BOARD MEMBERS PRESENT

Dr. Mark Abkowitz, Chairman of the Panel Meeting
Dr. Daniel B. Bullen
Dr. Thure Cerling
Dr. Norman Christensen, Chairman, Panel on Waste Mgmt. System
Dr. David Duquette
Dr. Ronald Latanision
Dr. Priscilla P. Nelson
Dr. Richard R. Parizek

SENIOR PROFESSIONAL STAFF

Dr. Carl Di Bella
Dr. Daniel Fehringer
Dr. Daniel Metlay
Dr. Leon Reiter
Dr. David Diodato
Dr. John Pye

CONSULTANTS

Robert Luna

NWTRB STAFF

Dr. William Barnard, Executive Director
Joyce Dory, Director of Administration
Karyn Severson, Director, External Affairs
Linda Coultry, Management Assistant
Alvina Hayes, Office Assistant
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ABKOWITZ: Good morning and welcome to our meeting. My name is Mark Abkowitz and I will be the Chair of today's meeting. Today, the Board's Panel on Waste Management Systems is meeting to review strategic planning considerations for developing the transportation system for potential repository at Yucca Mountain.

Let me begin today by introducing the Board Members who are present. As usual, let me remind you that all of us serve the Board on a part time basis and we all have full time jobs elsewhere. In my case, I am a Professor of Civil Engineering at Vanderbilt University in Nashville, Tennessee, and also serve as Director of the Vanderbilt Center for Environmental Management Studies. My expertise is in the area of transportation, risk management, and risk assessment.

Dan Bullen has taken a leave of absence from his position as Associate Professor of Mechanical Engineering at Iowa State University. He's now working with Exponent Incorporated, an engineering and scientific consulting firm. Dan's areas of expertise include nuclear engineering, performance assessment, modeling, and material science. Dan chairs the Board's Panel on Repository System and Integration.
Thure Cerling is Distinguished Professor of Geology and Geophysics and Distinguished Professor of Biology at the University of Utah in Salt Lake City. He is a geochemist with particular expertise in applying geochemistry to a wide range of geological, climatological, and anthropological studies.

Norm Christensen is Professor of Ecology and former Dean of the Nicholas School of the Environment at Duke University. His areas of expertise include biology, ecology, and ecosystem management. Norm chairs the Board's Panel on Waste Management Systems.

David Duquette is Department Head and Professor of Material Engineering at Rensselaer Polytechnic Institute in Troy, New York. That's also where summer is one day in July, having lived there myself for several years. His expertise is in physical, chemical, and mechanical properties of metals and alloys, with special emphasis on environmental interactions. David is the Chair of the Board's Executive Committee.

Ron Latanision recently retired from his position as Professor at MIT to pursue a senior position with Exponent. Ron retains a position as Emeritus Professor at MIT. His areas of expertise include materials processing and corrosion of metals and other materials in different aqueous environments. He chairs the Board's Panel on the Engineered
System and perhaps, more importantly, has been designated by the Board as its Social Chairman. We're doing a performance monitoring of that function this week, by the way.

Priscilla is Senior Advisor to the Directorate for Engineering at the National Science Foundation. Her areas of expertise include rock engineering and underground construction.

And, Richard Parizek is Professor of Geology and Geoenvironmental Engineering at Penn State University and he's also President of Richard Parizek and Associates, Consulting Hydrogeologists and Environmental Geologists. His areas of expertise include hydrogeology and environmental geology.

Also with us today is Bob Luna who has helped the Board follow developments in transportation for the last several years.

Turning to today's agenda, it consists primarily of presentations by invited speakers with just a short period of time designated for questions and discussion after each presentation. At the end of the day, we have scheduled a period for comments by members of the audience. If you would like to comment at that time, please, enter your name on the signup sheet at the table near the entrance to this room. Alternatively, you may submit written comments at any time during the day and we will try to present them to the
speakers or otherwise work them in as time permits. Please, give any written comments to our support staff at the sign-in table to the back left of the room and they will collect the comments and give them to us at the front table.

I might point out that because today's schedule is so ambitious, on the formal agenda, we have scheduled just one comment period which is at the end of the day. However, if your schedule requires you to be somewhere else at that point in time, please, notify the folks in the back and we'll make every effort we can to create another opportunity to speak right before lunch if, at all, possible.

Speaking of the support staff, those of you who have been to previous Board meetings will recognize Linda Coultry who is at the sign-in table. She's usually the one that has a Starbucks in her hand. The other staff member at the table is a new employee who has recently joined the Board staff. I'd like to introduce Alvina Hayes who we are very glad to have as a staff member and who will likely be seen more frequently at future Board meetings.

I'd also like to ask all of you to turn your cell phones either off or to vibrate so as not to disrupt the presentations and discussion. In other meetings that I've been at when this question comes up, there's an unwritten law that if your phone goes off during the session, you have to buy everyone in the room a drink afterwards. So, that's a
1 pretty expensive proposition today, it looks like.
2 As I mentioned a short time ago, today's meeting
3 will review strategic planning considerations for developing
4 a transportation system for a potential Yucca Mountain
5 repository. This morning, we will hear from representatives
6 of those industries and organizations likely to be involved
7 in operating the transportation system; specifically,
8 utilities, cask vendors, truck and rail operators, and the
9 operator of the surface facilities at a Yucca Mountain
10 repository.
11 This afternoon, we will hear from representatives
12 of the state and local governments who also would have
13 important roles to play if a transportation system is to
14 operate including issues such as route selection, emergency
15 planning, permitting, and inspections.
16 The third major segment of today's agenda will
17 consist of four lessons learned presentations by speakers who
18 have previously been involved in transportation of spent fuel
19 or similar materials.
20 The final presentation today will be by the
21 Department of Energy and has the tentative title Status of
22 DOE Transportation Planning. We hope this talk will cover
23 not only the DOE's planning, but also provide an opportunity
24 for the DOE to respond to other information that's presented
25 during today's meeting.
I'd now like to briefly go over some Power Point slides to elaborate on the Board's goals for the meeting today.

Just to kind of cast the landscape for the discussion that we're embarking on today, I think it's important to recognize that the transportation activity is expected to be a very complex operation. And, it also is complex not only in the scale of the network that we're talking about. This happens to be just kind of an illustrative map of the locations of many of the shipping origins and, of course, the proposed shipping destination here at Yucca Mountain. And, you see here some of the routes that are being considered for movement of those waste shipments. I'm not sure, I believe this may be--it looks like possibly the rail network, but there's obviously highway, rail, barge, and inter-modal issues that really compound the question of safety and security and logistics.

At the more sort of microscopic level, if you will, we also have issues that, in addition to being a corridor state, are unique to the State of Nevada because it's the destination state and then, as you get down closer to the proposed repository site, you're involving individual counties and other locales. As you are also probably aware, there's been recent indication from DOE that it has honed in on two different rail car options coming in, one here from...
the north and the other coming in along here, known as the Caliente and Carlin corridors. So, there are issues not only in terms of managing within the existing infrastructure, but also what kinds of improvements to the existing infrastructure and new infrastructure may be required. And, this involves in the entire transportation gambit a number of different organizations and individuals with different interests and different geographical locations and so forth and so on.

If I could have the next slide, please? Overlaid on the consideration of the scale of the project and all the players that are involved, there are all the issues that intersect with these players in different ways. This is not meant to be an exhaustive list of transportation issues, but just to give you a sense of what's on the table and what's likely to be discussed as the transportation planning effort moves forward. This is not in any kind of rank order and, like I said before, it's not exhaustive. But, we've heard a lot about mode and route types of questions. We heard a little bit yesterday about waste acceptance in terms of what's happening at the origin, what products are moving first, and what types of packaging they're going to require. There are issues in the operations about permitting and inspection and carrier selection and maintenance, tracking and notification, security issues. In the unlikely event of
an incident, we have emergency response situation and then we have a variety of other issues, such as contingency planning, be it weather or accident, security, safe parking, what have you. So, we're hoping to use today as an opportunity to start to better understand all the interrelationships in both the technical and perceived considerations that will be driving the whole issue of moving these products safely and securely.

If I can have the next slide, please? The only way that we as a Board have been able to get comfortable with the transportation subject—and we're certainly encouraging the DOE to think about it this way, as well—is to address the transportation activity as a holistic, systematic process. So, as a result, our lens has focused not only on the in-transit portion of the trip, but also what happens at the loading end and what happens at the unloading end. And then, furthermore, what happens when you go from the surface facility to the emplacement of the wastes inside Yucca Mountain itself. So, from looking at this from a holistic, systematic process, one can kind of think about analyzing and evaluating the situation as a set of sequential activities. And, the reason the agenda is structured the way it is today is to be able to hear from individuals that have roles and responsibilities or oversight activities that are associated with different components of what we consider to be the
transportation function.

Next slide, please? So, to try to sum up the objectives for today, we want to hear directly from those who have the operational and oversight responsibilities. This is an important day today to gauge exactly where you think your issues are with regard to safe and secure transportation of spent nuclear fuel and high-level waste and to be able to help the Board understand what you need in the way of information or resources in order to move forward to be in a position where you're comfortable that you can fulfill your responsibilities as part of a stakeholder in the transportation activity.

Next slide, please? The last two slides of this presentation are just kind of a summary of the, I guess for lack of a better word, the guidance or instructions that we gave to panel participants in discussing with them their willingness to be part of the program today. And, you'll notice from this series of questions that it's really kind of a fact-finding mission with the idea of being able to collect our arms around all the issues that need to be profiled to get an understanding of the sequencing of events that need to take place and to start to sort of lay out sort of a strategic view of how transportation planning needs to evolve in order to satisfy the safety and security requirements. So, in the early sessions today where we're hearing from
individuals that would have direct operational
responsibilities, the framing questions are what are your key
Yucca Mountain transportation, safety, or security concerns?
How have you been able to address these concerns based on
the information and resources provided by DOE to this point
in time? What concerns have you been unable to address and
what does DOE need to provide to allow that to happen? And
then, once you are enabled in that capacity, how long will it
take you to address these concerns? And, in framing the
questions this way, we're hoping to sort of elicit an open
response from these participants, but focused on the question
of exactly how they're going to get from today to being able
to support a successful transportation operation.

Last slide, please? And then, this afternoon with
the program switching to the state and local participants--
well, actually, I take that back. The state and locals will
still be focusing on the previous questions. When we get to
the lessons learned portion of the program, our guidance for
those speakers were to try to take the experiences that
they've had in other campaigns and to kind of share the
background and some of the issues that they had to deal with
both in terms of problems faced and ways to overcome those
problems. But, most importantly, to converge their thinking
on those activities to be able to kind of distill for the
Board the experiences and lessons learned that may actually
be transferrable to the Yucca Mountain transportation
scenario.

So, that's our goal for today. It's a very
ambitious day. We want to hear from a lot of people, and yet
at the same time, we want to make sure that everyone has
their opportunity to speak and still maintain a schedule.

So, one of my jobs today will be to act as the bad cop and, I
guess, I need to start with myself since I'm about to run
over here.

Our first speaker today in the section on
preparation of waste shipments is Steve Kraft. That's a
change from the program where John Vincent is identified at
the moment. Steve was so excited about talking yesterday
that he asked for a repeat performance. Actually, John has
had some other issues come up and was unable to attend today.

But, most of you know Steve quite well. He's with the
Nuclear Energy Institute in Washington, D.C. NEI is a policy
organization of the nuclear energy industry and membership in
NEI includes firm that operate in all phases of the nuclear
fuel cycle. We have invited Steve to give an overview of the
nuclear industry views on transportation planning.

Steve?

KRAFT: Well, thank you, Dr. Abkowitz. Good morning,
everybody. John sends his regrets, as Dr. Abkowitz said. A
personal matter came up and he is unable to be with us which
is truly unfortunate because he is one of the very, very few
people in this country that has actually moved commercial
spent fuel. When I talked yesterday about the experiences of
returning the fuel from West Valley to Oyster Creek, that was
John's project. It was John who walked the route. He spoke
to that school system I talked about. That story I told you
was something he has related to me. So, he will continue to
remain involved and we'll be seeing him in the future, I'm
sure.

What I was really doing here is responding to
Bullen's request. He had more questions for me and I warned
him this morning that you ask them and you get your answers
at your own peril. So, we'll see how that goes.

I'd like to have the first slide, please? I talked
a great deal yesterday about how we saw at the national level
the responsibilities that both sides to the movement of fuel
have in the terms of the contract and I referred to that
contract a lot. I'll refer to it again. This is it. 10 CFR
Part 961 is the generic form of the contract. Individual
utilities signed their own. If you're ever interested in a
truly stirring read, I would suggest that--although, it might
fit in with what I understand now to be the TRB's situation.
I mean, you come to Las Vegas on a regular basis and you sit
in dark rooms with the lights down talking about nuclear
waste. You need a new morale officer. I've got news for
Okay. So, DOE is obligated to take all the used nuclear fuel and the word "all" is important. We talked a lot yesterday about how they might phase that in. What types of fuel move first, second, third, oldest fuel first. Standard fuel and nonstandard fuel is defined in the contract. Failed fuel, is the cladding intact, not intact, all those kinds of questions. One of the important things here is that the DOE is responsible for the full transportation system. I'm sure Gary will talk about that later today.

Title transfer, that's an interesting question about title transfer. Title transfers, according to the contract, at when the used fuel crosses the plant gate. So, as soon as it leaves our utilities, Part 50 licensed facility, it's DOE's fuel. But, the law says something a little different. The law says in 302 A and B that they have to take the fuel January 31st, 1998, which they didn't do and that's what the law suits are about, but title doesn't transfer until the repository is operating. And, I think that's one of these little legal conundrums that have to get worked out. Title transfer is important because it drives liability insurance more than anything else. You could possess something and you could have control over it, but if you don't own title to it, it kind of clouds up the insurance
situation. And, the standard form for the Price Anderson liability insurance the utilities have to have to hold their Part 50 licenses also includes shipments to and from the plant, in addition to the insurance that the carriers have to have. So, that becomes a complicated point.

DOE is the shipper of record. DOE is the organization in the jargon of transportation that presents the package of transportation and there are lots of responsibilities that fall on that individual. Utilities pay all the costs. That's pretty clear through the Nuclear Waste Fund. We are responsible to provide at reactor storage. Steve Edwards from Progress can talk about what they're doing in that regard, I'm sure. And, DOE must by law provide a utilized private sector to the greatest extent practical. That's something that was written into the law. Every version of the WWPA in the late 1970s and in the beginning of 1980s had that provision in it. So, there must have been some understanding on the part of the Department of Energy at the time and certain transportation interests that DOE would not use its own forces to move this material. So, I just thought I'd point that out that that seems to be a long-standing activity.

Okay. Individual signed, individual contracts, I talked about that a lot yesterday. Annual shipping allocations based upon discharge dates and quantities.
Utilities can select the used fuel. Again, it's a contract.

There's room for discussion, there's room for negotiation to determine what that would be. And, of course, let me just stop and use that as a point to say something that I thought DOE was doing over the years. And, it's a question that I have now. If you think about the system, the point of origin and the point of receipt, and everything that has to happen on those two ends to move the fuel, it's sort of always struck me that transportation is not just the movement of the material from A to B, but is also the mechanism by which you can force integration of the system. You cannot have a cask that leaves one of our sites that is incompatible with the receipt with the transporter, with the receiving facility, and it cannot be inconsistent with what they do at the receiving facility. And, if you back up a little bit into the beginning, it can't be inconsistent with what you do before you load the cask. So, transportation can serve that function. I've not seen a lot of evidence lately that DOE is using it that way, that DOE is thinking that transportation does that. Maybe, I'm missing something. It just may not be clear to me that that's what's happening. It was very clear about 10 years ago when they were promoting the idea of the regional service contractor because the contractor had those responsibilities.

Next slide, please? DOE has a lot of
responsibilities here, as do the utilities or the purchasers as they're called in the contract. The waste acceptance is pretty obvious. Waste acceptance is not simply receiving the fuel. I know we use the term a lot. Dr. Abkowitz had it as the very first issue on his non-ordered slide there and I disagree that is the most important, but that's just me, maybe. Waste acceptance is a myriad of things that has to be done in terms of not--it's scheduling, it's planning, it's providing the right kinds of casks, it's making sure that you're doing the verification inspections correctly. It's how you allocate. It's a whole series of activities that is caught up in the rubric of waste acceptance.

Take title transport, as I've discussed. They have to move a certified NRC cask. That is a provision of the law. Now, just so there's no confusion here, let me explain how this works legally, as far as I can understand it. Because DOE is a Federal agency, they are not obligated to be licensed by the NRC for anything unless Congress so says because when they split up the two agencies in actually 1974 when DOE wasn't created until '77, but ERDA (phonetic) was created, is that the way Congress wrote that law is that DOE or then ERDA would simply follow the same provisions of the Atomic Energy Act that led to the licensing and safety of commercial facilities, but they would simply impose it on themselves and that's where this environmental safety and
health program comes in DOE. So, Congress has to specify whether NRC licenses anything that DOE does. And, of course, it says so very clearly about the repository. It gives EPA a role, NRC a role. But, in transportation, it only says two things; certified casks and notification of the governor before you ship according to NRC rules. It says nothing else. And, that's an important factor because it's not really clear to us and I'm sure it's not clear to many of the stakeholders what set of rules DOE is going to use for what phase of the program. There was a large transportation meeting that DOE held mid-last year, a group they call the Transportation External working group or something like that and there was a lot of discussion about asking about that factor and asking DOE to, at least, from our part, to simply publish a matrix that says here's all the things we have to do and here's the rules we're going to follow. In this case, it will be NRC; in this case, it will be DOE; this case will follow, you know, this procedure, that procedure; we use these rules; we use whatever they are so people have an understanding as to what they are. And then, there was a lot of discussion about how you would have enforcement in that area which was not clear other than in the NRC areas. And, what's really interesting about this is that when you think about security and safeguards, NRC has a fully developed system of security and safeguards for nuclear
facilities and shipments. They do not by law apply to DOE. DOE may very well just use its own program or some combination of the programs. That needs to be defined. That came out in the Senate hearing on the Yucca Mountain resolution in June of 2002. NRC was requested by one of the members of the Senate on that question and they wrote a letter that said, no, all we regulate are the two things I said and it was surprising to some people. I think people had forgotten what--it had been so long, people had forgotten what the law said.

