That's great. Why don't we -- if
14 you could -- if you do have a card. Maybe it would be worth
15 it to just -- I think you heard Jon Hadder today and others
16 talk about the desirability of testing. Maybe it would be
17 worthwhile to see if anybody who didn't have a chance to
18 talk today on the desirability or undesirability of testing,
19 maybe we could follow that thread a little bit.

20 And I don't know if everybody -- does everybody
21 understand the one-third scale testing that people talk
22 about?

23 At any rate, someone may want to clarify that,
24 from our guys, at some point, but you -- why don't we go to
25 you and if you have any comments on the full-scale testing,

1 we'd appreciate that, also.

2 MS. BEIER: Good evening. My name is Ann Beier
3 and I'm the Associate Director at Western States Legal
4 Foundation, which is actually based in Oakland, California,
5 and we are one of those organizations that opposed the
6 return of the foreign research reactor spent nuclear fuel.

7 And as this man testified, it was enormously
8 controversial and there was tremendous lack of public
9 confidence in the plan and in the cask, not just from peace
10 and environmental organizations from California to Nevada,
11 but municipalities, the California Coastal Commission. I
12 saw Bob Alcock many times at these meetings, at Conversation
13 Development Commission meetings, having to defend the casks.

14 So I can tell you, in terms of the performance
15 package study, what would be of particular interest to the
16 Bay Area is -- which wasn't included -- would be maritime
17 accident scenarios. The Concorde Naval Weapons Station
18 receives these spent fuel shipments and they come through
19 the San Francisco Bay under the Golden Gate Bridge, through
20 the narrow straits, where there is a dense concentration of
21 petrochemical industries and it's a very treacherous
22 maritime route to follow.

23 So we would encourage you to look at things like
24 maritime fires tend to burn longer than rail or cask fires.
25 The submersion tests could be deeper and longer. In the

1 Bay, it can get to be as much as 300 feet deep.

2 So we would support more full-scale physical
3 testing under more accident scenarios, which would be more
4 inclusive of other accident scenarios.

5 MR. CAMERON: Thanks, Ann. I'm sorry that I
6 didn't recognize you from today, because I would love to
7 have had you up at the table with us.

8 Do you want to say anything about Western
9 Communities Against Nuclear Transportation, just tell people
10 a little bit about that?

11 MS. BEIER: Sure. Western Communities Against
12 Nuclear Transportation formed about three years ago in
13 response to the foreign research reactor spent fuel
14 shipments and as I alluded to earlier, it included peace,
15 environmental and tribal organizations throughout
16 California, Nevada and Utah.

17 The shipment route from Concorde to INEEL, or the
18 Idaho National Engineering and Environmental Laboratory.

19 So it included groups like Citizen Alert and
20 Grandmothers for Peace in Sacramento and -- can you remember
21 some others, John? Downwinders, Tri-Valley Cares, West
22 County Toxic Coalition, which is in Richmond, Margie
23 Bowcreek from Skull Valley Goshutes.

24 So we formed an alliance to try to learn as much
25 as we could and inform the public about this Department of

1 Energy program. I don't know what else to say.

2 MR. CAMERON: I think that's a good introduction
3 for a question I would have for NRC and Sandia. The type of
4 fuel shipments that Ann and her colleagues are worried about
5 may not fall or does not fall under NRC jurisdiction.

6 But this -- I'll ask it as a question. Does the
7 cask study, the package performance study that we're doing,
8 will that study be applicable to the types of shipments that
9 Ann has been talking about?

10 MR. SPRINGER: Jerry Springer, from Sandia. We
11 did part of the package -- I mean, of the foreign research
12 reactor study. A cask doesn't know what causes the forces
13 that it experiences, so it doesn't matter whether it's a
14 maritime shipment or a truck shipment or a rail shipment.

15 If you can properly calculate for a set of forces
16 how the cask responds, then if you get to that set of forces
17 in a maritime accident, the cask will respond that way.

18 So that in point of fact, if you can do a set of
19 studies that show how the cask responds to a range of
20 forces, you'll get the answer you're looking for.

21 MR. CAMERON: We're going to go to Ken.

22 MR. SORENSON: Ken Sorenson, from Sandia. Just to
23 add on to what Jerry said. We also did some fairly in-depth
24 analyses of shipment by sea of radioactive materials and a
25 lot of the concerns were what happens if you have ship

1 collisions and you have 1.5 billion foot pounds of kinetic
2 energy going into that cask, and that was an issue we felt
3 we needed to address and see how the energy actually was
4 dissipated and as Jerry said, what we found was that those
5 type of collisions and accidents were enveloped by the
6 regulations and certainly by the analysis that we've done in
7 6672.

8 MR. CAMERON: We're going to go over to Kalynda,
9 but would the study that Sandia is doing, would be as
10 applicable to the casks that are being used to ship --

11 MR. SORENSON: There is a report on the study of
12 the maritime transport accidents that we conducted that
13 could be made available to you, if you like, we can send it
14 out to you.

15 MR. CAMERON: Okay. Let's make sure we get that.
16 Kevin?

17 MR. BLACKWELL: I just wanted to add to that, and
18 I'm speaking from my other hat in the Coast Guard, I'm still
19 in the Reserves. I believe the Coast Guard has looked at
20 that aspect, as well, and this goes to the probability of a
21 collision with a vessel carrying this, because the Coast
22 Guard has very strict security and safety zones that are set
23 up when these vessels come in and a ship is not going to
24 sneak into that security zone to have a collision, and these
25 are done from the sea buoy on in.

1 Now, on the high seas, if you're concerned, that's
2 a different matter, I guess. But in coastal waters and
3 restricted navigable water ways, the Coast Guard has a very
4 extensive program on certain types of vessels and certain
5 types of cargo vessels are carrying, as to what they're
6 going to do as far as moving security in safety zones.