DOE has to select shipping routes and coordinate with states and tribes. There's a lot of coordination. You had that map that was up there at the very beginning that sort of tells you how complicated that's going to be. They have to provide security. As I said, to what regulations, we're not sure. And, emergency response training and assistance and funding through the states and tribes pursuant to Section 180(C) of the Act. Again, 180(C) says you have to provide funding and training. It doesn't say whose regulations or whose procedures you have to use.

If I can have the next slide, please? It's a lot of responsibilities on the purchaser side. Provide notice for DOE for location of the used fuel and required mode of transportation and waste. Mode is a big issue. You all may remember from the debates on the Yucca Mountain resolution
1 how much interest there was around the Great Lake regions as
2 to whether there was going to be barging or not. I take no
3 position on barging mainly because I think it's as safe as
4 rail and safe as truck and anything else. So, you know,
5 really, to me, it's an efficiency question, but there's a lot
6 of people who feel very strongly about that. I pointed out
7 yesterday and I'll say it again. When the utilities notify
8 DOE and say here's the material that we want you to move off
9 the site by when, there's a little box you check off that
10 says whether you want it moved by truck, rail, or barge.
11 Right now, the utilities have the right to say how they want
12 that moved. Some utilities do not have heavy loading
13 facilities available other than barging, particularly those
14 plants, you know, that don't have a rail spur coming in may
15 have barging, whatever.
16 Again, the utilities and DOE need to be talking
17 about these subjects. And, of course, utilities can swap
18 allocations and I went back to look. I said five years
19 yesterday. I went back to look at the contract. I think
20 it's a year notice on that. Now that really will confuse the
21 system in terms of what DOE is designing for especially in
22 the early years. Again, they have to start talking and
23 working these things out. Avoid scheduled outages when they
24 do the shipping and DOE has--and they have to select the fuel
25 to be loaded and shipped. Those are the things that the
If I could have the next slide? These other considerations, when we were putting this discussion together last week, John and I had a very long talk about how we were going to lay this out in terms of getting the points across and we decided that the DOE and purchaser responsibilities were the hard things that were in the contract that we understood them to be, but these are other things that we think ought to be looked at and perhaps done. We think DOE should agree to comply with all the other applicable NRC and DOT transport regulations. I think that just makes sense because those are regulations that--remember, this is something that the commercial sector is going to carry out. By law, the utilities have to interface with it and a lot of stakeholders along the transport route. I think the NRC and the DOT transportation regulations are probably the things that the folks I just mentioned are most familiar with and can use the best. They are an integrated set of rules and regulations that provide for the utmost safety of these shipments. The legal question that comes to mind is enforcement. If you're going to follow someone's rule, but you're not regulated by that entity, I don't know how enforcement occurs, and that's something that has to be thought about.

Used fuel transportation benefit greatly from
advanced coordination and planning. Well, that's sort of a
motherhood statement, but it's a lot harder to do than you
might think and I was asked yesterday a little bit about
utilities working with the localities on that. Now, let me
give a firmer answer because I went back and I've thought
about it overnight when Dr. Abkowitz asked me about that.
Back about 10 years ago when DOE was working on this thing
called the regional contract servicing contractor and we
commented formally on all those versions of that draft RFP,
we did tell DOE time and again when you work with the
utilities don't just look at the physical part of the plan.
Take advantage of what the utilities have already built in
into their locality in terms of their relationships with the
community. Don't just roll in there and sort of take over
the job, so to speak. And, I think that's the way DOE will
do it, although in that strategy that they published, that
kind of detail wasn't in there. So, we were a little more
firm as to how that should be done.

And, that the utility site review for compatibility
with technical licensing requirements of the reactor plant
site, that's extremely important. That what the DOE shows up
with in terms of a cask, in terms of training, in terms of
procedures has to be compatible with what goes on at that
facility and it's not cookie cutter. Not every facility is
the same as every other facility. There are unique
circumstances. Everyone follows the same regulations, but how they do it might be different. So, the DOE has to do a tremendous amount of work individually. Some of the earlier plans that DOE had published a number of years ago seemed to indicate that there were going to be these interactions with individual utilities to get that stuff sorted out.

Next one, please? Needs to assure transportation program will support 2010 operations. They announced the decision for Nevada and those are going to be rail corridors. So, they need to confirm their preference for mostly rail out of the EIS and we understand they announced they're working on the record of decision. One would imagine that that's what they're going to do. That's what they're going to say because of what they did in Nevada. They need to get on with system procurement. On that, maybe Gary will lay some of that--I don't know, maybe Gary will say something about that later.

We think that there's a need to use dedicated trains. Now, before Bob Fronczak jumps up and shoots me for saying that, the issue of dedicated trains for us goes like this. It's that our experience is when shipping these materials that you have a far greater chance of controlling the situation, providing emergency response, etcetera, if you have a train that's moving only this material. And, Bob is the rail expert. He can talk about what that does in terms
of complicating the rail system or not which I think is important to keep in mind. And, I know that that's not always universally accepted by people who do this in government, but we firmly believe our experience is the dedicated trains is the way to go. And, I think that we're hoping DOE will agree with that. They haven't said one way or the other.

The private fuel storage facility which is scheduled to be constructed in Toole County in Utah if it ever gets through NRC licensing--and that proceeding is going far longer than anyone expected--has done a tremendous amount of work in terms of rail planning and shipping. They're going to build a rail spur about 25 miles from the main line down to the site. They developed their own rail car in coordination with the Association of American Railroads, etcetera. And, the DOE should take advantage of all of that. DOE should take advantage of any number of aspects of that including transportation development, transportation planning. They also should pay serious attention to that licensing proceeding for the repository itself. That's not exactly on point for this discussion, but that's an important learning experience for everyone involved. And then, they also have their own shipping campaigns that we know that they're looking at and that's the WIPP and the Foreign Research Fuel.
If I could have the next slide, please? The strategic plan that came out issued in November, it was really an institutional plan for stakeholder interactions of which the utilities are one. Utilizing regional groups, we think, is a positive step. Get along with the states and tribes is a very positive step in terms of organizing how you're going to approach the problem so you're not in a some sort of free for all. I mean, there needs to be some hierarchal approach to this problem. We'd like a lot more detail. I think everybody would. The detail we need in answering the questions at the top of the meeting here not one by one, but just to say what we need to know is when, how, procedures, what training we have to provide our people, things along those lines. We're ready to go otherwise. I mean, we're comfortable and confident that this can be done right. We realize there are others that are not that DOE needs to do a lot of work with. But, our needs are more on the procedural and technical side, all the things I've been talking about. Talking to the utilities about how they'll interface, making sure they're not doing anything that cuts across the facility license, stuff like that. We can update plant information whenever we're asked. I mentioned yesterday those two updates that they're going to be doing on the facility capability assessment and the near-site transportation infrastructure.
Can I have the next slide, please? We think that
the naming of Caliente was a good thing. It was a good thing
from a lot of perspectives. It was a good thing from our
perspective because you're getting this program moving
forward. It's a good thing from DOE's perspective. You
know, it's pretty obvious there are people in Nevada who
don't think it's a good thing, but we think it's--that's our
statement. We think it's good news.

It's very encouraging because they need to get on
with allowing rail construction after license issuance. I
found that was really very interesting, that discussion
yesterday, about what really amounted to how much
preconstruction can they do? It was better than some of the
comments. This year's appropriation bill has a paragraph in
the House Report that tells DOE they need to do
preconstruction planing and preconstruction to get on with
it. It's in the House Report. It was not discussed in the
Senate Report and it was not countermanded in the Conference
Report. That means that report language stands. DOE needs
to figure out how they're going to respond to it. DOE is
responding to other language in that report. The whole
transportation decision is based on language in that report
that survived the--it didn't survive in the statute, but it
survived in the report language and DOE is moving forward.
So, I don't see where that would not be a problem and they
1 need to explore that and they need to work with NRC as to how
2 they're going to do that. So, that is encouraging.
3 We think they need to publish the ROD as quickly as
4 possible which they said they would. Hopefully, they'll get
5 that out fairly soon. And, that they need to get on with the
6 EIS for the rail alignment for the Caliente route, the
7 specific rail alignment. They have to have their scoping
8 hearings. That's a multi-year process.
9 And, Caliente corridor is consistent with our
10 transport policy which I believe we provided at the last
11 meeting where we talked transportation. If you don't have
12 it, we can provide that to the Board. But, it's consistent
13 because it stays away from downtown Las Vegas and it's a rail
14 system. Those are the two things that make it consistent
15 with our views.
16 If I could have the last slide, please? So, we
17 need to have a transportation system that will support waste
18 acceptance by 2010. We think the plan and the corridor
19 announcement are good things. DOE can benefit from the
20 private fuel experience; not just PFS, but all the private
21 experience we've had over the last 30 or 40 years. They need
22 to get involved. It's extensive planning and coordination.
23 Use of comprehensive and uniform regulations and then, we
24 believe, that transport will be safe and secure if all those
25 things are done.
Well, thanks very much. That's what we came to say.

ABKOWITZ: Thank you, Steve. Board members with questions? Dan?

BULLEN: Bullen, Board. Steve, I want to thank you personally for coming back since I obviously had questions that weren't answered yesterday or I didn't ask them and to take the microphone again and to field them.

I actually had one that is a followup from yesterday that you touched on today and that deals with the fact that the utility site review is going to be updated, basically, the infrastructure report that's necessary to get to and from the working facilities that need to ship waste. The question that I have, since title to the fuel is transferred at the gate which is what we talked about today, who is responsible for the infrastructure upgrade to the gate and then obviously the utility would be responsible inside the gate. Is it going to be DOE's responsibility to take a look at the bridges and the infrastructure for the shorter long spurs to individual sites?

KRAFT: Well, I guess, the general answer to that question is yes, but if you're going to contract with the railroad and they tell you they can get to a site and move a load 125 ton, then--I mean, maybe it's a better question for Bob--then the railroad needs to go make sure that a bridge is
going to be okay. And, if it's not okay, to go back to the shipper and say we can't do that until we fix the bridge and here's what's that's going to--I mean, Bob, you may want to comment on that, but I would imagine that there's a service provider in between there somewhere that needs to get involved in that.

BULLEN: Bullen, Board. But, maybe the important point I wanted to ask was who pays?

KRAFT: Oh, it's out of the Waste Fund.

BULLEN: Okay. So, DOE would be responsible for the--

KRAFT: Oh, yeah. I don't--I mean, I said that rather--I don't see how that's not. I mean, but I guess that goes to the contract that someone is going to have with whoever is driving that train as to how that's going to work.

BULLEN: Okay.

KRAFT: But, having said that, the Nuclear Waste Fund is not going to be responsible for upgrading every bridge and every overpass in the country. There are certain infrastructure responsibilities that the general government has as its responsibility. But, if you asked immediately outside the plant--because what I thought you were getting at, Dan, was immediately outside the plant--there could be what was once a dedicated rail spur that came down from the main line to the plant for the purposes of hauling in the heavy gear, the steam generators, the switch gear, whatever,
for that plant, that had since been abandoned and may have
decayed. That spur may be something that needs to be worked
on, but I would guess in the rail network itself—I mean, the
railroads are responsible for maintaining their networks.

BULLEN: Bullen. I understand that. The second
question I have basically deals with something that you also
said yesterday and that is you mentioned the utilities and
DOE really should be talking and I couldn't agree more. The
problem is that elephant in the room of the pending
litigation. Is there a mechanism that you see whereby they
could actually undertake these discussions and not be
influenced by that litigation or—

KRAFT: Well, yes, there is a mechanism that we've
thought of no one has seen fit to bite though and that's to
use a third party. NEI is not suing DOE over anything. You
know, we're kind of a neutral third party that holds the
interests of the industry. It's entirely possible that there
is a group of individuals, a set of consultants, you know, an
organization—I used NEI as an example, an organization—who
could do that and kind of insulate that. We've mentioned it
to DOE. There's been—you know, I think that's a very
complicated legal question for them. John Arthur mentioned
yesterday that he had a team of people come in and look at
their designs. You know, maybe that's a way that can be
done.
The real question comes down to--I mean, I don't mean to take up all our time on it, but I want to make sure we understand the question. Okay? John Arthur said yesterday that--he talked about phasing the facilities. And, Paul Harrington showed Phase 1 and Phase 2. If you looked at what he had in Phase 1, I think it's pretty clear that's a very ambitious construction program to have that first dry fuel transfer building built during Phase 1. And, I took from what John said that maybe there will be a Phase 1A. Maybe there will be kind of an early thing kind of constructed. Maybe it will be the cask. Let's just assume it's the cask handling facility. Let's just make that assumption. Well, that suggests that utilities have to be willing to do certain kinds of packaging on their sites. Okay? I know from talking to the utility people no one at DOE has asked whether or not you are willing for the sake of moving fuel in 2010 or beginning of 2010, I should say, that you'd be willing to handle these kinds of casks of these dimensions with this amount of fuel in it to move. That's not occurred. And, that's the kind of discussion that I'm talking about. And, you know, John Arthur is doing a great job and I think he's trying his hardest to discern what that is, but these lawsuits do--I'm sorry, they just do simply get in the way. And, I will have to stop talking about it because I will be executed by our General Council if I go any
1 further with it.
2 BULLEN: Thank you, Steve.
3 ABKOWITZ: Priscilla?
4 NELSON: Nelson, Board. I'm trying to get back to the
5 questions about key concerns that you would have as a
6 stakeholder involved in this overall process. What becomes
7 fairly clear is that this is 2004 and between 2004 and 2010
8 there's an awful lot apparently to be accomplished. Are you
9 tracking this process enough to know, for example, what you
10 don't know what your key concerns are early, a choke point in
11 the schedule, more or less, and by which time if something is
12 not kicked, the schedule is really in question?
13 KRAFT: Immediately following the approval by Congress
14 of the Yucca Mountain site, we prepared our own--you know, if
15 we were DOE, what would we do in transportation and it was
16 just, you know, a page or two of words, but the key point was
17 a Gant chart of steps that we would go through. And, we
18 offered that to DOE and said here's some ideas what you need
19 to do next. And, we have then revised that once. It's all
20 very formal. We revised that once to reflect that they were
21 not moving very quickly. And, then the question that we
22 tried to get at is, okay, what things could you do early
23 versus later given some of the political realities that seem
24 to be applying. From doing that, we've not identified any
25 particular choke point that we thought we were going to hit
between now and 2010 in the sense of if they don't get X done by X date, they're not going to get forward except that it's pretty obvious that they've got to get that rail line built starting at a certain point. It takes, you know, so much--Bob can tell you how much it's going to take to build that railroad. That's the one issue that we see and it's not whether the railroad is built or not, it's whether if you're not going to get the road done in time what you work around. Those things have yet to be identified. Now, I can't exactly tell you that they have to be done by a year certain yet. We haven't done that kind of study. But, in light of where DOE is now that they've issued some of these decisions, we're re-looking at that and we may identify something. But, to date, we really haven't come up with some particular, you know, if these things don't happen by this date, it's too overwhelming to get to 2010. We still think they can get there.

NELSON: Nelson, Board. Well, in followup, I was struck by your bringing up the language that relates to preconstruction or pre-licensing activities. And, it seems as though what you were saying was that there are some things that should be done on that basis that must be done perhaps on that basis.

KRAFT: Thanks for asking the question. Let me clarify. What I thought the preconstruction language was going after
1 was not the building of the specific surface facilities for waste, but there's a lot of preconstruction that has to take place. They've got to get heavier duty power lines in to support construction, not for operations. They have to get a road in to support the heavier equipment that needs to come in. I mean, Paul described clearing the pad and doing certain backfill and I think that there's a bunch of preliminary work that we call preconstruction that has to be done before you start the actual construction of building the plant. And, when I read that language, I thought that's what they were getting at, that Congress had heard somehow from DOE or someone that there was some need for that preliminary construction. The reason I think you can't get to the "actual" construction is the safety grade aspects of some of that. Until you have that construction authorization from NRC, you are on particularly shaky ground building anything that has to be--you know, you may think it's not a Q grade or safety grade, important safety system, and you find that you're wrong in the license. And so, that becomes important. So, I actually thought it meant the preliminary stuff, the heavier duty power lines and those sort of things.

ABKOWITZ: Ron?

LATANISION: Latanision, Board. You'd suggested that DOE should incorporate some benefits from the PFS planning and experience. Could you elaborate a bit on that? What
1 kinds of things do you have?
2 KRAFT: Well, PFS learned a great deal about, for
3 example, very large dynamic loads on trains. PFS spent a lot
4 of time with AAR, but Bob told the story from their side when
5 he speaks, as to what it was that would cause problems in
6 rail transport handling heavy loads and what leads to
7 derailments, you know, brake problems, control problems,
8 dynamic loads in terms of how the car is actually designed,
9 things like that. And so, PFS's contractors working with AAR
10 and through the facility that they have in Colorado where
11 they do a lot of the dynamic testing, they designed a car
12 that they think and AAR believes is going to help remove some
13 of those problems. And, what it was really aimed at is that
14 there was a policy that AAR had on transporting used fuel
15 that required no more than 30 miles an hour and standing
16 passes and--I don't know what the right terminology is--but
17 you had to stop if another train came by or passed you which
18 the way our rail network seems to be operating these days is
19 that we haven't built any main line rail of any consideration
20 for a very long time. And, again, I keep referring to Bob
21 because he's the expert. You know, they have a derailment in
22 Kansas City and trains stop in Florida. So, that's the kind
23 of thing we are hoping to avoid by developing this additional
24 rail car technology. And so, there's braking technology and
25 whatever. So, that's one part of it.
The other part of it is because they're putting in that rail line and had to work very closely with the Federal Rail Administration and local authorities on that, there's a big learning experience that PFS went through they could help DOE with.

ABKOWITZ: Dave Diodato?

DIODATO: Yeah, Diodato, Staff. Thanks for the presentation. I noticed on your Slide 8 that you had a phrase there. You said one of the things that was important was the institutional plan for stakeholder interactions.

Now, what I'm interested in first would be who you view as stakeholders in this process? What's your list of stakeholders?

KRAFT: Well, what I was saying here is that the strategic plan is an institutional plan. That's what it is.

DIODATO: Right.

KRAFT: It's not a strategic plan that tells you all the things you need to know as a strategic plan for moving.

DIODATO: That's not my question. My question is who is your list of stakeholders?

KRAFT: Well, I think in this instance we thought of the stakeholders as the regional groups, the states, the tribes. The industry and utilities are stakeholders to be sure, but we didn't mean that. For purpose of the discussion, we separated the industry from that group because I think the
interactions and information needs that the regional groups, the states, the tribes, localities, the local sheriff's departments need is different than the information needs that we have. That's how we were separating.