7 MR. CAMERON: Do you have a follow-up right now,
8 before we go to Kalynda? Let's get you on the record here.

9 MS. BEIER: Not just possible accidents, but both
10 in the EIS and I actually heard a Lieutenant Commander from
11 the Coast Guard say if a cask were to fall into the ocean,
12 it would be difficult to retrieve. It didn't say
13 impossible, but, I mean, that's -- or even the Bay, certain
14 parts.

15 MR. CAMERON: Okay. Kevin, even though we're
16 informal, we still need to get you on the record.

17 MR. BLACKWELL: My point was that in restricted
18 navigable water ways, with shipments of spent nuclear fuel,
19 they are not going to come in unescorted. So what could
20 happen that would cause that cask to possibly end up at the
21 bottom of the San Francisco Bay is very much more improbable
22 as far as a collision with another ship and anything
23 happening on that ship. You're going to have people that
24 are there to deal with if a fire breaks out, the people are
25 already there on the scene is my point.

1 So it's a little different scenario as to what --
2 the probability of that happening in a restricted navigable
3 water way.

4 I admit, on the open seas, in the crossing, that's
5 a different matter.

6 MR. CAMERON: Okay. Let's go to Kalynda.

7 MS. TILGES: I'm Kalynda Tilges, Nuclear Issues
8 Coordinator for Citizen Alert here in Las Vegas. I speak to
9 you from that perspective, but I also speak to you from
10 being a mother and a person of the public. I've lived in
11 Las Vegas since '79. I've raised three children and a
12 grandchild here. So I have two perspectives on this.

13 I think I understand a little bit more of the
14 technical than maybe a large number of the public, because
15 it is my job as well, but I do come from a public
16 perspective and I think that's mostly how -- the comments I
17 want to say. There's going to be a few, because I have to
18 leave in a few minutes. I will be at the meeting at Pahrump
19 tomorrow night.

20 I fully support full-scale testing and not in
21 ridiculous scenarios, not necessarily things that can't
22 possibly happen, though I wouldn't mind that, too, just to
23 show more integrity. But for the public to really -- do you
24 want public support or do you want public buy-in?

25 If you want buy-in, you can feed them anything.

1 Market it to us. But we don't want to be marketed to. We
2 want to know the truth. We want you to do the things the
3 right way, all the way, and the idea, just the very idea
4 that it would be based on whether you would do the right
5 thing for the public, the American public, your families, as
6 well as mine, and base that on something as base as money,
7 not only do I find insulting, it's unethical and it's
8 immoral. There should be no price tag on the safety of our
9 families and the American public.

10 It shouldn't happen. Full-scale testing should
11 happen on casks that are going to be used. If you're going
12 to use casks that are obsolete, why are they obsolete?
13 Don't make regulations, don't make rules, and then -- you're
14 doing everything backwards. It doesn't make sense to the
15 people, and we don't want to be marketed to.

16 MS. SHANKMAN: You seemed to be talking to me, so
17 I wanted to just clarify. Okay. I think that that is why
18 we're here. We have not designed the study. We've brought
19 the issues out and we want you to make those comments.

20 I think other people suggested that we use -- they
21 used the term obsolete, but I don't know what that means.
22 If it's a cask that meets our standards, that would be
23 certificated now and could be used to transport spent fuel,
24 then it's not obsolete. It's a cask that could be used and
25 we would use a cask that met our standards.

1 The second point you raised was a question of
2 money, and I think I said let's take money off the table and
3 find out what is wanted first, before we start putting price
4 tags on it. So I agree with you. We first have to decide
5 what's the right thing to do and then we have to find a way
6 to either fund the money or understand why we can't fund the
7 money.

8 MR. CAMERON: And, Kalynda, I want to ask you a
9 question, too, if I could. John, today, in talking about
10 full-scale testing, said that it would be great if it was
11 done because it would mean a lot to the constituents that
12 you have and talking to them and explaining risk.

13 I think at some point today, we heard someone say
14 that, well, it doesn't really matter because people are
15 going to be against it anyway.

16 I just wonder if you had any comments on that,
17 either one of you or both of you. Do you know what I'm
18 asking?

19 MS. TILGES: Well, since I have to leave, I'm
20 going to grab the mic first, and if John has anything to
21 say, he can say afterwards.

22 The people that I talk to, I think it would
23 greatly instill confidence in them. The people that I meet
24 out in the rural counties, out here in Las Vegas, the people
25 who call my office, the people that I talk to in the grocery

1 store line, I hear a lot of we're going to get it anyway.
2 It doesn't matter what we want. It doesn't matter. They're
3 just going to shove it down our throats and there's nothing
4 we can do about it.

5 That doesn't sound like trust to me. That sounds
6 like resignation of being screwed over by someone they've
7 been screwed over for a really long time and they've just
8 given up all hope.

9 That doesn't make for a very good process. There
10 has been enough trust lost at this point in the game that it
11 may take repeated testing, it may take repeated honesty, it
12 may take an oversight of what the scientific and the
13 technical minds think is necessary.

14 But, again, that brings us to the point of do you
15 want buy-in or do you really want support. If you really
16 want support, you have to make sure they trust you, and if
17 you want them to trust you, then you're going to have to
18 really prove it to them, because you've not done so in the
19 past. And when I say you, it's a collective you for all
20 government agencies that have to do with this project.

21 They've been -- as you can see from the
22 compensation bills that are in Congress now, they have been
23 lied to in the past and there is no reason to think that
24 this is just not another compensation bill yet to be.

25 So that's what I have to say about it. I have one

1 more thing I wanted to add before I leave, is that I don't
2 want everybody here to take the lack of the public being
3 here as a disinterest. I take it as a lack of
4 advertisement. You're really good at advertising how good
5 this is going to be for us, but when you put a little tiny
6 blip in the newspaper two or three days before this public
7 hearing, no one is going to see it.

8 I understand there's no money for coffee from the
9 government. Okay. But in an issue as important as this, as
10 I told Chip today, PSAs over the radio and television cost
11 nothing. Blips on the news cost nothing. I'm Nuclear
12 Issues Coordinator for Citizen Alert here in Las Vegas and I
13 didn't know this was going on. Not everyone has access to
14 the internet, not all public people have the time to dig
15 through the Federal Register or the state's web sites to
16 find these meetings.

17 If you want support, if you want them here, you
18 have to go to them and let them know you're here and willing
19 to work with them, and that means by all methods, radio,
20 television and newspaper, on a repeated basis.

21 MR. CAMERON: And I would probably -- I don't
22 know, John, if you have anything to say about the question
23 that I asked. I think maybe Kalynda said it all.

24 But we try to do our best on notification, but we
25 can always do a much better job and I think you've given us

1 some suggestions.

2 And we're going to go right over here, right after
3 John.

4 MR. HADDEN Hopefully advertisement can be better
5 in the future, and this has been a common theme. The only
6 follow-up comment I had as far as the testing, as I said
7 before, I think the criticism is that sometimes, well, no
8 matter what we do, no one is going to trust it, and I don't
9 think that's true.

10 I think what has to be, as meaningful, as I said
11 before, the testing has to be meaningful. It can't just be
12 something that doesn't connect to anything, because
13 otherwise, like, okay, that was fine, but how does that
14 connect to the regulations, how does that connect to the
15 modeling process, how does that connect to the real world.

16 As long as I think it really does do that, then I
17 think it is meaningful and organizations like Citizen Alert
18 will say, okay, well, that makes sense.

19 That's something we can explain to the
20 constituencies, as well. We can pass that on. We can
21 support that if it does one way or another.

22 So I think that's the key issue, meaningful.

23 MR. CAMERON: I think that is important for all of
24 us, though, to hear that issues like testing and scientific
25 verification can have an impact. Yes, sir?

1 MR. FRAGOSA: Good evening. My name is Willy
2 Fragosa. I'm a concerned citizen. I feel like I speak for
3 many different people. And, once again, I feel disappointed
4 in coming to a meeting in a place like the casino here, when
5 instead we should be at a community building somewhere,
6 where the real public is.

7 This is not a place where your real citizens are
8 going to just be here. This is a place for people to come
9 and -- it's a resort. You may be very comfortable here, but
10 where is the public that this is supposed to be tuned into?
11 I feel ashamed for this.

12 This is really a shame. You spend a lot of money,
13 but who does it reach? Yourselves, again. I've gotten a
14 lot of realities and a lot of different things with nuclear
15 issues and a lot of times, we speak to ourselves, just like
16 here.

17 I don't know what the answers are on that.
18 Perhaps you could spend a little time in outreach and maybe
19 not so much on verbiage.

20 I come in here and I can understand, I've been
21 educated somewhat, I can understand, but it's like why talk
22 this way? Why can't you just be plain and simple and just
23 really communicate?

24 You keep speaking this way of like you're in the
25 lab. You're not. I'd really like to be at one of these

1 gatherings, information gatherings and really be informed
2 and feel like something really is happening, for myself, and
3 my truth is that I don't want to see any transportation at
4 all.

5 The people that I work with, we would like to see
6 it contained on-site, no more created. I understand the
7 forces of politics and living and necessity, I guess you
8 could say. But, you know, I mean, this is terrible timing.
9 There's a convention going on, there's a lot of different
10 things going on, and I don't know if, once again, this is
11 like timed in some way, but many people that would like to
12 be here, it's not possible.

13 In Pahrump, I'm sure you'll find the same. You
14 can consider those types of things when you look at the
15 calendar and you see what's going on. I am part of this
16 process, but I am really interested in what's going on in
17 that part of the world, also.

18 It ties in exactly with what is supposed to be
19 going on here. This is supposed to be the process where the
20 citizens really become involved with you to carry forward
21 what's best for all and not just the vested interests,
22 because we all have to live in this world. Each one of your
23 kids, grandkids, all those tourists out there, we all have
24 to live here.

25 I'd say that here I am and I feel like I represent

1 that last drop of water, that last bit of dirt that's still
2 pure, and where are we going? Think about it, please. When
3 you're in your lab, when you're at your computers, think of
4 real life, take a moment.

5 Go back to maybe a childhood time, a time when
6 perhaps you really felt a connection with this earth. Think
7 back. Each one of us has had that experience. Draw on that
8 to make your decisions and to do what's right for life,
9 because that's life speaking to you.

10 Not so much here, in some of the -- we get lost in
11 the words and it leads to all kinds of tunnels, especially
12 with these scientific terms, that really the general public
13 won't understand.

14 What we do understand is that it's complex and
15 it's a threat, and I would like to see some real progress.
16 I've been around some of these talks for a while and, once
17 again, I'm still hopeful that somehow something will be
18 pulled out that will be of real value to life.

19 Thank you.

20 MR. CAMERON: Thank you. Thank for those
21 heartfelt words. On your first point about meeting in
22 communities, we need to keep doing a better job of outreach.
23 But I think I could speak for the NRC, at least that if you
24 have community gatherings where people, membership are
25 together, if you would invite the NRC to come there and sit

1 down and talk, I mean, we would be glad to consider that.
2 So that's another way to look at it, too.

3 We just don't want to connect through these formal
4 meetings. So that's something to think about.

5 Anybody else have some comments for us on any of
6 the issues that we were talking about? I know we have some
7 guests from DOT who might not perhaps get involved in these
8 particular areas, but do you have anything that you'd like
9 to follow up on, Jackie or Pat?

10 MS. GOFF: Jackie Goff. I'm Program Director in
11 the Office of Inspector General, DOT. So we're really
12 looking at this issue and I will just make this an open
13 invitation. Kevin and Mike know us, but if any of you, on
14 any facet of this, from the DOT perspective, we are doing an
15 audit, which I think is going to end up to be some sense of
16 a blueprint for the Department of Transportation, of what it
17 should be doing as a whole, not just its pieces from FRA or
18 RSPA or Coast Guard, if it comes in from the coast, the lady
19 was talking about what's coming in from Hanford.

20 We actually this week have some of our team at
21 Hanford. We're going to be going to Savannah River. We're
22 looking at all aspects of the transportation.