DIODATO: Okay. Let me be more specific. Do you view citizens as stakeholders?

KRAFT: Individual citizens?

DIODATO: Yes, individuals?

KRAFT: Absolutely. But, individual citizens seem to rely on their elected and appointed officials in their localities and states to--

DIODATO: Well, actually, we've heard from the public that the citizens don't view themselves as stakeholders, in fact, in this process. It's just for your information. You wouldn't necessarily view all citizens as willing stakeholders as a part of the process. You talked about--

KRAFT: Well, wait, you added another word, "willing" stakeholder. What's that?

DIODATO: Well, as a self-identified stakeholder, let's say.

KRAFT: Oh, okay.

DIODATO: But, you talked about John Vincent's experience and you valued--this was what was really a substantial community outreach effort, it sounded like to me.

KRAFT: Yeah.
DIODATO: So, what I'm wondering is how is that level of effort consistent with the pre-selection of this rail route? I mean, how much community outreach have you seen the Department doing? I mean, is it a consistency or an inconsistency--

KRAFT: No, I think it's consistent. I think DOE had--they identified those rail routes a long, long time ago. They had many interactions, both formal and informal with groups from in and around Nevada, with those counties; Lincoln County, City of Caliente self-identified a long time ago in their interest. In fact, the City of Caliente is said if you're not going to get that rail line built on time, we'd be happy to host an inter-modal facility. Nye County, they just got a grant and I think they're ready to issue a report on their views on rail transportation. During the EIS, I don't know how many hearings they had. I mean, short of going door-to-door and interviewing people, I think they've done about as much as you can expect them to do given the size of the problem here.

DIODATO: So, from your perspective, there's been community buy in of the--

KRAFT: Oh, yeah--no, don't put words in my mouth. I didn't say community buy in. You asked me about interactions.

DIODATO: All right.
KRAFT: And, I described what I thought with the interactions. No, the community buy in is another story and you're going to have some representatives of those communities here this afternoon. Ask them whether they buy in, don't ask me.

DIODATO: Thank you.

KRAFT: But, I will tell you that what John Vincent did in that Oyster Creek, that was not the first time that was done. A very, very long time ago, Duke Power Company was considering transhipment from Oconee Plant to McGuire Plant where they had more storage capability. They never did that shipment. Dry cask storage was not available as technology back then, and when it became available, that's what they did instead. And, the people that did all that planning, they literally drove all the routes and met and they stopped at every firehouse, they stopped at every sheriff's department and talked. You know, what do you need to know? You know, here's our information. So, the utilities have done that. Now, you know, you're talking about a nationwide network. You know, that's another step in the scale and I think that's where I said that given that scope and you're starting with the regional groups or the states and on down, I think is the right way to do that.

DIODATO: Thank you.

ABKOWITZ: Okay. We have time for just two more
LUNA: Steve, on your Slide 3, you talk about how the fuel is going to be shipped and how it's going to be selected. It seems like there's a couple of different interpretations here. One is—and I heard you say yesterday—is the oldest fuel first and then your third point seems to suggest that oldest fuel is not necessarily the case. They can ship anything that they want. And then, I've heard some other statements yesterday that suggested that you would expect to see negotiations between DOE and the utilities on what was actually going to be shipped. Which one of these is correct and/or are they all correct and we're going to select from them when the time comes?

KRAFT: Well, they're all correct, Bob, but let me just work through it again. Oldest fuel first, globally, is the way the shipping allocations are determined in the annual priority ranking which is a document DOE issued a long time ago. That creates in the utility and the purchaser a right to a certain amount of fuel in a certain year. That's all it does. That utility has discretion either shipping those elements that created that right, other elements it owns, or they can sell that shipping right to some other utility who can ship whatever elements they please provided that they meet the requirements of the contract, a minimum of five year cold fuel can go into cans, etcetera, etcetera. Okay?
That's that. That, I think, is two of the things you asked me about, the allocation and DOE—and you can select.

The discussions, the negotiations that I talked about was aimed at the very, very first step of the program in that—let's call it for sake of argument the Phase 1A. Get the program operating in 2010 before you have the full blown facility constructed where you're going to be phasing in facilities. And, what you will have to do is talk to the utilities about, okay, you've got this allocation and you've got the right to give us any fuel you want, but if— I'm now thinking like DOE—if you want us, DOE, to move your fuel and your allocation, we can only do that if you give us this characteristic fuel. Now, what's it going to take to do that? What consideration do you want to do that? And, that's how those three things all fit together.

LUNA: Thank you.

ABKOWITZ: All right. Dave?

DUQUETTE: Duquette, Board. I know that Mark wants to stay on schedule and I'm a little late with this, but also someone in the audience apparently owes us all a drink. Just briefly, I know you prefer rail transfer. I'm going to be naive and indicate that I suspect that some of the plants don't have spurs in them at the present time, some of the ones in the east I can think of, in particular. What fraction of the used fuel do you think will have to be
transported by road or by barge or by something other than rail?

KRAFT: That's dealt with in the EIS. The mostly rail scenario that we support involves a certain percentage of truck shipments at 20%, something like that. It's not only rail. It's mostly rail.

DUQUETTE: And, that would be transported all the way to the surface facility? It would not be transferred in route to rail and then moved on?

KRAFT: It could very well do that, go all the way. But, those facilities do not have the heavy rail capability coming into their plant. Maybe that's 14 or 19 plants. If you look at the rail maps that are in the EIS, they're not terribly far from a rail head. So, they could perhaps load a heavier cask and haul it over to that rail head, but that means they have to have the ability in the plant for the heavy cask because a lot of those older plants that had no rail connection to start with didn't have the heavy duty crane either. So, there has to maybe either be a crane upgrade or they have to ship smaller casks. In terms of how barging might work, well, you know, I'm no geographer, but I don't think you're going to barge into Nevada. Well, now, wait, there is a contractor out there that's got a plan, but I don't know that it's going to work. But, facetiousness aside, those facilities that have the barge capability
1 might want to barge off the site to where there's a rail
2 head. When mildly spent fuel, 5% burned fuel, got taken out
3 of the (inaudible) facility and went to Limrick Plant in
4 Pennsylvania, they couldn't transport by rail or truck
5 through New York City. New York City has a got a ban that's
6 never been resolved one way or another. And so, to avoid the
7 fight, they barged down along the Delaware River somewhere
8 and then trucked in the rest of the way. It was a very
9 successful transport. So, we've had those experiences. And,
10 there are people who talk about barging, you know, east coast
11 to somewhere on the west coast and then trucking in. There's
12 lots of plans like that that are kicking around. I don't
13 know what DOE is going to want to do.
14    DUQUETTE: Duquette, Board. Finally, I have some
15 experience with the rail system in the United States and the
16 infrastructure is in pretty bad shape at the present time.
17 Do you think the Federal government should step up to the
18 plate and improve the infrastructure so that we can ship
19 fuel?
20    KRAFT: Well, I said before the Nuclear Waste Fund is
21 not intended to be sued for improving the main line rail
22 system. I think that the railroads have that obligation. If
23 they're going to warrant that they can move this fuel in a
24 safe secure situation, they've got to look at their own
25 infrastructure and do what they have to do. Now, whether the
railroads want to do some deal with DOE in some way, you know, that's subject to contract. You know, more power to them. Ask the question of Bob about that, but we maintain our facilities in a safe and secure manner every day and we can handle these materials and we expect other industries that we work with to do the same.

ABKOWITZ: Okay. Thank you, Steve.

KRAFT: Okay, thank you.

ABKOWITZ: Well, I think that Steve got us off to an excellent start in terms of focusing on the objectives of the panel.

And, I'd like to continue in that vein with these preparation of waste shipments not so much now from an entire industry perspective, but to hear more directly from a particular utility. In this particular case, we've invited Steve Edwards from Progress Energy to present that perspective. Steve is supervisor of spent fuel management for Progress Energy. He's responsible for all aspects of spent nuclear fuel within the company including strategic planning for interim spent fuel storage, on-site spent fuel storage projects, and the spent fuel shipping program which regularly transports spent fuel from the Brunswick and Robinson Plants to the Harris Plant near New Hill, North Carolina. The spent nuclear fuel shipping program which Mr. Edwards manages has been in place since 1989 and currently
transports over 300 spent nuclear fuel assemblies each year.

As I mentioned before, Mr. Edwards will continue to give the utility perspective on transportation planning.

Steve?

EDWARDS: Thank you. As has been alluded to a couple of times, I think there is experience already, both domestically and worldwide for transportation of spent nuclear fuel which will have direct implications in our planning for the Yucca Mountain site. I think we can take advantage of the experiences and the lessons learned that we have already gained to make that a much more successful effort.

So, what I wanted to do today was review with you kind of why we ship spent nuclear fuel. As we mentioned, we have shipped pretty much continuously since 1989, but we actually first started shipping in 1977. We have maintained an active shipping program over the years. We typically do about 12 to 15 shipments per year. We have about 16, I think, planned for this year as is currently laid out. So, I wanted to go through with you some of what we do in terms of insuring the safety, security of those shipments, and what we have found is an effective way to implement that shipping program.

First slide, please? So, what I wanted to go through is some of our transportation history with you which includes why we are in the shipping business and why we
1 continue to be in the shipping business and will be in the
2 future. Talk a bit specifically about some of the things we
3 do to insure the security of the spent fuel shipments as we
4 talk about what is important for implementing a shipping
5 program. I think I wanted to go through some of the things
6 that we have found are very important. There will need to be
7 considerations put in place such as the organization. It
8 does require a pretty significant organizational structure in
9 order to carry it out. It's much more than just a couple of
10 escorts. It may be identified in 10 CFR 7337. And, the
11 people that are involved with some of the skills and training
12 that are required in that area. The procedures that have to
13 be developed for every step along the way, both in the
14 loading, the unloading, and the transportation. The
15 coordination and notification working with all the various
16 states, counties, cities, organizations, local law
17 enforcement. Emergency planning between the shippers, the
18 carriers, etcetera. What we have gotten into there, I know
19 that one of the comments yesterday afternoon about the--the
20 lady brought up about the radio system they had gotten in
21 their county. They had a radio system, but they couldn't
22 communicate with some of the others. I mean, that's a
23 legitimate logistical issue that we have faced, as well, in
24 terms of you've got all these states, counties, communities,
25 the shippers, the carriers and it's important you're
1 maintaining continuous communication throughout the shipment.
2 And, things like compatibility of radio frequencies and such
3 is a legitimate logistical issue that has to be addressed.
4 And, finally, some of the emergency response. Even though we
5 take great pains to insure that every shipment is planned
6 safely and is executed safely, it's important that you have
7 in place a plan for providing emergency response in the
8 unlikely event that anything does occur.
9
10 Next slide, please? For those of you that may not
11 be aware, Progress Energy is a public utility in the
12 southeastern United States. We have service territory in
13 North Carolina, South Carolina, and Florida. We have five
14 operating nuclear units at four different sites. We
15 transport, as I mentioned, from Robinson Plant which is
16 located in South Carolina and our Brunswick Plant located in
17 southeastern North Carolina to our Harris Plant which is
18 located in central North Carolina. Our rail routes run about
19 200 miles or so.
20
21 Next slide, please? So, why are we in the shipping
22 business? The main reason is that it's necessary to maintain
23 the operating reserve at all of our nuclear units. The
24 Robinson and Brunswick Plants are both older design and
25 constructed units. Our Robinson Plant went into commercial
26 operation in 1971 and the Brunswick Plants went into
27 operation in 1974 and '76, respectively. As such, because of
the early vintage of the designs, they have very small spent fuel pools. They were designed under the assumption that the fuel would be reprocessed and would really only be staying at the plant long enough for it to cool down and to be shipped off site. So, we do not have adequate space at the sites to store 40 years or more worth of spent nuclear fuel.

So, that's the reason we initially got into the shipping business. We own a fleet of GE Model IF300 shipping casks. We have four of them, as well as all the rail cars, cabooses, and ancillary equipment necessary to maintain that. So, we ship to maintain our inventories at the Brunswick and Robinson Plants. We are able to do that because the Harris Plant, being a somewhat newer vintage plant, went into commercial operation in 1987, was originally designed as a four reactor site, had an integral fuel handling building for all four units. So, we have four pools even though we only have one reactor. So, we have the capacity to hold additional fuel beyond what the Harris Plant needed. And, I'll say because we are shipping to reduce inventories, maintaining our operational focus, that's one of the reasons that from our perspective whenever we do begin shipping, shipping directly out of the pool makes the most sense in terms of you want to keep the inventories down so you can continue to operate and off-load. So, the fuel that's in the pool is the fuel that you need to do that. So, from our
From our perspective, shipping directly out of the pools would be the top priority.

Next slide, please? Over the years that we've been shipping, we have conducted a total of 173 shipments which has covered about 30,000 rail miles and we have transported approximately 4,000 spent fuel shipments during that time.

Next slide? During this time, we feel we have an excellent operational record. We've had no radiological events. We've had no spills, releases, and in fact, we do monitor the radiation exposure of all of the personnel involved in the plant. We've never even had anyone on the shipping train even pick up any measured radiation dose, in addition to no dose to the public. And, we have significantly increased our security in response to the lessons that have been learned after September 11th.

Next slide, please? In order to have a successful spent fuel shipping program, I think there are certain things that are critical as the base of that and I wholeheartedly agree with a couple of the comments that some of the Board members and the staff made yesterday afternoon about making safety a primary part of your objectives. The way we perceive it, nuclear safety is the utmost top priority at all times. Even though we routinely ship spent fuel, shipping of spent fuel is never a routine activity. From our perspective, you have to have the same nuclear safety focus
that you have on any reactor operation activity. And so, we view it just as importantly and it receives just the same amount of management attention, organizational focus, financial resources, etcetera, as anything in the reactor operation side. I think that's an important point in order to be successful moving forward.

I think also you have to have clearly identified accountabilities. We are the shipper of record. We have a carrier. We use CSX as our carrier, but we also interact with local law enforcement, state organizations, emergency management organizations, communities, etcetera, and everybody has to know exactly what their accountability is at all times. In order to have a successful spent fuel shipment, it's important that it leave on time, that it arrive on time, that you have no unscheduled stops, and that any scheduled stops, over minimal duration. And, in order to accomplish that, absolutely everybody has to know what they're supposed to do and when they're supposed to do it, they have to have the resources to do it, and they have to be there on station to carry it out. So, I think everybody has to know their role in it.

In addition, I think something that's important is to having a continuous improvement in culture. We've never had any two shipments where we've done them exactly the same even though we've done 173 shipments. The way we view it is...
every shipment there is something that occurs that we can do better the next time. So, for that, we have multiple pre-shipment briefings where we involve all of the people who are going to be involved directly in the shipment. We'll get together days in advance, the morning of, etcetera, and we also have post-shipment critique and lessons learned where we go through the entire route and what worked and didn't work and what we can change for the next shipment. So that you're always looking for ways that you can make the next shipment more efficient and safer.

Next slide, please? We do use a dedicated train for our shipments. Slide #8 which appears not to be on the overhead here does talk about security. So, I wanted to touch base on that. You should have it in the hard copy. We do use dedicated rail shipments and I have here our typical lineup. As Steve alluded to earlier, the industry is pushing for dedicated shipments. We definitely use them and favor them. We got into it not because of any safety issues, but it does make the logistics much easier. We have escorts that ride the train. We have people that are involved with the shipment. We want to know what's on the shipment that is going directly from origin to destination. And, from our perspective, a dedicated shipment does that.

There are also security aspects of the shipment, as well, that have to be maintained. There's a lot of
safeguards information in terms of the time and date of shipment, the specific armory of any escorts, the actual number of armed escorts. We do work pretty closely in North Carolina and South Carolina with the North Carolina State Highway Patrol Department, in South Carolina with the State Law Enforcement Division for providing additional security support. We maintain a certain level of security. They maintain a certain level of security, as well.

In addition, we feel from a security standpoint that having a continuous monitoring of the shipment is important. We have a remote satellite monitoring system so that we know at any time not only where the shipment is, but what direction it's headed in, what the speed is, if it slows down when it shouldn't be, if it makes an unnecessary stop, etcetera. So, in addition to maintaining communication with the people on the shipment itself, we do maintain continuous monitoring of the shipment, as well.

Next slide, please? And, this is where we use the --in terms of the dedicated train lineup which we think is effective. And, as I say, we own two cabooses which we deploy, in addition to housing any escorts that accompany the shipment, any equipment necessary for emergency response, and other such things.

Next slide? The next area I wanted to get into that I think is important is the people that are involved in
the shipment have to be highly trained and qualified. For the most part, we have much of the same core team that has been involved in all of our shipments since 1989. We have a fairly extensive training and qualification program that we use for them. We use people at the sites for the loading and unloading operation and some of those same people are also used to accompany the shipment. So that we have people that understand the package, that understand how it works, what's normal, what's not normal, and can accommodate it. So, having people that fully understand what their roles and responsibilities are, as well as what they should expect to see, is an important aspect.