23 You're obviously concerned with Yucca Mountain,
24 but we've been to INEEL, we've been to WIPP, we're looking
25 at not low level and not military, but we're looking at the

1 transuranic and then the issues that you have of the spent
2 nuclear fuel.

3 So if there is anything that you think would be
4 helpful for us, if you would forward that to us. My only
5 concern is that DOT, as representing DOT globally, has not
6 been much of a player in the last five to seven years, as
7 this has been NRC routing their issues, DOE routing their
8 issues, and only once it gets on the highway, then we'll
9 worry about the DOT issues, the inspection and the safety.

10 Yet, you have the Secretary of Energy agreeing
11 with the Governor of Missouri that Interstate 70 isn't safe
12 enough to have something travel there. That, to me, with
13 all the money that comes out of DOT for mega projects, is an
14 issue.

15 If it's railroad crossings, it's DOT and it's an
16 issue. If it's the safety of a bridge in a routing, in a
17 segment, it's a DOT issue.

18 So my concern is that we not get too much further
19 along and we have DOT representatives speaking globally up
20 there, not sitting back here, and that we are full players
21 in not waiting until the EIS comes into comment, but perhaps
22 have something to say as it's developed.

23 So I just throw that out, but that's where we're
24 going in the next several months. We would be happy to have
25 you all educate us further.

1 MR. CAMERON: Thank you, Jackie, and glad that
2 you're here. I have to, for the NRC, again, thank the
3 Department of Transportation representatives who, over the
4 past year, at least just in my working on this, who have
5 helped us out with the meetings and been up front with us.

6 But I guess the one question I have for you is do
7 you think, as a result of your audit, that maybe DOT will be
8 more assertive? I'm not making any judgments about whether
9 they've been assertive or not, but more assertive in perhaps
10 doing their own public meetings out here and listening to
11 the public in terms of what their issues are?

12 MS. GOFF: As we all know, it's going to be an
13 election and a transition. The only thing I can promise for
14 the DOT is once we're done, they'll be more informed. After
15 that, as for everyone, it's a policy decision. All the OIG
16 does is usually give program recommendations back, whether
17 it's a specific agency or sub-component. So I wouldn't even
18 fathom a guess.

19 MR. CAMERON: Okay. Well, maybe, would you
20 entertain some questions if people -- does anybody have a
21 question for the people from the DOT, IG, Inspector
22 General's Office? Just tell us your name again.

23 MR. DIRKMAAT: Pete Dirkmaat, DOE Idaho. I've
24 been involved in the FR shipment through California and the
25 decision of on Missouri, go through Illinois, it just

1 happened, and I think you bring up -- and we've got West
2 Valley shipment coming next summer, which will be a big
3 shipment.

4 I think you bring up a real good point, though.
5 We have to have enough information, however we do it, that
6 the politicians that have to lead the citizens in the
7 various jurisdictions have to have sufficient information to
8 defend their actions.

9 Now, what happened in Missouri really didn't have
10 a lot to do about the condition of I-70. It had a whole lot
11 to do with who was running for Senate in that state. And it
12 has bothered us a lot about how that whole mechanism
13 happened, because on a technical basis, you can do this.
14 But we deal -- and these shipments, these FRR shipments and
15 now the West Valley shipment and other ones coming along, we
16 deal in the realm of politics and we have to have sufficient
17 information to go to the decision-makers in the various
18 jurisdictions, whether it's the county sheriff in Elco,
19 Nevada or the Governor of Missouri, wherever, and be able to
20 provide clear information to them that they can reach a
21 decision whether it's good or bad for their citizens.

22 Then they have to, of course, be on the firing
23 line when the citizens get interested.

24 And I think that's an important part and that's
25 why I said earlier full-size cask testing. I've been in the

1 position of trying to fend something less than that and it
2 doesn't wash.

3 They don't go out and test one-third-scale cars
4 before they put the cars on the market, and everybody knows
5 what the car makers do. They're not perfect when they get
6 done, but people have some confidence in the safety ratings
7 the government gives them after those crash tests happen.

8 So I think you've got to look at it from not just
9 the technical aspects. I think those are easy, actually.
10 It's the persuasion part of it that has to be looked at DOT
11 has helped us a lot in the last couple of years.

12 I don't know if any of you follow the rail
13 shipments, but the rail shipment from California to Idaho a
14 couple years ago was done as if President Clinton himself
15 was on that train, same kind of track checking was done. We
16 had to have trains ahead of the real train.

17 I think I counted 22 additional things that we had
18 to do that were more than required by the law and the
19 regulations in order to make that shipment.
20 It was helaciously expensive. It cost a lot of money to get
21 through there. I'm the one that distributed the money for
22 that thing. But we got through it and we got through it
23 safely.

24 But these are all things to consider, because as
25 shipping picks up in frequency, you're going to have more

1 and more of these situations where people need to be
2 convinced that it's safe and they hear -- it's easy for them
3 to hear the negative side of the story all the time. It's
4 important for us in the community anyway to figure out how
5 to attack those concerns, do whatever we can in the
6 technical sense to put them to bed, and then have the public
7 interactions to help them at least understand what it is
8 we're doing and why they can sleep at night knowing that a
9 train might be going by a mile from them and they don't have
10 to worry about it, because I see some real fear in the
11 public, in these public meetings that I've been to.

12 Thank you.

13 MR. CAMERON: Thank you. Do we have a follow-up
14 to those remarks or to Jackie's statement? John?

15 MR. HADDER: John Hadder. Just a thought that
16 occurred to me is that in pursuing this kind of work, I
17 think it's important to really take that conservative
18 approach, and I mean it in a way of saying think of yourself
19 as not being in a position of I believe this is safe
20 already. Start from the position of assuming maybe that
21 it's unsafe.

22 So I guess my concern is that a lot of times, we
23 develop confidence around something, we make inherent
24 assumptions that we're not aware that we're making.

25 So I think we have to be cautious that we don't

1 take the approach, that an approach is not taken that let's
2 just find the argument that will convince the public.

3 Let's rather take the tact of, well, I don't think
4 it's safe either, so we need to do this, this and this.

5 So I think we have to be careful with that,
6 because we have seen, there's a history of disasters that
7 revolve around those confidence assumptions and I think that
8 the downside of it is the results could be catastrophic, if
9 there was a severe accident, it could be -- that's always
10 out there.

11 So let's be prepared to not be over-confident and
12 really approach it in a proper conservative, and I would say
13 that's how good science is supposed to be, because looking
14 at it from a scientific perspective is to cast out
15 immediately and fend it off.

16 Thank you.

17 MR. CAMERON: Thanks, John. Anybody else have a
18 comment, question at this point? Ann?

19 MS. BEIER: I was wondering if somebody from NRC
20 or Sandia could speak a little to how external contamination
21 of casks happen? For example, in May of 1998, there were
22 shipments to the reprocessing plant in France, which the
23 casks were found to have external contamination. It was
24 quite controversial.

25 I never learned the reasons for that. Also, I was

1 wondering if you could speak to weeping, how bacteria have
2 been found in the wet ponds and they get on the outer shells
3 of the rods, not the casks, and potentially could corrode
4 the metal.

5 MR. CAMERON: We have two questions, one on
6 external contamination and one on weeping. We're going to
7 go to John Cook for starters on both of those issues.

8 Did you understand Ann's questions and possibly
9 have heard about the external contamination in the French
10 example?

11 MR. COOK: I believe the cause for the
12 contamination of the French packages, it was in how they
13 were handled, in that those packages are handled near a
14 water environment. And if you get water on the external
15 surfaces of the cask that have radioactive material in them,
16 that material can dry out on the surface of the cask, so it
17 becomes contaminated.

18 This happened over a relatively large period of
19 time there and eventually that contamination was discovered.
20 Some of the casks had been shipped repeatedly in this
21 condition, so that some of the contamination had, in fact,
22 fallen off of the cask and had built up on some of the rail
23 conveyances that were used to ship these casks back and
24 forth.

25 Once that situation was finally discovered,

1 appropriate measures were taken so that in the future, those
2 parties that were loading the casks were much more careful
3 about following the applicable limits that are in place for
4 contamination, such that shipments made currently are within
5 the acceptable limit of contamination that applies to all
6 packages.

7 With regard to the -- I guess I'd have to ask
8 again about the second question. That one I'm not quite so
9 sure about.

10 MR. CAMERON: What causes weeping, what is known
11 as weeping?

12 MR. COOK: In the radioactive materials sense of
13 weeping, it goes back to this contamination, in that the
14 contamination can appear to be fixed at the time the cask
15 departs a facility. That is, if you were to take a small
16 piece of cloth and rub over the surface of the cask, the
17 contamination would stay fixed to the surface of the cask,
18 but during some transports, this contamination, which is
19 fixed at the beginning of the shipment, becomes loose during
20 the shipment and this process of contamination which is
21 fixed at the beginning of the shipment and becoming loose
22 during the shipment is called cask weeping, but this is
23 about -- in this term, anyway, this applies to radioactive
24 material contamination becoming dislodged, if you will,
25 during the shipment.

1 I'm not quite so sure about the bio -- I'm not
2 sure about the other part of that you mentioned with respect
3 to a biological aspect to it, though. But that's what cask
4 weeping is in the radioactive sense.

5 MR. CAMERON: Thanks, John. Ann, was there
6 another part to that? Did that answer your question?

7 Does anybody else have anything to add either on
8 the external contamination or the weeping issue? The
9 relationship to issues such as external contamination and
10 weeping, these are NRC. This would apply to things that NRC
11 had jurisdiction over. Do you understand that?

12 MS. SHANKMAN: John, when something is shipped, it
13 has to meet certain standards to be shipped. But are there
14 also standards for receipt of packages, when packages
15 arrive? If you'd explain that a little bit.

16 MR. COOK: What Susan is referring to are
17 requirements in our regulations that when certain packagings
18 are received by our licensees, they need to be surveyed both
19 from a radiation level standpoint and a contamination
20 standpoint, to see whether the packages are in accordance
21 with applicable regulations.

22 So there are, under certain conditions,
23 requirements for receipt surveys on these packagings.

24 MR. CAMERON: Okay. Why don't you add that punch
25 line for it?

1 MS. SHANKMAN: What I'm trying to say is we have
2 standards for when it leaves. This is in counterpoint to
3 the French experience. We also have standards for when a
4 shipment is received, so we would know if there was a
5 greater contamination at the end of the shipment.

6 Because if I were you, I would wander, well, if it
7 weeps, who knows if it weeps, and I guess John has the
8 degree in health physics and I'm just -- I'm a manager. So
9 anyway.

10 MR. CAMERON: Bill?

11 MR. LAKE: Thank you. Just to add to the
12 confusion a little bit, I think you do have to understand
13 that weeping, and I think you do, but just to make sure
14 everybody does, weeping just occurs at the surface. It's
15 not contents of the cask weeping out. It's only a surface
16 phenomenon when you put a cask in a pull to load it, you
17 pick up some contamination.

18 And different environmental conditions can cause
19 that fixed material to become unfixed and that's when the
20 so-called weeping occurs.

21 MR. CAMERON: Thanks for that clarification, Bill.
22 Kevin?

23 MR. BLACKWELL: I may be stating the obvious here,
24 but I'm going to state it anyway, because just for clarity,
25 in case some folks in the room might not be aware.

1 The NRC, of course, has requirements for their
2 licensees regarding transportation, in addition to the
3 packaging and loading and everything else.

4 I want to touch on this from the aspect of someone
5 who may not be an NRC licensee. The DOT regulations also
6 cover external contamination and radiation level limits for
7 packages and transportation. So don't get confused, don't
8 want anybody thinking that these rules only apply to
9 shipments of packages being made by, to or between NRC
10 licensees.

11 It may sound kind of obvious, but I thought it
12 should be stated anyway.

13 MR. CAMERON: I think it's good to state that,
14 because some of the concerns that Western Communities have
15 are with non-NRC jurisdiction shipments.