Next, please? Next, I want to talk a little bit about the organization. As I mentioned, if you look at the specific CFR requirements, it's going to talk about an escort or two. Don't get lulled into thinking that those are the only people necessary to make a shipment successful. We have a fairly formal organization that we put in place during any shipment and these are folks that are, in addition to their normal roles in the organization, they then take on these roles during a shipment itself. We have a shipment manager who is really responsible for the overall implementation of the shipment. He actually rides in a shadow vehicle accompanying the shipment so he is close to it at all times, can respond to the shipment if there is any duress or any
issues that need to be addressed. He stays in constant
contact with local law enforcement, with the carrier, with
escorts on the train, communicators in a remote facility.
So, he maintains an oversight and management of the shipment.
We maintain two escorts in the caboose which you
see a picture of one of our cabooses, one of this is a
radiological expert. He has the equipment with him so that
if anything did happen along the route, he would be the first
on the site that would manage any radiological event until
any external response personnel, as well as—we actually
maintain multiple mechanic experts. We maintain one in the
caboose and one in the engine up front. They know how to
operate the equipment and can respond to any equipment issues
that may occur.
Next, please? In addition, we maintain
communicators at a remote facility. They are the ones that
actually make notifications, communicate with state, federal,
local officials, stay in contact with the escorts, with the
shipment manager, and company personnel. They're at a remote
facility. They're also the ones monitoring the GPS system.
We have a response coordinator and teams. We
actually have multiple teams, one from the shipping and one
from the receiving site, that are on standby to proceed to
the site if there is any accident along the route. They
would be the first one. They would be immediately dispatched
1 to assist any local emergency personnel in the management of
2 the event.
3 And, finally, we maintain a response manager who is
4 responsible for maintaining senior management within the
5 company, corporate communications, monitoring the overall
6 aspects, and communicating outside the shipping organization.
7
8 Next? Next, an important factor we have found is
9 to have very detailed procedures in place that go through
10 exactly what we do. We have them for loading, unloading, for
11 shipment preparations. So, we have procedures we go through
12 so that all notifications to state and federal organizations
13 are made in a timely manner so that all communications occur, as
14 well as the equipment is prepared. We also have separate
15 procedures we use during the transportation route itself and
16 we have routine and emergency. So, within the procedures, we
17 have all the various scenarios that we would anticipate along
18 the route and exactly what kind of notifications would be
19 made, what responses would be made, etcetera.
20
21 Next? And, finally, in terms of the coordination,
22 this is something I know you guys have touched on on some of
23 the other presentations. One of the things that we've found
24 was very effective is that prior to establishing the shipping
25 program, we did hold meetings in various towns and counties
26 along the route. We had a communication plan and actually
27 identified who some of the key stakeholders were all along
the route which included local elected officials, emergency
management personnel. It included newspaper reporters,
etcetera. So that whether they bought into it or not, they
at least were informed of what was going to happen along the
route.

We also maintain a regular exercises with our state
and county emergency personnel. We did two of these last
year. We typically do them on at least an annual basis where
we bring in everybody from the communities along the route
and do a tabletop exercise so that everybody has a chance to
interact, to respond to what's going on.

In addition to the ongoing communication, we talk
pretty regularly with most--at least, the key organizations
that we work with. We maintain an ongoing dialogue for what
their needs are, what our needs are, what's coming down the
path, etcetera.

Next? Along the route, there are certain
notifications that are required by regulation. In addition,
we work with the local organizations for what they feel
comfortable with in terms of knowing. The regulations are
going to require notifications for the governor or the
governor's designee. In both our cases, in North Carolina,
that falls within the North Carolina Highway Patrol, and in
South Carolina in the State Law Enforcement Division, of
federal to the NRC. And, prior to commencing a shipment,
just following shutdown, and periodically during the shipment, we also maintain updates to the state and county personnel.

Next? And then, finally, in the area of emergency response, one of the things we find that's important is you've put everything in place you can to insure that you have a safe, smooth trip, and at the same time, you have to be prepared for any event however unlikely that could occur along the route. So, we identified a number of scenarios which we, through events along the way, build on this so we have bomb threats, terrorists, intervenors, derailments, bad weather, changes in Homeland Security threat levels, etcetera, a lot of predetermined scenarios and then exactly what we do if we have a shipment in route when one of these occur. What kind of notifications we make, who responds, who makes decisions, etcetera.

Also, as I mentioned, we have the caboose. We insure that we have all the radiological and hazard information readily available so that any personnel responding to an incident in route have all the equipment they need. We also have shadow personnel who are not directly on the train so that if for some reason the train itself--the people on the train itself were to become incapable of responding, we also have people that within a minute or two could be on site. And, we have dedicated and
trained response personnel who are on standby any time a shipment is in place in order to respond.

And, in summary, I think we have within Progress Energy, as well as within the rest of the utility industry, a significant amount of successful transportation experience which could be directly applied to the planning for the Yucca Mountain transportation and it is a very coordinated effort between the utility, federal, state, local organizations, carriers, etcetera, and is something that is going to require a lot of work between now and then, but it's definitely something that can be successfully accomplished.

That concludes my remarks and I'll be glad to take questions.

ABKOWITZ: Thank you, Steve. We'll start with Dick Parizek.

PARIZEK: Yeah, Parizek, Board. That's a very impressive story and I guess one question is what would it take to ramp this up to a national scale because you've been going in the southeast to the Harris Plant, but could you imagine what it would take to sort of nationalize this? I mean, your company could do it, it sounds like.

EDWARDS: You know, clearly, our duration is much shorter than what you have, but I think the components would be the same. So, I think it is something that definitely could be replicated. One of the things we have found is that
both the North Carolina and the South Carolina folks coordinate with us very well. We have developed over the years an excellent working relationship both at the state and the local levels with those folks. You know, that's not something that necessarily happens on Day 1. It's something you have to cultivate as you go forward. But, I think there's no reason that this type of process could not be replicated across the nation.

PARIZEK: Right. Parizek, Board. What's new since 9-11 that may change in terms of, you know, your protocols to the extent that you can answer?

EDWARDS: Sure. Well, we have put in some plays, some specific things, to insure our comfort level. In addition, the Nuclear Regulatory Commission has issued certain advisories and interim compensatory measures. I guess, the sum total of those are there is greater armed presence both on the shipment, as well as accompanying the shipment. There is greater security available to the shipment for fairly rapid response. I think there is a more closer monitoring of the shipment status and location. Increased communications. Those are probably kind of in summary. Unfortunately, the specific--I think, citizens would be pleased to hear, at least, in terms of what--in particularly, in North Carolina and South Carolina, some of the specific security measures that they have in place for either accompanying a shipment or
in direct response. I think it's pretty impressive what they have available and, unfortunately, the safeguards and restrictions prevent specific discussion of those so that any perpetrator wouldn't know exactly how to respond to it.

PARIZEK: Parizek, Board. About weather, do you pay attention to weather, tornadoes, hurricanes?

EDWARDS: Absolutely. What we do is we schedule our shipments obviously well in advance, but one of the things we do is we formally do it the day before shipment. We actually sit down in a group conference call and what is the weather forecast, what is the national security threat level, you know, what sort of chatter are we hearing from the FBI, from our internal security. So, we do that formally the day before shipment. We also do it the day of a shipment. We again sit down before we release the shipment and say, okay, what is the weather in route, what is the security situation, and we make a conscious—those are two conscious decision points on whether or not a shipment proceeds.

PARIZEK: You're saying no two shipments are the same. What sort of surprises or differences have occurred that make you state that?

EDWARDS: Well, we'll get into working with the rail system. We typically use main rail routes. So, one of the areas you get into is what is the ideal time to go so that you don't have other interferences? That's one. We've also
had some incidents. We had one that actually got some press out here back in March of 2001 where we had a couple of escapees from one of these boot camp road crews which we encountered along the way. So, you know, that got some press from the standpoint of from the negative side of, well, folks said, hey, this proves how easy it is for folks to--could be to attack a shipment. But, we looked at it from the opposite point of we knew exactly who these guys were, we knew they were not armed, we knew exactly where they were. You know, had we chosen to take more evasive action, we could have. It was not necessary in that case. But, what we found from that was not so much the security aspect of it, but the communication aspect of it was an area where we found some improvement opportunities.

PARIZEK: Thank you.

ABKOWITZ: Okay. I've got Dan Bullen followed by Thure Cerling and then Ron Latanision. I'd like to ask each Board member to keep it to one question, please.

BULLEN: Okay. Bullen, Board, just a quick question. First, thank you very much for the presentation. It was very informative and we learned a lot with respect to your success in transporting spent fuel. My question is how do you convey that success or your lessons learned to a group like DOE? What types of communications do you think would be necessary for DOE to learn from your successes?
EDWARDS: We had one initial meeting, at least, with some of the Bechtel folks where they came in to discuss with us, at least, what procedures we have in place. We've also talked to the GAO and a couple of other folks, as well. From my perspective, we'd more than happy to maintain a dialogue and meet with them, share with them both our lessons learned, procedures, those type things. So, you know, we're more than happy. We've had some very preliminary discussions to this point, but we'd be more than happy to engage in more detailed dialogue and information sharing.

BULLEN: Thank you.

ABKOWITZ: Thure?

CERLING: Well, I was going to ask a similar question, but I'll go to a different one. Well, what mechanism is now in place for you to share your experiences with the other utilities that might be doing similar sorts of experience and how much communication is there for all of the industry to learn from each other?

EDWARDS: We work with NEI, we work with EPRI. You know, we have various meetings that occur throughout the year where we have opportunities to share information. Obviously, within the nuclear plants, we have operating experienced systems, where any time we—which we monitor pretty closely, other utilities monitor pretty closely, so that we can see what someone else has done that maybe worked or didn't work.
In addition, we have maintained professional contacts with our counterparts in other utilities. You know, obviously, there could be a more formal process for that, but that's at least the way we do it now.

LATANISION: Latanision, Board. I missed the plate of what evolves after a shipment arrives at Harris.

EDWARDS: Okay.

LATANISION: What's the--

EDWARDS: What happens when a shipment arrives, once it gets into the plant protected area, our shipping organization really shuts down and you go into the plant organization. The plant actually takes ownership of it. The way we do it is the shipment begins and the shipment ends when the CSX has connected to the rail car and we've turned over the shipping paperwork and then it ends when we actually take possession. They disconnect their engine and we take possession of any shipping paperwork. At that point, the shipping organization really shuts down because you're within the protected area of the plant within the security and the procedures that exist. You have the emergency plan that exists for the plant and then we go into the--all the notifications for shipment shut down for the various state and federal organizations and local organizations and then we go into--we unload it and put the fuel in the Harris pool and then begin preparing the cask for return shipments to either Robinson or Brunswick.
LATANISION: Okay.

ABKOWITZ: Thank you, Steve.

EDWARDS: Thanks.

ABKOWITZ: Well, I think we're off to a wonderful start in terms of focusing on information that's going to be very helpful for the Board as it understands the transportation system planning requirements.

I neglected to mention after Steve Kraft's presentation that at the break if any Board member would like to self-nominate as a candidate for morale officer, I'll be handling those things. We may make it part of the social chairman's responsibilities, however.

We're going to shift gears slightly now and get into the container availability and use question. This is kind of part and parcel with the preparation of waste shipments because obviously if you don't have the right container available, then you have an interface problem with product that can't move even though it may be ready to move because you don't have the right equipment to deal with that.

So, we're very interested in understanding that issue.

And, speaking to us today on that subject will be Ian Hunter from Transnuclear Incorporated. Ian has more than 25 years of mostly international experience in the nuclear industry. His expertise includes all aspects of transport planning; cask design, licensing, and fabrication;
transportation logistics; cask operation fleet maintenance; emergency planning; and outreach programs. Effective about three weeks ago, he was appointed Vice-President of Government Operations at COGEMA, Inc., where his responsibilities include developing COGEMA's corporate strategy for supporting DOE's future needs to ship spent fuel and high-level waste to Yucca Mountain. Although we invited Mr. Hunter to give us the perspective of a cask vendor regarding transportation planning, I think it's fairly evident from his biography that his expertise is much broader than that.

Ian?

HUNTER: Thank you, Mr. Chairman, and good morning to members of the Board and members of the public. It is a pleasure to be here today.

I should mention one corporate issue. You'll see on the slides the name Areva. I will be talking today mainly about COGEMA, Inc. and Transnuclear, Inc., U.S. companies. We are part of the Areva group which is a worldwide group with interest in energy and connectors employing 75,000 people worldwide. In the U.S., we have about 7,500 employees.

Next slide, please? I've repeated the questions which I read in the invitation to come here. At the end of the presentation, I will attempt to answer some of these
Next slide, please? I took the liberty to stray into this afternoon's session on lessons learned and I will also attempt to answer some of these during the presentation. Thank you. I want to start by talking about the broad experience of COGEMA. More than three decades of safe spent fuel transportation. A comprehensive experience in all aspects of the transportation business. A well-established presence in the U.S. It's interesting if you look back into the history of Transnuclear, Inc., it was formed back in 1965. That's almost 40 years ago. Specifically, with the intention of having a company dedicated to shipping spent fuel. That was at a time when people expected the nuclear industry in the U.S. to go for a closed cycle with reprocessing. We all know that hasn't happened, but still there is a need for transportation. Within the Transnuclear, Inc., organization, there's about 100 engineers dedicated to the safe design of packaging and the safe transportation. I noted a few words that we used this morning; holistic approach and integration. I would certainly mirror that as a sentiment of COGEMA and the way in which we organize our transport.

Just an example of one of the Transnuclear end products, this is the TN 68 dual purpose cask. It's for storing and transporting BWR fuel licensed in both Part 71

questions.
1 and Part 72. This kind of cartoon picture shows you a 
2 cutaway illustration. It's a metallic cask with a bolted 
3 lid. It contains 68 BWR assemblies. I'll show you a 
4 photograph of it in service later on.

5 Next slide, please? In addition to shipping spent 
6 fuel, we also ship high-level waste which is in glass 
7 containers. The photograph on the left, you'll see the 
8 operation of loading the containers, and on the right hand 
9 side, you'll see actually a high-level waste cask and the 
10 shipping operation where the cask is being transferred to a 
11 shipping frame.

12 Looking back at the history of Transnuclear, Inc., 
13 in the early days of the foreign research reactor fuel, 
14 Transnuclear was involved in a lot of the shipments to both 
15 Savannah River, a total of over 250 shipments were 
16 successfully undertaken. And, I think, this afternoon, 
17 you'll be touching on the experience of foreign research 
18 reactors. So, I won't say any more about that.

19 Also, we've been involved in shipping fuel-- 
20 actually, I think there's an error on the slide here. I 
21 think it was from West Valley. Is anyone from West Valley 
22 here? Yeah, apologies for that. Again, I was probably in 
23 high school when that took place. We also own some TN8 and 
24 TN9 casks which are clusters, overweight truck casks, and 
25 they've been used for internal movements. And, we've also
Moving worldwide, COGEMA group is safely shipping spent fuel as we talk today. That experience runs over three decades from countries as far away from Europe as Japan which involves very long sea distances, typically a six week voyage, and also across the European continent spanning many countries from Spain, Sweden, Italy, Germany, Holland, and many others, as well as shipping 30,000 metric tons of spent fuel during that period. More recently, the high-level waste which has been produced from reprocessing has been converted into a vitrified residue and those have been shipped back to the customers. Up to now, we've shipped almost 1,000 tons of high-level waste in similar packaging.

We are experienced in cask fleet management. COGEMA logistics which is based in France manages the COGEMA fleet for shipping spent fuel to COGEMA La Hague. They own a fleet of 50 heavy transport casks, special heavy haul trailers, and dedicated rail cars. They also operate on behalf of other owners; people such as Electricity De France, EDF, and PNTL, casks on their behalf for shipment to COGEMA La Hague.

Just a few words about cask maintenance. This photograph shows a COGEMA owned maintenance shop. This particular shop is dedicated to the maintenance of heavy casks. It has a throughput of around 150 casks per year.
One of the important things to remember about maintenance, if you're operating a spent fuel cask which probably has an operating life of well-over 20 years, there is a significant amount of maintenance which is required not because the cask itself wears out, but it's subject to minor bumps and scrapes. And, within the provisions of the safety analysis report, there is periodic maintenance required. This maintenance needs to be carefully managed, it needs to be carefully controlled. It's an integral part of the transport operation. And, one thing I would recommend is that those who are responsible for design in the holistic approach take some note of that. We do have a lot of experience in maintenance. I note there are a number of consultants working for DOE in this area, but to my knowledge, no one has consulted COGEMA or Transnuclear, Inc., to date, on cask maintenance.

Thank you. Multi-modal transports, you'll see photographs there of rail cars, dedicated ships, special heavy haul trailers. When you've moving from long distances, not every facility has a rail link, and therefore, there are multi-modal shipments involved.

Next slide, please? This photograph shows the Valognes terminal in the north of France. This is about 20 miles from COGEMA La Hague reprocessing plant. Strange as it may seem, there is no rail link into the plant. There wasn't
one when the plant was conceived and they performed many studies and deemed it was economically unattractive to install a rail link. So, in effect, every single spent fuel assembly which is shipped to COGEMA La Hague goes by truck for the final 20 miles. This terminal was built specifically to do a safe transfer from rail to truck.

Our previous speaker, Steve, mentioned the importance of tracking the shipments. COGEMA Logistics was one of the pioneers in developing satellite tracking for radioactive package shipments. It now becomes a regular part of our operations. I wouldn't use the word "routine". Using the word "routine" implies that we perhaps still pay attention to things. That's not the case. All of the shipments from COGEMA Logistics are tracked in a real time basis. You'll see a photograph there of the control room or the operations people, but, in fact, actually duals as an emergency response center in the event of an incident.

Next slide? Careful planning, preparation, training, procedures, all very important. Emergency exercises are held regularly. They do involve stakeholders, people like firefighters, police. I've participated in many of these exercises. A lot of lessons learned both for the people involved at the site and those remotely trying to control the operation. What you see in the photograph on the right is a recovery exercise where a 100 ton empty cask has
been placed as if it's run off the highway and the emergency
tools are charged with the task of recovering it safely. We
do take these exercises very seriously and we go as far as
involving media personnel. We will actually employ
professional journalists to act as real time press people and
test the response of our own media people; very interesting.

Part of the holistic approach without mentioning
public outreach, there was a question about stakeholders
earlier on. I would go as far as to say that everybody is a
stakeholder including members of the public. A lot of us who
have spent time in the nuclear industry have been behind
closed doors, inside nuclear plants with nice high fences.
It's very easy to get complacent and forget about the public
in some instances. If you're in the transportation business,
you are out there in the public domain. There is a
responsibility to go out and talk to the public, listen to
their concerns, and to give them what information is
necessary to allay those concerns. We do have dedicated
teams of people working on this and we couldn't have
successfully shipped large quantities of fuel over large
distances without going out and talking to people on a
regular basis.

A few statistics to give you. Group together the
spent fuel shipments, high-level waste, plutonium oxide, and
MOX shipments, together with low-level waste. I don't have
any numbers for 2003, apologies. Those numbers are just being compiled. But, basically, we're talking around 1,000 shipments per year on a regular basis going to the COGEMA La Hague Plant, either in or out. Typically, about one per day spent fuel casks arrives at the plant.

Coming closer to home in the U.S., I'll just mention very briefly that COGEMA is involved in the DCS MOX Project to convert weapons grade plutonium. It's a mixed oxide fuel. There is a transportation element to this. Obviously, the plutonium itself needs shipping and the MOX assemblies and we are assisting the DOT with this transportation. Within the not too distant future, the lead test assemblies will be fabricated in Europe and shipped over to Duke for radiation in one of their reactors.