16 Anybody else have a point they'd like to bring up
17 about any of this? Since we have, it seems, the luxury of
18 being able to address some of these issues or answer
19 questions on some of these things. Yes, John. I knew I was
20 going to get you.

21 MR. HADDER: Why not. I just wanted to -- I guess
22 I just wanted to -- I think I may have stated this before.
23 I just want to make sure, though. The package, the report
24 that we discussed today, I guess I'm kind of -- I have a
25 concern about the emphasis on severe accident conditions

1 precluding the possibility that it could be used to examine
2 licensing criteria and that sort of thing.

3 I just wanted to make sure that concern was really
4 out there. I understand the need to look -- I understand
5 why the severe accident scenario is a piece of it, to sort
6 of complete the picture, to get kind of an upper bound on
7 what can really happen, I think that's really important.

8 But it seems to me that out of that study can also
9 come valuable information in examining what we use to
10 license around it.

11 So I just wanted to make sure that every
12 opportunity is made use of to examine that. Anytime you do
13 any more testing, it seems like the opportunity is there.

14 MR. CAMERON: Good. And I think I'm going to ask
15 Rob Lewis from the NRC to just tell us a little bit about
16 what the scenario is going to be for the Sandia study. What
17 is going to happen with the comments that are going to come
18 in, how they're going to come in, and then what Sandia is
19 going to do with that and when there actually might be some
20 testing, for example, if that's what there is to be, and
21 when the whole thing will be ready for further use.

22 MR. LEWIS: Sure. I can try to remember all that.
23 John, I just want to say that we agree with you that
24 certainly we can use what we're doing here to focus our
25 efforts on what are the most important to safety and how we

1 do risk studies and in how we do cask certifications.

2 So that is an important part of what we're trying
3 to accomplish with this project.

4 Now, as far as the next steps in the package
5 performance study, we have the issues report published. We
6 did that on June 30th. These meetings are to focus people's
7 attention that the issues report is out there and we're
8 asking for feedback on it.

9 We have asked for -- in the issues report, in the
10 first chapter, it asks for comments by September 29th.
11 That's not a drop-dead date or anything. We're just trying
12 to keep the process moving.

13 So if comments come in after that, we certainly
14 would consider them, as we could.

15 The next step would be for NRC to take back the
16 information we get from Sandia, what's in the issues report,
17 and from the public as far as feedback on the issues report.
18 We may need to revise the issues report, we may not need to
19 revise the issues report. We might just want to supplement
20 it by using an addendum or something.

21 But as soon as we do that, NRC has to decide,
22 through a contract, what the next phase of the package
23 performance study will constitute and by that, I mean we
24 would -- we'll get a proposal from Sandia, we'll accept the
25 proposal using the government contracting process, and that

1 proposal will outline the scope of work that will be done
2 for the rest of the package performance study.

3 The second phase would be to plan for the tests.
4 We'll continue the public interaction process during that.
5 The third phase would be to conduct the test and analysis.
6 We would actually do the analysis before we did the test,
7 because we want to show that we can appropriately do
8 analysis.

9 And the fourth step, fourth phase of the project
10 would be to document what we've done in both a technical
11 report and a publicly consumable, understandable version.

12 That's all going to take several years. But in
13 the near term, what we're trying to do is get feedback,
14 positive or negative, on the issues report. By the end of
15 the year, we hope to have accomplished the contracting for
16 the next phase.

17 MR. CAMERON: Thanks, Rob. Do we have any
18 questions for Rob on that, on the process? Susan?

19 MS. SHANKMAN: I just wanted to make it clear that
20 the process that Rob outlined, the second phase is the
21 design of the study and I heard a lot today about people
22 wanting to see that design out for public review, and I
23 think we'll have to look at how we will do that.

24 But I think it's something that would be
25 desirable. The selection of a contractor, I saw some people

1 go, you know, well, how do you know you're going to use
2 Sandia, and I guess we can talk about that, but the NRC
3 contracting process with DOE labs is a process that we have
4 been using and we have not used a commercial contractor in
5 this, because we qualified Sandia at the beginning of phase
6 one.

7 So the questions were at each phase of the study,
8 we have had an option to continue with the contract or not,
9 and I wanted to make that clear.

10 MR. CAMERON: Thanks, Susan. Let's go over this
11 direction to Idaho.

12 MR. DIRKMAAT: I just have a question for the NRC,
13 because we have a lot of controversial stuff in DOE that we
14 can't ever hardly solve, but we do use the National Academy
15 of Sciences and National Research Council for independent
16 review of our recommendations about what they think the path
17 forward should be.

18 In fact, we just used them in Idaho for a high
19 level waste study. We have liquid waste. We've got to
20 figure out how to make glass or something out of it. So it
21 takes about a year, year and a half, but we do get an
22 independent answer that we then look at and see if that
23 makes sense to us.

24 It gives the public some sense that it isn't just
25 what DOE wants to do. Does the NRC approach allow these

1 kind of peer reviews or because you're regulators, you
2 really can't do that? It's just a question.

3 MR. CAMERON: And we're going to come back to
4 Jackie for a question or comment on that, but does anybody
5 from the NRC want to address this? Basically Susan is
6 indicating that, yes, we can and do use the National Academy
7 of Sciences. In fact, we're negotiating a contract with
8 them now on an issue called the clearance of radioactive
9 materials, which is related to recycle and things like that.

10 So that vehicle is available, and I think that as
11 was demonstrated today, I don't want people to think that
12 there is some reason that we're not going to use Sandia
13 either, is that they have a lot of experience, obviously,
14 and get a lot of kudos today for the report that they did.

15 Let me go to Jackie first.

16 MS. GOFF: I just have a question. You're talking
17 about this point in the issues for your study and then
18 whatever you do and then deciding how involved your test
19 will be, full destruction or something else.

20 But there are funding issues in there, but there's
21 stuff moving that's not coming to Yucca. I mean, it's
22 coming in to either side of the country and it's moving a
23 little bit and we need casks.