Even closer to home just down the road, the Yucca Mountain design teams are working on the surface facility on behalf of Bechtel. If there's any questions on the COGEMA part of that, I'd be pleased to answer them.

Next slide, please? Just digressing slightly to other areas of packaging and transport, trans-uranic waste. There's a subsidiary of Transnuclear called PacTec who designed and supplied packaging to the DOE for trans-uranic waste. This is the RH72B cask. And, we are currently working on TRUPACT-III again for trans-uranic waste. This is being developed on the European TN Gemini cask.
I think there's a speaker this afternoon on West Valley. No doubt, they'll go into more detail on their experience. The two casks which recently shipped spent fuel out of West Valley were the TN REG and TN BRP casks designed by Transnuclear.

Okay. Nice map of the U.S. showing the locations of the ISFSIs where Transnuclear is serving customers to provide dry storage. The initial dry storage, we supplied to customers was for site-specific on-site storage only. More recently, there's been a trend for people to go to dual purpose systems. You'll see we have quite a wide extensive spread. I would say we're in an ideal position, Transnuclear and COGEMA, to assist the DOE in interfacing with a large number of the U.S. utilities.

I'm not going to go through all the numbers. We don't have time. This is just a breakdown of the dry storage customers from Transnuclear. On the right hand side, there's a pie chart. Approximately, two-thirds of all spent fuel that's in dry storage today is in Transnuclear systems. Two main systems, the NUHOMS canister system where the fuel is placed in a welded canister and the TN metal cask system where it's in a bolted metal cask. We offer both technologies.

Just some examples of the metal cask deployment. For Dominion, we supply metal casks TN 32 model to both Surry
1 and North Anna, you see in the photographs there.

Next slide? And, for (inaudible) at Peach Bottom, we supply the TN 68 cask. That was the cutaway illustration I showed you earlier. 44 casks on order, 20 loaded. I made a rather bold statement there, they are ready to ship to Yucca Mountain. What I mean by that is this is a Part 71 licensed cask. All you would need logistically is a heavy haul trailer and a pair of impact limiters and within a few hours, TN 68 casks could be on the road and rolling towards Yucca Mountain. They are licensed for it today. That photograph was taken, I think, pre 9-11. I expect if one of our staff tried to take it today, they may risk getting shot with the security arrangements.

Next slide, please? TN 40, one of the earlier casks we supplied, site-specific storage cask only out in Minnesota, a beautiful picture of that with the snow on the ground and on top of the containment building. Last week, we attended a meeting with the NRC and NMC, the operators of the dry storage fleet for Prairie Island, and we had preliminary discussions about how we could introduce a transportation license for the TN 40 casks. The technology in the TN 40 cask is identical to the TN 68 and we're fully confident that we can find a way to ultimately have these licensed so they can be shipped off site.

Okay. Getting back to the real meat of the
presentation, you know, the vendor's perspective, we can provide cask and transport solutions to both the commercial sector and to DOE. But, more importantly, I think, with our parent company and our broad experience worldwide, we are offering a gateway to DOE, a gateway to look into that experience and look how COGEMA apply the same holistic approach.

Next slide, please? Moving towards some answers, I've just picked out a few of the questions. What do I think are the main characteristics of the Yucca Mountain shipping campaign? I've listed four. One is the considerable distances from the individual sites. I think there's 102 operator reactors in the U.S. at the moment. Not many of them are close to Nevada. So, they've all got some distances to travel. Not all of them have rail links. Some of them may even prefer to barge, as was mentioned earlier. So, there will be multi-modal shipments required. There are a lot of stakeholders involved; traveling long distances, going through different states, dealing with tribes, etcetera. The fourth characteristic is, you know, what is the most important thing, safety and security. If I compare that with COGEMA's experience, same order of magnitude of the order of a few hundred casks per year regularly being shipped, we do address multi-modal shipping in order to ship fuel from places like Japan through the Panama Canal and across
European countries, each of which has its own set of regulations and requires its own individual cask licensing. We do have experience of multiple stakeholders. So, these characteristics are very similar to the challenges for Yucca Mountain.

What works well? For me, what works well in this industry is the regulations for the casks themselves, the packaging and transportation regulations, the IAEA, International Atomic Energy Agency, regulations have been adopted into national law in virtually every country in the world. They said it was a good model. They are extremely close to the Part 71 regulations in this country. I think also that the cask safety has been demonstrated by the excellent safety record, and in many millions of cask miles, there's never been an accident involving the release of radioactivity. Also, what I think works well is the public demonstration tests that have taken place. When there have been specific concerns of stakeholders, the industry has reacted. I know there's some discussion recently about package performance tests. I would welcome that certainly from the point of view of public confidence, but only if these tests were carried out at regulatory limits or with realistic, credible accident conditions.

Next slide, please? How shall we use the lessons learned? Well, you're going to touch on that more this
1 afternoon with the domestic shipments and foreign research
2 reactor programs. But, I'm offering an open invitation here
3 today to anyone who is involved to come and talk to COGEMA
4 and learn about our experience in the holistic sense of the
5 world of transportation; everything including preplanning,
6 outreach, logistics, fleet management, emergency planning.
7 You can't just take one element and look at it on its own in
8 isolation.

9 From a security aspect, we do take this very
10 seriously. As far back as the 1980s, we performed tests on
11 Transnuclear casks with the aid of the military to determine
12 what the real threat level was in terms of being able to
13 penetrate one of these casks. Some of our customers in
14 Europe for dry storage cited in areas where there is a volume
15 of air traffic which makes them concerned about the
16 possibility of aircraft crash, even though it's a remote
17 possibility. So, the dry storage casks which we supply to
18 Belgium and also in Switzerland, these are all tested for
19 resistance to aircraft crashes. So, we have actually built
20 one-third scale models and impacted them with simulated
21 masses of F-16 and F-18 fighters and the casks do not break.
22 Again, public outreach is an industry priority. I
23 do believe we share a collective responsibility in promoting
24 safe transportation and COGEMA participates in organizations
25 such as WNTI, the Word Nuclear Transport Institute.
Other the lessons learned for Yucca Mountain? I must touch again on the work that's going on just a few miles down the road here with the COGEMA teams designing the mechanical handling equipment for the surface facility. I think that's an example that shows how COGEMA technology can help the industry and the U.S. to meet its needs. What should DOE provide to vendors? Well, the first thing is an opportunity to find out what we have to offer. I'm pleased to see that in Gary Lanthrum's strategic plan he's scheduled a series of meetings with the cask vendors. In fact, Transnuclear will be meeting with members of Gary's team next Tuesday. I hope this is a first of a series of meeting. We do recognize that the strategic plan is it's an early stage. There's a lot of detail to be added. From a technical point of view, we would like to know exactly what fuel specifications would be required, what types of casks they're looking for in terms of big heavy casks or legal weight truck casks, what are all the constraints and limitations that we would have to interface with at the sites to make this work? And, more importantly, what is DOE's expectations in terms of standards and specifications? We can only learn that through dialogue.

I'll just step back before saying a few final words. I'm making it at a 10,000 foot observation. I know that there are legal problems between the DOE and the
individual utilities with regard to the contracts, but it is perhaps something of a shame that some of the utilities are going to the extent of buying dry storage which is for storage only on site without any consideration for the end use. I think what's lacking in the whole system is somebody taking a big picture view, a kind of life cycle cost analysis. I mean, what is the real cost of spent fuel from the time it comes out of the nuclear reactor? We do have people at the moment in individual utilities that are charged with buying dry storage as they've already paid at the Waste Fund. They want to pay the minimum for the dry storage with perhaps no considerations for where it's going to go in the future. So, ultimately, a large quantity of our fuel may have to be repackaged and I think that's a shame.

So, my message to the DOE is, please, continue to talk to us. I will take off my corporate COGEMA-Transnuclear hat now and just mention the U.S. Transport Council of which we are a member, it's a group of commercial representatives from the nuclear transport industry who have got together to try and promote safe transportation and to bring whatever resources together they can to help DOE make this work. Industry does want the program to succeed.

Thank you.

ABKOWITZ: Thank you, Ian. You've covered a lot of ground and I don't want to shortchange the questions and
answers. So, somehow, we'll have to juggle this up. As the moderator, I'm going to allow myself the first question.

I understand that there are some wastes for which we do not have certified casks to move it at this point in time. I was just curious to find out what kind of time frame is required to go through a design, testing, certification, etcetera, etcetera, etcetera, until such time as it's actually ready for use.

HUNTER: You mean, start from a clean sheet of paper or from an existing design?

ABKOWITZ: From a clean sheet of paper?

HUNTER: Well, just to give you an analogy, we regularly contract with commercial customers for dry spent fuel storage and we're offering dual purpose solutions. In some instances, we've started from a clean sheet of paper and actually loaded spent fuel in a licensed system two years later. That's a fairly fast track. But, with the commercial sector and with good corporation from the (inaudible), I would say three to four years is reasonable planning, maybe a bit longer with the DOE where there's more constraints and more interfaces. But, certainly, now is the time to start looking at it.

ABKOWITZ: Thank you. Ron?

LATANISION: Latanision, Board. Slide 31, please? You mentioned that casks have been tested for sabotage aircraft
crashing. What are the standards or criteria that were established before these tests and what kind of results?

EDWARDS: Well, with respect to sabotage, there were no criteria involved. That was a confidential study that was done with the security agencies and the military to look at things like (inaudible) charges. So, I couldn't discuss the technical details of that.

LATANISION: This is the U.S. military?

HUNTER: I think, it was the French military for the Transnuclear casks in France, but I assume there's some cooperation agreement between the various security authorities to share this data. And, if there's not, we'll make sure that the data is available. With regard to aircraft crash, the Swiss and Belgium safety authorities, they define for us a loading curve in terms of force per unit time which we have to comply with in the model tests. That was representative of either an F-16 or an F-18 aircraft crash.

LATANISION: Thank you.

ABKOWITZ: Dan?

BULLEN: Bullen, Board. Could we just go to the next--actually, the previous slide, 30? You mentioned the package performance tests should be at regulatory limits. The first question is do you think these should be full-scale tests?

HUNTER: For public demonstration, yes, I think that's
what the public wants to see. Even though from an engineering perspective, scale model testing is perfectly valid, but what the public wants to see is Scale 1 testing.

BULLEN: Okay. Bullen, Board. I actually agree with you. I think that would be the best demonstration for public tests. I guess, the followon question is when you state regulatory limits, it brings to mind in the United States a drop test onto an unyielding surface, a drop test onto a pen, throw it in a fire, drop it in the water, but a lot of the public is actually interested in sort of the design basis accident and maybe even beyond design basis accident. So, are you opposed to them going beyond a design basis accident to see what it takes to actually fail a container?

HUNTER: Okay. Well, I think, you have to remember that the regulations where you have a nine meter drop or a 30 foot drop in a half hour fire, those are actually termed as mechanical tests and thermal tests. They're not accident conditions. The regulations are very deterministic. There have been public demonstration tests on what you might call credible accidents. Like in the UK, they crashed a train at 100 miles an hour into a cask. In actual fact, the forces imposed on the cask were less than those of a 30 foot drop. What I personally would not support is testing a cask to destruction simply to see what the ultimate limits were. That serves no purpose other than to say to people, oh, these
things can break.

BULLEN: Bullen, Board. I'm familiar with the British test of the train and I understand that, but I guess the test that comes to mind would be something similar to the Baltimore Tunnel fire where people are very concerned about the integrity of the containers in a real scenario accident. And, I know that's been analyzed to death by both the NEI and EPRI and NRC, but a test of that nature is beyond the design basis or is that within design basis?

HUNTER: Well, again, a realistic accident scenario with a realistic fire situation, I think the IAEA studies have shown that something like 99.9 percent of all accidents are bounded by the regulations. So, I don't know if we were in a realistic accident. It's very hard to engineer a severe fire condition around a spent fuel cask.

BULLEN: Bullen. I agree. Thank you very much.

ABKOWITZ: Ian, thank you.

We're a bit behind schedule. So, we are going to break. Don't worry about that. But, I'm going to ask that we limit our break to 10 minutes instead of 15 minutes. Thank you.

(Whereupon, a brief recess was taken.)

ABKOWITZ: The good news is we have a lot of people here with interests in transportation, and therefore, the breaks are an important opportunity to meet and greet. The bad news
is that we have a very ambitious program and we want to make sure that every speaker has an opportunity to share their views including accommodations for public comment periods.

What I wanted to mention before we get started in this next session is that the people who have signed up, the list of people who have signed up to speak during the public comment period, is growing and we want to make sure that everyone has that opportunity that has or will be signing up. I would like to ask those of you that will not be able to stay until late this afternoon to go back to the desk and identify yourself with Linda Coultry--Linda is raising her hand, both hands--so that we have better understanding of that and we can try to fit you in before the lunch break.

We're now going to move on to the next part of the program and we're shifting gears now from the folks that have the waste and are developing the packaging to be able to get that in preparation for shipment and the handoff of custody to the folks that will be providing the in-transit operation, namely the carriers. So, this next session is going to focus on carrier considerations. We'll be hearing from both the truck and rail industry and that's certainly not meant to exclude the barge transportation or the yet to be proposed Caliente Canal. Then, before we break for lunch, we'll have a discussion from DOE, as well, on the receipt of the waste shipments at Yucca Mountain. And, as I said, we're going to
try to also accommodate a public comment period.

So, without any further ado, let me introduce our speaker representing the truck carrier. That's John Hauser who is the Project Manager of the Nuclear Division for Tri-State Motor Transit. John is Division Manager with over 30 years of hands-on experience dealing with transportation of all levels of nuclear materials and radioactive products.

For the last 15 years, Mr. Hauser has developed and coordinated projects involving relocation and temporary storage of radioactive spent fuel. Prior to that, Mr. Hauser assisted in the design of packaging and trailer equipment for various levels of radioactive materials. And, as I mentioned before, Mr. Hauser will give us a view on the trucking industry on Yucca Mountain transportation planning.

John?

HAUSER: Okay. What I'd like to do is provide a view of our company, Tri-State Motor Transit. We've been involved in transportation of radioactive material for decades. We have a CD-ROM that's interactive that shows our capabilities and just exactly who we are. At the end of the presentation, our web site is shown and anyone can request a copy of this CD and we will send it to you.

(Pause.)

ABKOWITZ: John, you have an opportunity to tell your best joke.
SPEAKER: John, my presentation is still up. Would you like to go through that?

HAUSER: Okay. There we go.

(Pause.)

ABKOWITZ: Does the Board have any questions for John?

SPEAKER: How about them Patriots?

ABKOWITZ: I have one. Is Bedrock, Inc., a Fred Flintstone company or--

HAUSER: The gentleman that bought our company just a couple of years ago, he said that was his parent company, a rock crushing company, that had been in business quite a while and the jokes went crazy. We were going to change our company slogan to yabba-dabba-do, and that didn't go over very well. He takes everything very seriously. We went back to painting all of our trucks green which was the old Tri-State color and he's interested in maintaining us in southwestern Missouri.

ABKOWITZ: Let me ask a question of Bob Fronczak. Bob, would you be prepared to speak now, to speak if necessary?

FRONCZAK: (Inaudible).

ABKOWITZ: Okay. Would it help from a technical standpoint if we stopped or--

FORD: Let's give it one more try.

ABKOWITZ: Okay.

HAUSER: I'd have a little bit more of an oral
1 presentation without the CD, but it's not as entertaining.
2   (Pause.)
3   HAUSER: I can go ahead and give a presentation without
4   the CD.
5   ABKOWITZ: Well, why don't we give it a try. You'll
6   hear Part 2 of John's presentation in a little while.
7      Okay. We're going to start with the rail carrier
8   considerations and I'd like to introduce Bob Fronczak with
9   the Association of American Railroads. As most of you know,
10  the AAR is a trade association that represents the major
11  freight railroads of the United States, Canada, and Mexico.
12  In fact, the AAR members are responsible for 76 percent of
13  the line haul mileage, 91 percent of the employees, and 93
14  percent of the freight revenues, and most of the intercity
15  passenger miles on those railroads. Bob is currently the
16  Assistant Vice-President of Environment and has his materials
17  for AAR and his responsibilities include the development and
18  coordination of railroad industry hazardous materials,
19  nuclear waste transportation, and environmental policy. He
20  actively participates on AAR's nuclear waste transportation
21  task force, the group of rail members that have
22  responsibility for developing railroad nuclear waste
23  transportation policy. And, he is also AAR's member on DOE's
24  transportation external coordination working group or TEC
25  which you'll hear more about as the day goes on. Bob has
also participated in many of the efforts the industry has initiated since September 11th, 2001, in the area of hazardous materials transportation security.

On a personal note, I wanted to thank Bob for changing his schedule so that he could be with us today, although I am somewhat concerned about the statement he made back to me when I apologized for the schedule the way it was. He said you'll hear from me later. So, I'm still wondering and waiting what that will require.

Bob?

FRONCZAK: I was afraid for a second there that my presentation wouldn't work either.

You know, having been involved in a rail transportation industry for 20 some years and the fact that the rail network is spread out amongst all 48 lower states and North America, for that matter, I've traveled a lot. I've missed anniversaries. I've missed holidays. I've missed birthdays. Today, I missed a dentist appointment and I'm going to miss my son getting his varsity letter in soccer tonight, too. So, I missed two things for this one. But, I think, all in all, this is an important event and I'm glad I'm here.

First slide, please? What I'm going to do is I'm going to address the questions that the Board addressed us. One of the things I'd like to address by Board member
Duquette is that the rail infrastructure is in not so good a shape. That's very far from the truth. I think the Class 1 railroad network is in the best shape it's been in its history and I'm going to go through some of the safety statistics that show that.

Now, there are issues with the transportation of spent nuclear fuel into some of the nuclear reactors because some of those go into reactors that don't have rail service or don't have periodic rail service. The rail network into coal fire power plants is excellent. Going into a nuclear reactor, it may be a little different story. It might be on a short line and there might be some issues there.

Next slide? Some background I'd like to go through is I think at this point most of the shipments are going to go by rail. Some of that has to do with the efficiency of rail and the weight of the casks. They are very heavy.

We do have a very good accident record and I'm going to go through some of that. Right now, we're estimating that there's going to be 250 to 400, say, shipments per year of rail transport when Yucca Mountain comes on line. Today, we probably have an order of magnitude of less than that. We probably have 20 to 30 shipments per year. So, this is going to be a significant ramp up and yet it's going to be a very, very small portion of our business and we want this to integrate with our current business as
effectively as we can make it happen.

It's going to be a long shipping campaign. So, we feel that there are some things that we can do to the equipment to help reduce derailments. These shipments are going to be high visibility. They're going to get a lot of attention and I don't think we want to have that derailment if we can prevent it.

We want to minimize the impact on operations and insure continuous improvement and ultimately our goal is incident-free transportation.

Next slide? We feel that there are significant safety advantages to rail transportation. 99.9956 percent of all hazardous materials that are shipped today arrive without a release of hazardous material. There's never been a release, we've heard that, of radioactive material in the transportation of spent nuclear fuel by rail.

Next slide? Our safety record is improved tremendously since 1980. And, 1980 is important to the rail industry because when the Staggers Act was passed. We were "deregulated". We're still very regulated industry. But, it allowed us to go very much to contract rates, and because of that, we've been able to invest a significant amount of money in infrastructure and our safety record has shown it. Hazmat accident rates have declined by 87 percent since 1980 and 34 percent since 1990.
Next slide? Derailment per million train miles have dropped 70 percent since 1980 and 23 percent since 1990.

Next slide? One of the issues that we feel is important is the issue of dedicated trains and we've heard it this morning from Steve Kraft. I guess, the key reason that dedicated trains are important is it reduces in our opinion the probability of a derailment due to adverse train dynamics. What I mean there is that a standard freight car is 100 tons and that's 263,000 pounds gross weight on rail. We're going to 286,000. A spent nuclear fuel car is going to weight estimated well over 400,000 pounds and I'll show you what the private fuel storage car will weigh. That's going to weigh 476,000 pounds. Some of the Navy cars going today are over 500,000 pounds. Now, that's a significant weight difference than a standard freight car and that sets up adverse train dynamics when you have that kind of car next to empty cars in regular freight transportation.

We take derailments as a very serious safety issue. That's how our industry is judged in the safety arena. There's a lot of efficiency benefits to dedicated trains and I think you heard some of that this morning. One of them is both safety and efficiency, but there's fewer switches. You don't have to go through classification yards in a dedicated train. Now that can save you from, you know, say, eight hours on a typical good day when it hits the yard, makes a
train, gets into another train, or it could take up to 48 hours or better if it hits it on a weekend and there's no train going. I've heard of chief operating officers go ballistic and threaten to fire people for seeing locomotives sit on the side of the rail not working like they're supposed to be working. That's about a $2 million investment. These casks are going to cost somewhere on the order of, say, $2 million to $3 million. I think that's an investment that we want to keep working. As a taxpayer, I'd like to see it keep working.

By using dedicated trains, best available technology can be utilized. If you put these casks in regular trains, you're subject to whatever freight is in that train. That could be a 40 to 50 year freight container. Not to say that that freight container is not safe, it's just that you can build additional safety into these containers, and I'm going to go on to that in a little bit more detail. And, Steve mentioned it this morning. I think, not only does DOE need to make a decision on the mode of transport which I think they're pretty close to doing, but they also need to weigh in on how they're going to transport it in the use of dedicated trains.

I heard the question of the Baltimore Tunnel brought up this morning, too. And, had that shipment been done in dedicated trains, there wouldn't have been that car
of, I think, tripropylethaline (phonetic) that would have caused the fire that was in the Baltimore Tunnel.

Next slide? From a security standpoint, we have not taken a real strong stance on security other than to say that if you're going to provide security on board that train, we don't run cabooses anymore. That caboose that you saw this morning by Progress Energy was a company-owned caboose. The railroads use end of train devices now to do the same thing cabooses used to do. So, if you want to use on board security, you know, we suggest that a personnel car be provided, that that personnel car have the comforts that are necessary to maintain people on that train for several days which is the amount of time it could take to run from the east coast all the way out to some geologic repository.

The railroad industry has done significant work in the area of anti-terrorism since 9-11. And, I can spend another 20 or 30 minutes just going over an overview of that. It's a threat driven plan. We are dependent upon intelligence by the U.S. Government. As that intelligence indicates that there is a threat against the rail industry, we crank up to various alert levels. We have four alert levels, 1, 2, 3, and 4. We're at Alert Level 2 and we have been since 9-11. At Level 2, we've got on the order of 54 alerts or alert level actions that we take. When we go all the way to Alert Level 4, we have 113 total actions that the
industry takes.

Next slide? I'll get into Question 2. Next slide? We haven't--I guess the real answer to this question is that we haven't done anything or haven't gotten any information from DOE to help us in the area of best available technology, but all along we have talked about that. What we've done about that on our own is to develop a performance specification for trains used to haul high-level radioactive waste. Now, that has all the cars and the train as a part of the standard. It requires static and dynamic modeling before construction. That takes time. It requires full-scale car characterization on a static level, as well as dynamic level out at our transportation technology center which is what Steve was referring to this morning, our facility out in Pueblo, Colorado. It also has a 100,000 mile evaluation period built into it.

Next slide? The former standard requires a roadworthiness that is over and above what our current--what's called Chapter 11--road-worthiness requirements are. In other words, this car is more road-worthy and it uses things like premium trucks to operate over more severe track than our typical freight equipment and still operate safely. We have electronically controlled pneumatic brakes as part of the standard and right now all trains are equipped with pneumatic brakes. Pneumatic brakes require an air signal to
1 go from the locomotive to the end of the train. That takes
2 time. And, electronic brakes, that goes at the speed of
3 sound. That signal goes at the speed of sound so that all
4 the brakes are applied at the same time. It significantly
5 reduces the stopping distance and the potential for a great
6 crossing accident. Electronic conduits through the train
7 also allows for on-board defect detection.
8
9 Next slide? What is built into the standard,
10 performance standard, is on-board defect detection system.
11 So, the things that we do--some of which we do wayside at the
12 current time like hot box detectors that are spaced, say, 40
13 or more miles apart, we can monitor that bearing in real time
14 on the locomotive. Other things that are built into the
15 standard is to monitor truck hunting so that if a truck is
16 bouncing back and forth between the rails, we can detect that
17 and take action to prevent that from occurring. Wheel flats,
18 something that we can do wayside now, we can monitor on-board
19 and also the braking performance, vertical, longitudinal,
20 lateral acceleration, and (inaudible).
21
22 Next slide? This is a diagram of what we see the
23 dedicated train to look like. This is, I guess, the model
24 that private fuel storage is using. Two locomotives, not
25 necessarily because it's necessary for power, but for
26 redundancy in case you have problems with one. You've got a
27 buffer car. The buffer car is required by regulation. We
feel that the buffer car needs to be of consistent weight
with the other car. In other words, you don't want a late
flat in between two very heavy loaded cars. Then, followed
by cask cars and then another buffer car and a security car
at the end.

Next slide? We've taken some other steps on
enhancing safety in the rail industry. We're up to OT-55-E.
It says D in this, but we're up to Issue E at this point.
OT-55 is our operating practices for the transportation of
large quantities of hazardous materials including spent
nuclear fuel and high-level waste. In OT-55, there are over
and above regulatory requirements on track inspection, defect
monitoring. In other words, there are wayside detectors
spaced more often. There's increased maintenance frequency
on those trains, as well as track and increased employee
training. And, there's a maximum speed limit of 50 miles per
hour for what we call key trains which this would be one of
them. There's also--and I don't plan on talking about it,
but FRA has also developed our safety compliance oversight
plan for high-level radioactive waste and spent nuclear fuel
shipments. I'm sure they can talk about that if you'd like
to hear more about it.

Next slide? We heard this morning about private
fuel storage. They're the first shipper that we've had to
build to our new performance standard. The cask car was
manufactured by Trinity Industry. Again, the overall weight of that cask car combination is 476,000 including impact limiters. The modeling and characterization has been complete and out at our transportation technology center right now they've done the static testing. And, they were in the process of doing the dynamic testing which is the on-track testing, but they're postponed that until they can work out the issues with the State of Utah.

Next slide? This is what the car looks like. One of the key differences in this car compared to another rail car is it's a depressed center span bolster car. So, there's two four axle trucks--or two sets of trucks on each end of the car and that's because of the increased weight of the vehicle. But, it's real. There's been a lot of work done. It's not finished, but it does exist.

Next slide? Now, I'll address the third and fourth questions. Next slide? I guess, so far, most shipments of spent nuclear fuel have gone by dedicated train. That's for a number of reasons. From the DOE standpoint, a lot of times they'll request dedicated trains. The Navy doesn't request dedicated trains, but we give them dedicated trains because that's what we feel should be done. The Yucca Mountain EIS indicated that dedicated trains are not necessarily advantageous and it, I guess, made no conclusion about whether they would ship using dedicated trains or not. So,
that's a key thing that needs to be done in the near future to get the transportation system by rail going.

Next slide? Another issue that the rail industry would like to see at rest is there's a very small chance that a cask would have a release in a transportation incident. We in the rail industry have to plan for that event. And, we would like to get together with DOE. I think we've been assured that there is plenty of resources to bear to deal with that event, but we would like to have a more concrete analysis and discussion with DOE about how that would be handled, how an incident would be handled in case we had to deal with it.

Next slide? The procurement and testing of cars that meet our performance standard takes time. In the Private Fuel Storage Initiative, the modeling and initial submittal took between six months and a year. We estimated that the full-scale testing would take between two and two-and-a-half years. Some of that depends on how many cars that are going to be tested, whether you have to test the cask car or buffer car and a personnel car separately, but it's going to take time. And, whereas, we feel that there's enough time left between now and 2010, there's not a lot of time and we need to get on making those decisions so that we can plan for that.

The other thing and Steve mentioned it this morning
1 again is that we could use some of the experience of private
2 fuel storage. You know, I'm sure that they would be willing
3 to license that car for a price, but again, I mean, we should
4 take advantage of the experience that they've already
5 developed in the transportation of spent nuclear fuel.
6
7 I didn't come addressed to talk about the rail
8 construction, at all. Nobody has asked us about the rail
9 construction. So, we're assuming that DOE is going to
10 contract that out to a contractor to build and ultimately
11 have somebody operate it. But, you know, we're willing to
12 talk to them if they feel like we've got some sort of input
13 into that. I'm sure we'll hear more about that. And, I
14 guess, that's it.
15
16 Next slide? Summary, the rail is a safe--we feel
17 is a safe mode of transportation. There's some advantages of
18 using it. Dedicated trains make sense. There are
19 technological improvements that we're committing to continue
20 to build into the rail network to prevent an event from
21 occurring. And, DOE needs to start making those decisions so
22 that we can get that to happen all by 2010.
23 With that, I'll entertain questions.
24
25 ABKOWITZ: Thank you, Bob. We're going to start with
26 Dave Duquette?
27
28 DUQUETTE: Duquette, Board. Let me qualify my earlier
29 statement. I'm quite familiar because I'm a materials
1 consultant to AMTRAK in the northeast corridor from Boston to 2 Washington and much of the Montreal to New York runs. There 3 have been tremendous problems in the infrastructure in that 4 part of the country and I'm fully aware that CSX does in that 5 part of the country use the same rail systems as AMTRAK. 6 But, I think that there are problems with some of the 7 infrastructure in the country; certainly, in the northeast 8 that I know about.

With that, I would like to go to Slide #3, please? Oh, Slide #3 was the number of derailments per million 11 miles. But, the question I have is how many million railroad 12 miles per year does the freight part of the country do, for 13 example?

FRONCZAK: I don't know the answer to that right now. I 15 mean, I can get that for you. That's a statistic that we 16 maintain at AAR.

DUQUETTE: But, it's in the millions presumably, not in 18 the hundreds--not in the 100,000s?

FRONCZAK: Oh, it's definitely in the millions, if not 20 billions.

DUQUETTE: No, no, but you're suggesting three--maybe 22 it's a couple of slides after that. It's the one that shows 23 the number of derailments per million miles.

FRONCZAK: Yeah, keep going one more, next one.

DUQUETTE: Okay. One more after that.
FRONCZAK: Yeah.

DUQUETTE: Okay. That indicates about three derailments per million miles and I appreciate the fact that it's decreased considerably since 1990 and I applaud that. But, to me, that's still a lot of derailments if you're doing millions of railroad miles per year. I know of, at least, one near Kansas City that occurred two years ago. There was a serious derailment. There was another one in the northeast corridor. The tracks actually buckled because of heat between New York and Washington. So, I think, the infrastructure does have to be looked at. I think your progress in addressing problems and reducing accidents is quite significant. I also want to indicate that I don't necessarily think that a derailment would result in a release of radioactive material. I just want to point out that it's a possibility. Not that the release is a possibility, but a derailment is a possibility.

FRONCZAK: I mean, safety is number one in the rail industry and we want to continue to have that number go down. We'd like to see it zero, you know, and there's cost to safety. I agree that we can be safer and we're trying to be safer.

ABKOWITZ: Okay. We have Bob Luna followed by Priscilla Nelson, Dan Bullen, Thure Cerling, Dan Metlay, and Ron Latanision. Bob?
LUNA: Thanks. Bob Luna, Consultant to the Board. Bob, I was interested in your comments about the PFS rail car. Somebody told me, somebody from the fuel transport industry told me, that they felt it would be possible to buy used equipment and bring it up to the standards for that you require for high-level waste shipments. I was wondering if you could comment on the possibility that that could happen?

FRONCZAK: Well, I think that's a very real possibility. I mean, the key in meeting this new performance standard is going to be equipping it with the electronic pneumatic brakes and those are add-ons that can be accomplished. And, putting the right trucks and spring combination underneath it. Again, I mean, a rail car is a bunch of components. The trucks are separate pieces that you can add to a car very easily. So, that's a reasonable possibility, sure.

LUNA: Okay, thank you.

ABKOWITZ: Priscilla?

NELSON: Nelson, Board. I'm going to ask you about the possible interdependencies and vulnerabilities in the system even with a dedicated train. These days, there's been a lot of sector introspection about SKADA systems and increasing reliance on information and particularly on power systems and power supplies and how the interdependencies develop and cause additional vulnerabilities. This is a whole system perspective. Is there anything special about transport on
trains that will require some additional security or assurance of the availability of the information and power system-wide to insure train throughput? Am I making any sense to you?

FRONCZAK: I'm not sure I understand your question. I mean, one of the major differences--and I think you heard it this morning before I talked--is, you know, rail system is an integrated system. And, like somebody said this morning, I think it might have been Steve--you know, if you have a derailment or a problem in Florida, it could affect trains going up to Chicago. And, there's not as many reroutes available. Reroutes get to be difficult. A reroute is more difficult between carriers because then you have interchanges involved. Reroutes on an individual carrier can be very--add a lot of distance which adds risk. So, there are a lot of interdependencies, but it's nothing that we haven't worked with for years and years. So, I mean, we feel like we have a pretty good handle on it.

NELSON: It's analogous in some respects to the power grid in terms of redundancies and how you build in redundancies and capabilities in the system. But, there's also reliance on information for decision making and on power supplies which may not be internal to your system kind of an issue, but interface with other systems kinds of issues where you're starting to rely more on information, condition
assessments, and if you start losing that because of loss of that kind of an interdependency with other systems, then you could not be where you are fairly quickly. So, I'm wondering are you looking outside your immediate sector for the interdependencies with other sectors in establishing vulnerabilities or considering redundancies?

FRONCZAK: I mean, nothing other than what we're already doing for normal routine rail transportation. You know, one of the things that the rail industry has, we have our own radio frequency. You know, all of our trains operate on that radio frequency. We have a network set up throughout the entire United States that allows us to communicate with all of our trains all the time. Now, there might be some—you know, when you get into having other people on board and having to deal with what a shipper representative on board might want to do versus our normal routine transportation, I think that a lot of those things have been worked through on the shipments that are already being made and are being made today. We just need to make sure that there's a lot of communication there.

NELSON: Okay. Thank you.

ABKOWITZ: Okay. Dr. Bullen has yielded to the delegate from Utah.

CERLING: Cerling, Board. I was just wondering on the issue of---getting back to the infrastructure and security
issues that are special that perhaps need to be done with
respect to the shipment of spent nuclear fuel, I guess, my
question is really who would pay? Would it be just DOE or
would that be taken in by the railroad industry?
FRONCZAK: That's a good question. I figured that
question would come up because you asked it to Steve this
morning and he said I was going to answer it. I don't know
the answer to it. The rail industry goes after business and
will build a rail line if there is enough business there.
Now, you're talking about perhaps 10, 30 carloads of business
to somebody's small, little utility. I would find it hard to
fathom that a railroad would want to sink any money into
improving that line for 10 or 20 carloads of business. Now,
on the other hand, perhaps the line out to Yucca Mountain
where there's going to be maybe 400 shipments, I don't even
know that that would support a case for a railroad company
wanting to build that line, take that kind of investment on
themselves and make that a business case. We have recently
with the City of Chicago--and I don't know how many of you
heard about it--we've undertaken a very significant
public/private partnership and we've proposed over $1 billion
investment in the City of Chicago on improving railroad
infrastructure to make the flow of commerce through Chicago
more efficient. We're asking government to share in that
project. And, how we're trying to divide it is we are asking
1 The government to pay for public benefits and we're willing
2 to pay for private benefits. So, that's a possible scenario.
3 For these shipments, I envision that if you're going to have
4 to invest a significant amount of money in some small rail
5 lines, you're going to have to do a cost benefit that the--
6 you know, the government is going to need to pay for it is my
7 guess and that they're going to need to do a cost benefit.
8 Which is better? Which is cheaper, a heavy haul to the
9 nearest rail spur or some other mode or upgrading that line?
10 That's my opinion.

CERLING: Thank you.
ABKOWITZ: Dan Metlay?
METLAY: Dan Metlay, Board staff. I'm wondering if you
could turn to Slide 15 and the last bullet? I'm wondering if
you could say a little bit more about that last bullet; in
particular, whether there are any implications for this
situation with possible respect to Yucca Mountain?
FRONCZAK: Well, I guess, the private fuel storage, I
guess, they made a decision that they don't want to invest
any more money in a transportation system until they knew
pretty well that the transportation system was going to be
used. The implication here is you have some fairly long-term
items that have to be procured; casks, you know, the cars,
building of the rail line. So, key decisions have to be
made. So, the implication is that you need to make sure that
the key decisions are made so that you're not wasting money
and building infrastructure that you've not going to use.

ABKOWITZ: Ron?

LATANISION: Latanision, Board. Back to Slide 6,
please? This is a followup to Dave Duquette's question. How
would those statistics look if we were talking about European
rail lines?