24 I guess my question is how do you back your
25 timeline to allow your procurement issues, to find someone

1 who is willing to build these things and get them ordered
2 both in time for these movements.

3 MR. CAMERON: Maybe I think that the question is,
4 and it's an interesting one, if we were going to do
5 full-scale testing, what are the logistics, logistical
6 issues surrounding that.

7 Ken, go ahead.

8 MS. SHANKMAN: Well, we can talk about the
9 procurement, but the shipments that you're referring to are
10 done by the Department of Energy and they do not fall under
11 NRC jurisdiction.

12 MR. CAMERON: Let me get this on the record and
13 make sure that we understand exactly what your question is.
14 I wasn't sure whether it was related to the actual testing
15 of a cask or whether it was related to transportation that's
16 ongoing while we're doing this study.

17 Do you want to clarify that?

18 MS. GOFF: Yes. I'll clarify my confusion. My
19 confusion is I understand there is stuff coming into the
20 country and some of it is only staying in Hanford or staying
21 where it hits the coast, and it's moving, at least some of
22 it is moving short distances. That may be DOE.

23 NRC, if they're doing something else -- okay. The
24 cross-country shipments are still DOE.

25 My point is regardless of even if it's only NRC,

1 what it's responsible for, if you back it out, the timeline
2 of doing all this testing, the budgeting for it, at what
3 point you decide the design specs that you have, are you
4 going to have enough lead time to find someone to make this
5 and make enough of them and are you making your decisions
6 that they're highway or they're rail, because you're going
7 to have two different ones.

8 It seems like everyone is just sort of talking
9 about is if we have the luxury of just thinking about
10 forever when we're going to come up with the design specs,
11 with no idea of how long it would take for someone out there
12 to decide this is a business worth getting into and they can
13 get them made fast enough to be available in the quantities
14 you need.

15 MR. CAMERON: I think that we're confusing testing
16 with the actual fabrication of casks for real shipment, and
17 I think what you're asking about is the latter question.

18 In other words, who is in the cask business these
19 days and we have someone here, Bill Lee, who -- maybe you
20 could just tell us about what the state-of-the-art is, so to
21 speak, Bill, on all of this.

22 MR. LEE: Let me clarify one point. The foreign
23 research shipments, they do get an NRC license amendment to
24 carry that fuel as contents. The actual shipment is not an
25 NRC shipment, it is a DOE shipment, but there is an NRC

1 license to it.

2 As far as like, for instance, the LWTs, we
3 actually are finishing three additional LWTs right now. We
4 started fabrication about a year and a half ago and they are
5 just being completed within the next month or so.

6 And so it depends upon the need or the rush for
7 them. And, also, to supplement some additional information
8 on cask weeping, the loading of the LWTs for the foreign
9 research reactor shipments, the LWT cask that actually
10 carried the fuel coming back is not, repeat, is not put into
11 the water. So it's loaded with a dry transfer system. So
12 that's why it doesn't go into the water.

13 And, also, in addition, the casks are contained in
14 iso containers, completely surrounded and sealed, like a
15 cargo handling container.

16 Do you need anymore information on that?

17 MR. CAMERON: If you do, please speak to Bill Lee,
18 who is with NAC International and was here with us today as
19 a representative of the American Nuclear Society.

20 Did you have another point you wanted to make?
21 Okay. Kevin?

22 MR. BLACKWELL: Dr. Shankman asked me to clarify.
23 Anybody here not familiar with the term LWT? It's light
24 weight truck. Not legal weight tanker or anything else that
25 you might think. So light weight truck is what it stands

1 for -- I'm sorry -- legal weight. Excuse me. It's been a
2 long day.

3 I'm going back, I'm going to jump back a little
4 bit and I wanted to bring out a point that -- only from the
5 experience I recently had. There was talk about using the
6 National Academy of Sciences as a peer review.

7 I guess I want to put this out as a caution, I
8 guess, to folks dealing with that. I was at a meeting at
9 the Western Governors Association a few weeks ago, where
10 there was an NAS study that came out with some
11 recommendations and I'm trying to remember exactly what was
12 that -- but my point here is that there were folks in that
13 meeting who did not necessarily buy into the NAS as a body
14 that could -- they would just, oh, well, okay, that sounds
15 great.

16 So I didn't want anybody getting the impression
17 here that when you say peer review, there's folks out there
18 that don't necessarily believe that the NAS is someone who
19 may always be able to be trusted or whose recommendations
20 can be -- are without fail or without question.

21 So that's just a point I wanted to bring up, from
22 a recent experience.

23 MR. CAMERON: Thank you, Kevin. Pat Haggerty, did
24 you have a point that you wanted to -- did you want to raise
25 a point? You don't need to. I just thought that you had

1 your hand up before.

2 MS. HAGGERTY: I'm Pat Haggerty, with the DOT OIG.
3 I did have some thoughts during this. Number one, there are
4 kind of two issues here that we're dealing with. One is the
5 development of regulations for casks for safety, and then
6 the other is public confidence.

7 Now, I do believe that you can use testing to
8 accomplish both of those, but my question to the citizens'
9 advocacy, what is it going to take for the public confidence
10 to be met. Are they willing to hire an independent testing
11 agency or something to verify what the NRC is coming up
12 with?

13 MR. CAMERON: Well, I'm looking at you, John. I
14 don't know. We'll let you go again. Could you tell us your
15 name, please?

16 MR. HECHANOVA: Tony Hechanova, I'm with the
17 University of Nevada-Las Vegas, research scientist. I'm
18 really here as a public interest.

19 I guess I kind of want to answer the question that
20 was just asked. I deal a lot with actually teaching
21 community classes, doing a lot of outreach, and I think the
22 main thing actually is transparency. I answer a lot of
23 questions. We do transportation studies. None are for the
24 NRC, DOE or DOT.

25 We've done it for the Town of Pahrump. They've

1 given us the scenarios they were interested in. And their
2 scenarios are very different from your scenarios, but that's
3 to be expected, and we explain our method of solution. It's
4 very transparent.