FRONCZAK: I don't have a comparison with me between
U.S. and European roads, but the best U.S. roads operate as
safe or definitely safer than European roads. And, on
average, we're definitely as safe as European roads. And,
you're comparing apples and oranges in many respects because
you're comparing a primary passenger system in Europe to a
primary freight system in the United States.

LATANISION: No, I appreciate that, but of course,
that's what we're dealing with here in terms of the transport
issue we're concerned about. And so, the question would be
how would the rail lines that are most likely to see high
density of traffic compare even in terms of this--this is a
more normalized average, I suspect.

FRONCZAK: I mean, I have a slide that goes in and
compares U.S. railroad operations to European operations and
I'd be glad to sent that to Mark or whoever, you know, at the
Board and you can take a look at it.

LATANISION: Yeah.
FRONCZAK: But, it's very favorable.

LATANISION: Thank you.

ABKOWITZ: Okay, thank you. I'm going to ask the projectionist to go ahead and take--I'm not done yet with you. Just hang on a second.

FRONCZAK: Oh.

ABKOWITZ: Ask the projectionist to take down this presentation so we can load up John's which apparently will take a few minutes.

Bob, if I were to approach you and said I want to build me a rail spur, could you walk me through the steps that would be required from when I approached you to when the first train would be running and also some reasonable expectation of the time frame associated with those steps?

FRONCZAK: I'm not an expert on building new rail lines and I think somebody else brought it up this morning. Again, we haven't built that many new rail lines. I was involved in one small rail spur construction, but you have to go to the Surface Transportation Board, you have to figure out whether or not you need an Environmental Impact Statement. If you don't need an Environmental Impact Statement, you still need to do—you know, go through a limited environmental evaluation. If you have to do a full blown EIS, I think we have a little bit of experience on what the Yucca Mountain EIS took, you know. That can take a couple years. And then,
you have to get into the actual design of the rail line.
Ultimately, out here I don't know if they've got the property
procured. So, you have to get into procurement of property.
Is there enough time to do it between 2010 and now, I'd say,
yes, but I wouldn't want to wait until 2007, 2008 to start
doing something. Things need to be happening, I think, in
the next year time frame to get the EIS started and that
whole process started. And, I know it's not a detailed
response to your question, but it's as good as I can do.

ABKOWITZ: Okay, thank you.

All right. I do want to make one announcement
here, and also before I do that, to tell Bob that I feel very
badly about your not attending your son's letter awards
ceremony, but as so many things in life are tradeoffs,
including risks, I feel very good that we were able to delay
whatever reason why the dentist needed to see you.

Linda Coultry reminded me to just mention to the
folks that are here that if you're not already on the Nuclear
Waste Technical Review Board's mailing list that there's an
opportunity to do that and all you need to do is share that
information with Linda or drop her a business card or any of
that kind of stuff. We won't spam you with all kinds of
offers and things like that. You'll only be notified when we
have something to share with you as a matter of official
business.
How are we doing? Not doing well? John, I'm going
to ask you to come up here and just do the best you can under
the circumstances.

HAUSER: Without the assistance of the CD-ROM, it's
going to be a little less interesting or colorful.

Initially, from the transportation standpoint,
truck transportation, the carrier I work for, Tri-State Motor
Transit, we've been involved in transporting spent nuclear
fuel since 1964, 40 years. We regularly transport all types
of radioactive material in the complete fuel cycle from UF-6
that goes into manufacturing fuel rods to the spent rods to
repositories. We also are involved in the WIPP Program. At
this time, we are successfully working at that and hope to
renew our contract next time it comes up. It's our
experience through, at least, 40 to 50 years of the safe
transportation of spent nuclear fuel that it is a safe mode
of transportation.

At this time, I've found that there are about 2,000
tons of spent fuel produced in the United States annual. It
has to go somewhere. If the rods have to be moved anywhere,
right now we have complete transportation plans and programs
in place to cover movement to take it anywhere in the United
States. There have been over 3,000 shipments of spent
nuclear fuel transported since 1964 and they have been
transported safely.
With the specialized equipment, as well as extensive training of the drivers and updating of the equipment and support personnel, this adds to the safety to the public. The vehicles have advanced to the point that the trucks are safer every day. When we first started transporting the equipment, you wouldn't believe how it was. But, right now, the trucks are equipped with satellite communication, cellular telephones, we have remote shutdown devices, and continuous monitoring. Now, the satellite monitoring, we can--it's like the GPS and we can pinpoint a truck's location just within a few feet. Any of the designated units that would be involved in the spent fuel program, they can be specially equipped with disabling devices because everyone's fear is can someone steal it? Can they hop in it and drive it away? We can be equipped where a shutdown device can be activated either remotely from our facility or each driver would carry a disabling mechanism. It would be a monument. It could not be moved until we activated it to where it could be moved.

The cost of communication with the drivers is what makes it really safe. Cooperations with the states being aware that the shipments are coming, they can also be set up to where they can monitor the shipment when it's in their state. Making sure that they're aware of what it is and how it's moved seems to be what all the states want to know. You
know, is it coming through my state and what are you going to
do with it if it stops? We can repower, we can move, we can reroute. If there's a problem found, a dangerous situation,
accident or a bridge, we can make a right turn. We can avoid because there's always an alternate route set up by the NRC.
All shipments have weather criteria. If there's bad weather in an area, we can avoid the bad weather or we can secure the
equipment in a safe area.

Right now, with all the extra measures that's been put in place for security and with the escorts and all that's involved, we're not foreseeing any problems as far as security at this time. At any time, we can alter our plans, add additional security or whatever is required. Right now, the new measures that are in place, Tri-State Motor Transit has had them in place since 1953 as far as background checks on drivers and worrying about the safe end of it. It is safe.

We feel that we've been transporting this stuff, I call it, you know, spent nuclear fuel for over 40 years safely without incident. We could transport it anywhere. We could take it to Yucca Mountain. We have alternate routes. We have routes in place right now going in and out of Nevada, to Nevada, through Nevada, transporting other materials. It would not be a problem, at all, for us to put together the needed programs. Our main concern is that we haven't been
able to address is when will truck transportation or any
transportation start? If we can find out when a repository
is going to be open and be able to accept spent fuel, then we
could put a program in place within six months drawing on our
experience with the WIPP project. The objectives we see from
a trucking standpoint is provide safe, cost-efficient
transportation. From some of the figures that we've had, we
could do the whole project for what it costs to build a
railroad.

What works? Well, full public involvement and
cooperation from all agencies. The past campaigns of spent
fuel over the last 40 years, we can apply them to any
shipping campaign. Public forums, let the people know what
is really inside those big gargantuan casks going down the
road and help them understand it. So many people are saying,
well, what is it? What does it do? Why is it in there? I
think if people understood more about what was being
transported and the precautions that's being taken, it would
make Yucca Mountain or any transportation be a lot easier.
Without the help of my public commentator, CD-ROM,
that's about all I have.

ABKOWITZ: Thank you, John. And, I particularly
appreciate your moving us closer to being back on schedule.
We'll start with Dan Bullen?

BULLEN: Bullen, Board. Actually, I want to express my
appreciation for your extemporaneous speech without the use
of visual aids. I think that's a great compliment to you.

But, I do have a couple of questions. You
mentioned that the drivers have the ability to disable the
truck so that it's not movable.

HAUSER: Yes.

BULLEN: What type of specific training do the drivers
have with respect to both the operation of the vehicle and
also the safety that's necessary?

HAUSER: Our driver go through, at least, from 40 to 60
hours additional training as far as spent fuel, radioactive
material. We don't say we have an anti-terrorist training,
but we do have a response training, a situation response
training that we put our drivers through. And, this is
renewed company-wide--our company, we have more stringent
regulations. We try to renew it when something new comes
out. If there's some new item, some new measure, then we
make our drivers aware immediately. We'll sent out a
company-wise message to all the drivers and that's quite a
few that we can send out a message to all of them at once.

Call them out, we have something new. We try to use the
telephone or more secure ways of letting drivers know if
there's anything taking place.

BULLEN: Bullen, Board. Just one other followup then.

That is you mentioned that escorts were provided for the
shipments, particularly post 9-11, but are the escorts provided by your company or are there also additional escorts provided by each state as you go through their jurisdictions?

HAUSER: They are provided by the states. Now, the states are usually compensated. All the states have an interest in providing the escorts, the inspections, the support for their compensation.

BULLEN: Thank you.

ABKOWITZ: Thank you. Dick Parizek?

PARIZEK: Parizek, Board. Could you elaborate on a safe area? I guess, that is in the context of you're driving along and you have to stop for some reason. Do I know what a safe area looks like? I mean, will these trucks be all on the road, typical truck stop, and then can you drive continuously or do you have rests automatically with multiple drivers or tradeoff drivers? How does that work?

HAUSER: Okay. It is a continuous movement, continuous movement. The only time they stop is for meal breaks, fuel breaks. They try to combine them. As far as a safe parking area for the spent nuclear fuel, you'd be familiar with them; State Highway Departments, National Guard Units, Army Reserve Units, military bases, definitely secure areas, not a truck stop parking lot. And, they would be attended at all times by one driver and the escorts.

PARIZEK: That would be different in a breakdown on
route if you were on route and had some truck troubles?

HAUSER: Okay. If we're on route and break down, then we have a response criteria in place. We have a--we call it a maintenance central that we can have a truck repaired within hours or repowered within a reasonable amount of time.

ABKOWITZ: Thank you. Bob Luna?

LUNA: Bob Luna, Board, Consultant. John, could you contrast the relative difficulty in making, for instance, a 200 mile shipment using heavy haul, regular, overweight or regular weight highway shipments? What's the degree of difficulty in those three kinds of shipments?

HAUSER: Okay. The majority of the time that we handle spent nuclear fuel at this time, it's in an LWT and it is shipped as overweight, but with continuous running. When you get into the super heavy haul moving the 150,000 pound containers, you have a lot of highway surveys that have to be done, you have permitting issues with the states, counties, cities, townships. A lot of things have to be addressed. But, as a carrier, we've been involved in that for quite some time. And, to say it's easy, quick, each movement we do as something that's heavy haul is planned the same way with route surveys, security surveys, height, width, safety, and that's--you know, the coordination of it doesn't really involve any more than we do in our day to day.

LUNA: Let's see, a followup. Suppose you were in a
1 state which didn't really want you to do heavy haul. How
2 would that affect the result?
3 HAUSER: If the state wouldn't permit you to move, then
4 without a legal weight cask, you wouldn't move in that state.
5 State cooperation, if the states understood more that
6 there's funding coming to them and helping them and the
7 general public, you know, back to the--what we're really
8 trying to do in making the public aware, I think that would
9 end a lot of the headaches that we have.
10 ABKOWITZ: Abkowitz, Board. I just have one followup
11 question. John, the types of casks that Bob Fronczak was
12 showing us which may require an inter-modal transfer to a
13 truck, I guess, would you classify those as heavy haul or is
14 that a new extraordinary category?
15 HAUSER: That's what we would call super heavy haul.
16 Heavy haul is something that can be permitted and moved
17 without like the route surveys, the weight. Some highways
18 can't support those kind of weights and most states and
19 counties, cities, they'll want an up-front deposit. Yes,
20 you're going to move it and we're going to hold that deposit
21 for five years to make sure that there's no damage down the
22 line.
23 ABKOWITZ: So, super heavy haul would be putting new
24 requirements on the system that we haven't seen to date?
25 HAUSER: That's correct.
Okay, John, thank you very much.

One thing, I can send anyone a copy of one of those CDs. I'll send them the one that we have here.

Yeah, the Board would be interested in a working copy, however.

Okay. We're going to our last topic before we get into public comment period number one and lunch. It's now taking the life cycle experience, if you will, from where the carrier has custody of the product to the destination and the receipt of waste shipments at Yucca Mountain.

That particular interface is going to be talked about by Gary Lanthrum with the U.S. Department of Energy. Gary is currently the Director of the Office of National Transportation Program, formerly the Director of the Environmental Management National Transportation Program in Albuquerque. In his previous capacity, he was responsible for managing all of the EM field transportation programs including nuclear materials packaging, research, shipping, and certification, the operation of the TRANSCOM systems for the WIPP shipping and managing the Automated Transportation Management System for tracking all DOE's nuclear and non-nuclear shipments. Also, he was responsible for the National Transportation Program's national stakeholder outreach program. And, apparently, he actually got some sleep somewhere in there.
Gary is going to actually speak with us twice today. His first talk, as I mentioned, would be on the interface. And, I also wanted to point out that Gary is known to the Board under several aliases including Greg and Sam.

Gary?

LANTHRUM: I don't know if it was my eyes or not, but when I was sitting back there, I thought the focus could be tweaked a little bit on the projector. Is that--actually, it looks better here. Maybe it is my eyes. Let's see, is it any less yellow that way? Actually, I think it's the projector there because on the screen here, it's very white. So, maybe it's just getting really tired. Maybe one of the color lamps in there, the blue or something, has given up the ghost.

While we're doing setup stuff, normally I try and introduce whatever presentation I have with a little bit of humor, but I've been working so much, I've kind of lost my sense of humor. I will say that the discussions that have gone on yesterday and to some extent today about a holistic approach to doing the transportation activities is important. And, it's a little disconcerting because the interface with Yucca Mountain is just one small piece of my overall approach to transportation planning and it's a little awkward to do this out of context of the presentation I'll give this
afternoon. So, some of the questions that are inevitably
going to be asked, I think will be answered more fully when I
do the fuller presentation about the overall planning and the
state of our activities later today.

This first slide though shows that there are three
projects that are involved in the OCRWM planning process.
The three projects are as much an artifact of the budgeting
cycle and the planning cycle for funding as anything. The
three projects are basically the development of the
repository itself. There's a repository project. There is a
Nevada transportation project that would be responsible for
establishing whatever infrastructure is necessary to do
transportation in Nevada, whether it's heavy haul truck or
rail or if it's just legal weight truck, it would use
primarily existing infrastructure. Then, there's a national
transportation project where we look at the requirements
nationwide, what we need in terms of the cask fleet, the
rolling stock, and other capabilities.

The next slide actually talks about those three
projects and how they relate to each other and expands a
little bit by adding an area of the planning that is not
within transportation. There's been a lot of talk about
interfacing with the utilities and how we develop that part
of our interface. Utilities are one of our stakeholders
certainly in developing the transportation system and making
sure that whatever we have in the way of transportation
capability mates well with their facility capabilities with
the ingress and egress options into their sites.

There's a lot of decisions that had to get made
within OCRWM itself, but that interface is not my direct
responsibility. And, it's largely because of the sensitivity
over the lawsuits, but there is a systems group within OCRWM
that does that interface primarily. They will be the ones
that are responsible for developing the delivery commitment
schedules. I believe, they are working on letters to the
utilities to update the long-term delivery commitment
schedule discussions with the utilities that have signed
contracts. They will also be the ones that will be working
on the final delivery schedules as we get much closer to
actually making shipments. They are the group that does the
interface primarily on the discussion that was held about the
oldest fuel first, what does that mean, and the fact that
utilities themselves have the capability if they have the
oldest fuel that's essentially just a placeholder for line.
It's a chit to get into the queue. They can use that chit
any way they want once they have it. Once they know where
they are in the queue, they can use that to ship other fuel
other than the oldest. They can trade it with other
utilities within that corporate entity or with other
corporate entities entirely. So, there's a lot of
1 flexibility. And, it's a different group within OCRWM that
does that interface.

That said, we do have an interest in the
transportation side of the house on a small part of that
interface and the primary part we're interested in is the
facility capabilities at the shipping sites. And, I think
somebody mentioned earlier--I don't know who comes up with
these acronyms--but the NSTI, it was the Near Site
Transportation Infrastructure is the way it gets abbreviated.
That was done 10 years ago. We are looking at an update to
that transportation infrastructure report. We led a contract
about a month ago to do a paper review of what was done 10
years ago and now that paper review looks at a wide spectrum
of infrastructure assets. It looks at the ones that would be
most critical to our needs and then from that effort, we will
have some kind of a communication, whether it's from the
transportation group or the strategy group that actually asks
utilities whether or not what was reported 10 years ago is
still what they have in place or have things changed and
start talking about what changes might have taken place that
we need to be aware of. So, that part is going on.

Transportation is in the middle and at the other
side is the repository work on the surface facilities. And,
the primary interface there is on the cask receiving and on
the fuel and canister handling capabilities. There are a lot
of questions that are tied to both the decision on actual
mode that we'll be using that will affect both the folks on
the front end and the back end of this process and what
actual content gets shipped because the content is going to
drive to some extent the casks that are selected and may have
some bearing on the mode of transport. And, we are working
on those interface points. We're at a pretty early stage of
that planning and that's probably a good segue into the next
slide.

There are waste integration meetings that go on on
a biweekly basis between both the waste acceptance group at
headquarters and the repository and the transportation group
both at headquarters and in Nevada.

There are integrated project teams for all of our
acquisition activities. We have formed the Integrated
Project Team for our cask and rolling stock acquisition
efforts and that includes representation from both the
repository, from multiple other groups within the Department
of Energy, and--in fact, I'll go into that a little bit
later. Let me just go through the rest of these.

There are internal interface meetings that are
held. We had our first one between transportation and the
repository surface facility folks a month ago. We've
tentatively got one scheduled for 9 February, at least, that
week for a second meeting. And, again, things are fairly
early in planning stages both for transportation and for the
detailed handling discussions at the surface facilities at
the repository. But, we are starting early, and as they make
small steps forward, we are aware of what changes they make.
The discussion took place yesterday about the fact that
they've gone from initially looking at using rail to move
items from facility to facility to wheeled vehicles and back
to rail again. And, we're dialed into those discussions and
how they may have an impact on what we develop for a
transportation infrastructure within the state as a whole and
nationally. This indicates the one we had back in December.

There's also the Fleet Management Facility. Ian
talked about the capability that COGEMA has and a fairly
significant facility that he showed a slide picture of that
had a capability of pushing through about 150 casks a year
from maintenance. And, there's a lot of routine required
maintenance. We will have routine required maintenance
probably both for rolling stock and for casks.