5 They set up the scenarios, so this really was
6 their study. They just used the university to help answer
7 those questions. That's sort of how we see the role of the
8 scientist here and the local community.

9 I think the other aspect that is clearly missing
10 here, though, is also responsiveness. So I think
11 transparency and responsiveness. I don't think having -- I
12 think there are about five of us who really were kind of
13 from outside of the group, was really bringing in a lot of
14 the public comments.

15 I can tell you a long list of other concerns that
16 I hear from community people, as well. Even looking at
17 things as terrorist actions and things that are not
18 necessarily accident scenarios, but, say, advertent human
19 intrusions and things like that.

20 So there are all kinds of things that are always
21 brought up and I think the main thing is, one, you need the
22 people here to voice those, give those concerns, and then
23 the NRC, if they're really serious, needs to be responsive
24 to those concerns, even though it may not necessarily affect
25 the regulatory criteria.

1 But I think one of the things earlier said was one
2 of the more important things, is probably right up front,
3 you needed to tell us what the regulatory criteria is and
4 what its basis are, and if you can go to the extra
5 regulatory things, I have a feeling the public a lot of
6 times is interested in some of those extremes.

7 MR. CAMERON: Okay. Thanks, Tony. I guess in
8 fairness to the NRC, and this may be a transparency problem,
9 that this was a second stage of a public process that began
10 last year, where we did invite the broad spectrum of
11 interests that are affected by this for a real focused
12 roundtable, and issues such as you brought up were examined,
13 were brought up and examined in the Sandia report.

14 Not inadvertent intrusion, I know that's on
15 something else, but some of the transportation issues. But
16 I think you have a good point. Even though we did a
17 roundtable as a continuation, we probably could have --
18 maybe we could have laid out what the starting point for the
19 regulations were.

20 MS. SHANKMAN: Several of you have brought up the
21 concept of how to reach -- more outreach with public
22 concerned groups and citizens, and we did have our meetings
23 in November in the Henderson -- what was it -- the Henderson
24 Convention Center and for this meeting, we sent 364 letters
25 to anybody who signed up at those meetings.

1 So when you say are we serious, I think we're very
2 serious, and if you have any ideas how we can reach more
3 people, we'll be happy to do that.

4 I know you and the lady who had to leave are on
5 our mailing list and received all the material for this, and
6 I guess I wish you had called and said don't have it here,
7 have it someplace else, in time for us to change it, but I
8 don't -- I would just suggest that if we're having it in a
9 place, that you think there is a better place to have it,
10 with advanced information, we could try to do that.

11 MR. CAMERON: Tony, another comment? Sure, go
12 ahead.

13 MR. HECHANOVA: I also agree that we do have a
14 number of ways, the university has several hundreds on our
15 mailing list, as well, people interested in some of the
16 nuclear issues dealing with the test site, as well as Yucca
17 Mountain and other issues.

18 I think the local DOE operations office has a
19 couple thousand on their mailing list. So it shows people
20 have shown interest in the past. One thing I was thinking,
21 it might be good maybe to even try and get some of the
22 groups, the local groups here involved and maybe getting
23 some ownership for doing some of the outreach, maybe have
24 John and his group, Willy, myself.

25 We know certain people who are very interested in

1 these types of issues. With a little bit of lead time and
2 maybe even a little bit of ownership, why don't you guys
3 have some group meetings and then bring everybody to this
4 meeting type thing. There might be some ideas.

5 MR. CAMERON: That's a good idea, and I know that
6 Western States Legal Foundation has helped us in the Bay
7 Area to do exactly that, where we actually planned the
8 meeting with Western States and also Tri-Valley Cares and
9 some of the other groups and they helped us to make sure
10 that people knew about the meeting.

11 We just need to make sure that we follow all these
12 good models and everything that we do.

13 John?

14 MR. HADDER: I just wanted to also respond to the
15 question that you had asked regarding what does it take for
16 public confidence. I think Tony addressed it in a very
17 general way, transparency, but I guess I just want to be a
18 little more specific, from our point of view at Citizen
19 Alert.

20 And that's when I mentioned in the roundtable
21 circle, I used the analogy of the triangle, and that to me
22 is really what will define it, because the regulatory
23 standards that are out there are kind of -- are not -- are
24 esoteric to the public. You have these various tests.
25 Well, how does that connect to what can really happen?

1 Is there a way to demonstrate that connection
2 between the regulatory tests and actual accident scenarios?
3 For example, if there is a drop of a cask in a ravine
4 somewhere, it hits rocks or whatever the situation, how do
5 the forces developed in that, how are they connected to the
6 regulations.

7 It doesn't necessarily mean they have to be the
8 same, but what is the connection there. So that's one
9 understanding.

10 And a lot of what's also based on the process is
11 the modeling system. Again, this is this transparency. Can
12 you also show that your models are predictive in both
13 scenarios, when you do your modeling and you have a
14 prediction on what are the forces developed, what are the
15 stresses, is that what you also measure in the experiment,
16 is that also what you see in real life.

17 So I see it as three things that need to be
18 connected. There needs to be communication between all
19 three of those things to understand the basis for the whole
20 picture.

21 Once that is developed, I think then the public
22 can understand what the heck the NRC -- what we're talking
23 about and there is an avenue there for developing confidence
24 or at least creating the best regulations possible, which is
25 ultimately what we should be after.

1 MR. CAMERON: Okay. Thank you, John. Thank you,
2 Tony. Does anybody have anything else to go into before we
3 close up? We don't need to close up. I was just getting to
4 feeling that we were near that. Go ahead.

5 MR. FRAGOSA: My name is Willy. I just wanted to
6 thank people, also, though. I don't want to forget that
7 part of it, that really you are working for the public good.
8 We in the public don't often get a chance to say thank you.
9 So I'm going to say it now. Thank you.

10 MR. CAMERON: Very nice. Thank you, Willy.
11 Anybody else for comments? Well, thank you all for coming
12 out and thank you for all the advice and suggestions that
13 you have given us tonight.

14 We're adjourned.

15 [Whereupon, at 8:30 p.m., the meeting was
16 concluded.]

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