We are in the initial planning stages for looking
at what the facility capabilities and requirements would be.
We've done a couple of studies about facility location.
Should it be near the site, should it be on the site within
the grower/GROWA (phonetic) boundaries, should it be outside
of the GROWA, but within the LAM (phonetic) withdrawal area,
could it be outside the LAM withdrawal area? The answer to
that question is, yes, it could be anywhere. You could locate for a national network. You could, in fact, contract that capability out and use a service facility somewhere in the midwest if that was our decision. We are collecting data that will feed a policy process for making the determinations. But, as part of that, we're talking about if we did locate the facility close to the repository, are there capabilities that the facility might have that would be of use to the repository? And, if it were close to the repository, are there capabilities as far as infrastructure like power, water, other things that the repository might have that the facility could benefit from? All those discussions are going on. It's very fluid right now and I suspect that we are some distance away from making any formal decisions, but the process is engaged.

Then, there are weekly management review meetings. Every Monday afternoon, the office directors for the strategy group that does the interface with the utilities for John Arthur's organization that does the Yucca Mountain Project and for transportation along with the deputy, Ted Garish, in Washington and with Margaret Chu. Those take place every Monday afternoon. So, there's a fairly high level degree of discussions that are going on, as well as some detailed discussions. The detailed discussions haven't gotten into a lot of nitty-gritty yet because there's a lot
of detailed decisions that haven't been made. The groups are
together though. The construct is there to make sure that
the right people are in place to have detailed discussions as
decisions are made and that's encouraging.

My first discussion with the Board back in
September, I had been on the payroll with OCRWM for less than
a month and I think what I indicated to you was that I was
really green and that my first order of business was to learn
what the full scope of work was, to identify ways of managing
that scope of work in a coherent and inclusive fashion, and
then to build an organization around some of the decisions
that would be affected by that. I've done a lot of that and
we'll talk a little bit more. What I've moved out in is
creating a series of projects that will help develop the
infrastructure that we need.

And, transportation is kind of fun because for a
long time it was involved primarily in studies. We're
transitioning from doing a lot of background studies to
actually building an infrastructure and making the decisions
that will enable that infrastructure to get built. And, some
time further down the road, we will transition again from
building infrastructure to actual operations. Each of those
periods of time in the transportation system require
different skills sets and different approaches. The
management approach of organizing around projects is very
useful for this development of the infrastructure stage.
We'll get beyond that.

But, the DOE Order 413.3-1 is the order that basically guides project management within the Department and it has a very strict level or set of requirements for making sure that you are inclusive in your decision making and that you have significant review from all the affected parties and that is what drove, as much as anything, the development of our integrated project teams for the cask acquisition.

The Integrated Project Team membership includes representatives from the business and technical disciplines. We've got legal, financial, contracting, safety, environmental and health, and other groups. So, again, the approach that we are attempting is to be inclusive and holistic, as was indicated earlier.

The project team members for our cask acquisition project include folks from RW-30, the transportation group. Thank goodness, it's our responsibility, you would expect us to be involved. EM is involved, the environmental management program. They are the group within DOE that's done a number of--one of the groups that's done a number of spent fuel shipments up to date and has a significant experience in both the institutional relations aspects and in acquiring the basic infrastructure both in terms of transportation service providers and in terms of casks. EH, we've got them involved
1 to make sure that we are addressing the NEPA policy and
2 compliance issues appropriately. We've got Yucca Mountain
3 Project. So, the surface facility people have a play in our
4 acquisition and understand the acquisition approach that we
5 are taking and have some assurance that what we acquire will
6 be able to interface effectively with their surface
7 facilities. We've got Naval Reactors involvement, again
8 another group within DOE that has significant experience in
9 acquiring both the infrastructure and in conducting
10 operations for moving spent fuel. We've got the Nevada Rail
11 Project specifically involved in case a decision is
12 ultimately made that we will be doing shipments by mostly
13 rail. And, ME; ME is the organization within DOE that
14 actually has responsibility for this DOE Order 413.3 on
15 project management. And, finally, we've got General Counsel
16 involved because as much as tech weenies like myself, I'd
17 like to think that we are unconstrained in developing
18 infrastructure. There are a lot of legal considerations that
19 have to be taken into account as we move forward.
20 The items of primary interface with the repository,
21 the first one is the cask system envelopes; how the content
22 is going to be managed, how they're going to be loaded,
23 unloaded, what are the actual dimensions of the casks, what
24 are the lifting lug configurations. One of the discussions
25 that we had in our first meeting with the surface facility
group at Yucca Mountain was the concept. Since there will be a range of cask sizes to handle the different contents that we need to ship, the use of something like a shipping skid that would be what the repository would actually use to handle. So, one set of lifting mechanisms and interface could be used for a variety of casks. And then, I would be responsible for how to attach the cask to the skid. Again, it's a concept that hasn't been fully developed, but it's one way that we could address of having more uniform handling equipment in the surface facilities despite the fact that we would have a range of casks that would be used. That gets to the cask and vehicle handling interfaces.

The shipper/receiver facility operating requirements, the facility requirements, again I've mentioned that the near-site transportation infrastructure study is being revisited. We will do our paper analysis and extract from that the elements that we think will be more critical in updating actual utility information, and after we have that initial paper review, we'll be looking more broadly and hopefully interfacing directly with the utilities. But, we're doing the same thing with the repository and looking at what their surface facility capabilities would be. And, if there are decisions that we can make early-on in the design process that would help either them or us, we're both willing to move a little bit one way or the other to accommodate an
There will be a significant Nevada transportation interface with the repository regardless of what decisions are made on mode. If we wind up making a decision for using mostly rail, there will be a significant interface of how the rail line comes into the repository. Yesterday, you heard that for the movements between surface facilities, they've gone back to a rail system. There's been talk about whether the gauge of that rail system would be the same as the gauge of the cars coming into the site or not. If it's not, there has to be a combination of both for the goods coming in for the transfer point and then making sure that there's capability of an effective interface where you do change the gauge.

The FMP, again that's our Fleet Maintenance Facility, and it's not just the cask maintenance facility which is what Ian focused on, but also whatever rolling stock we have, we would anticipate receiving some maintenance there. If we wind up having mostly rail as our transportation mode, there would be some routine maintenance that we would perform. If it were more complex maintenance or repairs to rolling stock for rail, we would probably contract that out to a specialty outfit that does deal primarily with rail rolling stock. But, there's a significant amount of routine maintenance that would have to
be performed. I expect looking at the scope of the number of shipments that we have that we will have a fairly robust inventory both of rolling stock and casks. So, the capability of this facility is going to have to be robust to match it.

Canister interfaces, both for commercial and DOE spent fuel and high-level waste, another interface area. The waste characterization data, that applies to both the certification of the casks that we would use, as well as to the operating constraints within the facilities.

And, that pretty much covers the interface points that we're looking at. I think some questions again, as I indicated, that are likely to come up may be addressed better as I go through the broader picture of the transportation planning and how this interface piece fits into the bigger picture of the projectized approach to building the infrastructure that we've undertaken. But, I'm ready for questions on this part of it right now.

ABKOWITZ: Okay. Let me ask the first question, if I could. The IPT is an internal stakeholder group, is that correct?

LANTHRUM: That's correct. It's the group that helps frame our project management decisions internally and make sure that we consider all of the internal requirements.

That's correct.
ABKOWITZ: Is there any external representation that you would seek out or is that at a later stage in this?

LANTHRUM: There's a lot of external representation that we'll be seeking out. Again, this Integrated Project Team is to guide our cask acquisition process. I think again Ian reflected that we've already sent out a notice in Fed Biz that we are starting our cask acquisition approach and what we've asked is all the viable cask vendors to come in and talk to us about whether they have suggestions how we might approach the acquisition of the assets that we will need, if they've got some ideas about innovative design approaches that might make the operations be more efficient. So, that's one phase of it. In the past, the Office of Civilian Radioactive Waste and EM have partnered in a group called TEC. I think that was referenced with Bob Fronczak and possibly John as members of this Transportation External Coordinators working group. Some time this spring, we will have another TEC meeting and that's a great opportunity for other industry groups to interface with us. We have started our interactions with the state regional groups and talking about a range of transportation issues. Their primary interest has been on the package performance study rather than on the acquisition process, but those comments are being incorporated. But, we do have a fairly inclusive program and I'll talk about that on our institutional project later this
ABKOWITZ: Okay, thank you. Dan Bullen?

BULLEN: Bullen, Board. Just a couple of quick questions. You mentioned the update of the report on the infrastructure near the nuclear utilities that you have to access.

LANTHRUM: Right.

BULLEN: It starts as a paper study and is going to expand into, I guess, identification of--actually walking the facilities, taking a look at the track, identifying what needs to be done. Can you tell me the time frame that that might be completed?

LANTHRUM: Well, I didn't say we were going to be actually visiting the facilities because I'm not sure what the allowances are going to be. There will be communication with facilities. The first output of the paper review will be--the initial near-site transportation infrastructure included a lot of things that may not be critical. What we're trying to do is to focus down on the critical elements that will affect our transportation planning, particularly for cask acquisition, for operations planning in the long-range. We'll pull that portion out, package it in some context, and I anticipate right now that the next step would be to provide that information to the utilities and say this is what we've got from 10 years ago. Is it still accurate or
have things changed? For the utilities that answer back and say it's still accurate, we're pretty good to go. For the ones that say things have changed, there will be another phase where we will have to deal perhaps on a case-by-case basis what the next step would be to update the information appropriately.

Long before we actually make shipments, there will be utility visits. We're way early in the process right now and I would suspect between now and 2010 when we hope to start shipments that there would be additional changes. So, this review will not be the last of things. There will be site visits before shipments are made. There will be an awful lot of interaction with the utilities over the specific casks they'll be using, to make sure they've got the capability of loading them there. We'll be talking to them about staging areas. Will they be able to load multiple casks at a time? There will be significant interface before shipments actually start.

BULLEN: Bullen, Board. Just a followup to that question. I guess, my concern deals with the fact that we heard this morning that right at the site gate is where DOE has responsibilities to be able to get the things there. And so, I was wondering you're trying to get your arms around how big the challenge might be and that includes, you know, maybe the infrastructure is already there and hasn't been changed,
but maybe it has. So, do you have any idea what kind of lead
time you're going to need to be able to accept or start
shipping in 2010 to start making the infrastructure
improvements that may be necessary or is that just a little
too premature?

LANTHRUM: I think it's premature. The type and scope
of those upgrades is going to vary from site to site.
There's been some discussion about the decision, as Ian
indicated, in France. They did the study of running a 20
mile rail spur actually into the La Hague facility. They
determined that with the time value of money and other
considerations that it made more sense to do heavy haul. So,
there may be sites that had rail access at one time that may
not have it now and the decision may be made to not provide
rail access. On the flip side, the decision may be for some
specific sites, particularly sites that have multiple
reactors at them where there's a significant flow of
business, maybe it would be worthwhile developing rail. So,
it's going to be an interactive process and it's going to be
on a case basis. Some sites may have various simple upgrade
requirements or none at all and those could be done very
close to the time that shipments would take place. Other
sites that have more significant upgrades or challenges would
take longer. That will be part of an overall operational
planning process where you deal with trying to marry the
sites and the corporate entities that own these chits for when stuff gets shipped. Marrying those places in line with the facility requirements to support those shipments will be an ongoing process. And, I think that may actually get back into the possibility of this contract renegotiation. If a site has a priority and wants to ship something that the infrastructure doesn't exist for and would be difficult to develop, there may be some ongoing discussions and negotiation about how that contract would be revised to reflect reality.

BULLEN: Thank you.

ABKOWITZ: Bob Luna?

LUNA: Bob Luna, Board, Consultant. Gary, I have two questions. One is there's been a lot of talk about Fleet Maintenance Facility and I can remember since I'm one of the gray-haired people in the room, I guess, that there was a lot of time and money spent in the late '80s and early '90s on fleet maintenance facilities and how to design them, where they should be, etcetera. I was wondering if you've been mining those studies as preliminary to the work that you guys have been doing?

LANTHRUM: Absolutely. In fact, the report that's been done on siting options tapped heavily into the work that had been done in the past. And, we will tap in--those reports were just on siting options. The capability options study
also is tapping into work that's been done in the past, informed by the conditions of things currently. One of the things that has moved significantly from the previous reports is the more advanced development of the concepts for the surface facilities at the repository. That feeds into the decision and that was not significantly part of what was done before.

LUNA: A followon. I was interested in your comments on cask handling at the facility and the discussion of having a skid so that you could handle various casks. The question that immediately leapt to mind was as the guys who are going to be specifying what the casks look like, how big they are, how much they can hold, it seems to me that you ought to be able to specify sort of a universal handling arrangement for the casks so you don't need a skid at the repository so you get a uniform activity. I think that that's what the Transnuclear--the people who run La Hague required when they built the reprocessing facility there. They'd accept any cask as long as it fit in this hole and had these handling capabilities. It seems to me that since you're not going to be using or may not be using a commercial cask that you ought to be able to do that as the driver in this bus.

LANTHRUM: The discussions are ongoing. No final decisions have been made. The current consideration of using a skid is something that was brought up by the repository,
not by the transportation group. And, we're trying to accommodate our customers in the transportation arena. And, if a skid is something that fits into their thought of the flow of work in the repository, whether it would only be used to offload from whatever the transportation conveyance was, then they would have something more uniform after that.

That's going to be part of the ongoing discussion. If we didn't have to have an additional component in the system, that would make me happy. But, if an additional component in the system serves the customer better, then I'm also willing to consider that.

ABKOWITZ: Okay. Thank you, Gary. Just as a reminder, he will be appearing for an encore performance later on this afternoon and we can continue this discussion.

We are going to have a brief public comment period before we break for lunch.

We have three people who are scheduled to make those comments at this point in time. We will start--four, we now are up to four. I apologize if I butcher your names. We're going to start with Gracian Uhalde and then Sally Devlin, Bill Vasconi, and Joe Fallini. In the interest of time, I'd like to ask each of the public commenters to limit their comments to no more than five minutes. In making your comments, if you would approach the podium and use the podium microphone, that would be appreciated.
UHALDE: Good morning. I'm Gracian Uhalde and I'm very happy to--until about a week or 10 days ago, I didn't even know there was a Board like this out here. To give you a little background, I'm a third generation rancher in White Pine, Nye, and Lincoln Counties with a fourth generation. I have four sons, two of which are home now and two that are still in college. I don't know how you say it. I have an extensive background with DOE and their predecessors, the Atomic Energy Commission. I'm a survivor of what they termed in those days, which we didn't know until they released the information, 40 off-site surveillance families. I've seen it snow dirt at the ranch in July or when they had the Sudan test. Some of the results of what I've seen and what our family has gone through over the years and it's hard to keep emotion out of it is I've had a tumor myself. My sister had an unrecognizable brain tumor. The doctors in San Francisco sent it off. I had a neighbor friend, he lived 12 miles away, that died at a very young age at either nine or 12 from leukemia. So, I think my background with DOE probably--well, let's put it this way, I've had enough of them.

Okay. As one of 40 surveillance families, we weren't told about everything in the beginning. It was all classified. That went on for many years and then finally it was opened up. Like I say, I've seen it snow dirt at the ranch. I really question anything they say. Let's just cut
1 to the chase. My main point to you people is I'm going to put a heavier burden on you. There are people's lives out here that are depending on everything you do and say. I don't think that politically--you people need to ask the tough questions and don't just fall for the politically correct answers. I mean, you've got to take the ball. You've got the ball and you've got to take it and make it happen right. And, I really do appreciate the fact that you're here.

Just to give you an example of one of these things, the original geologic requirements for a repository was that it had to be 90 percent geological barrier. Now, supposedly, that's been changed to six to eight requirements listing yesterday or what I heard yesterday were manmade. Well, Yucca Mountain hasn't changed. I think the only thing that's changed is the definition of safe. Maybe I'm wrong, but I think we're seeing a lot of weasel words and things changing--the rules are changing as the game goes on.

To give you an example of prime DOE, when they made the request from the BLM to withdraw acreages, they said they needed 308,000 acres. But, in the withdrawal itself, they grabbed 641,000 acres. Maybe that's for study purposes or whatever, but they're not--they're already starting out not doing what they say they're going to do. And, this is just the beginning. And, I think it's up to you people to ask the
1 tough questions all the way through and get the right
2 answers. DOE and their predecessors have created
3 Frankenstein and now they want to bring the son of
4 Frankenstein home. It's that simple. That's the bottom
5 line.
6 And, I hope to comment later. I've got many
7 million thoughts running around in my head today that I can't
8 get them all out. But, I'd like to comment later this
9 afternoon, too. But, I'd just like to give you that thought,
10 and believe me, the burden is on you.
11 Thank you very much.
12 ABKOWITZ: Thank you. Sally Devlin?
13 DEVLIN: Good morning again and again welcome to Nevada.
14 I just want to say Linda said we might have the meeting next
15 year at this time in Pahrump and I will only suggest
16 something to you, gentlemen and lady, and I notice that
17 everybody is in the uniform. If you come to Pahrump in the
18 uniform, they will think you are INS or IRS and they will
19 shoot you. So, please, always be comfortable when you come
20 to Pahrump, Amargosa, or Beatty. That is our object and we
21 are very informal and we'll have a lot of fun for you.
22 The other thing I did want to embellish before I do
23 this afternoon's presentation is something--you know, I'm a
24 toastmaster and very proud of it. And, the problem I hear on
25 occasion and I haven't scolded you for a long time is your
1 tenses when I hear when Yucca Mountain is, not if, might, and
2 all those things. So, please, be a little conscious for
3 those of us who are not very happy about Yucca Mountain
4 because it is personally offensive. It is not a done deal.
5 I hope it will never be a done deal and I think alternatives
6 are what are needed and we will talk about it. So, please,
7 be a little bit sensitive about your language.

8 Now, the third thing, of course is fun. And, I do
9 want you to know why I asked John Arthur for $25 million for
10 a hospital. Nye County is considered one of--there's 17
11 counties in Nevada. There are only two counties with over
12 400,000. That is Washaw County and that is Las Vegas.
13 That's Clark County. The other counties, Douglas and so on
14 and so forth, they have less than 100,000. And, all the laws
15 were set up for Reno actually when I lived there in the '60s
16 and '70s. But, the most important thing is that now the
17 state is totally dominated by Las Vegas. And, of course,
18 Pahrump and Nye County are very much of a bedroom community.
19 We have over 40,000 living there. I don't say they're
20 permanent residents with our escapees and so on. But,
21 anyway, the rest of the country--and it is escapee. And, the
22 rest of the county, our county seat is 200 miles away in
23 Tonopah with less than 2,000. And, of course, Beatty and
24 Amargosa, Amargosa is growing along with the 15,000 cows that
25 are there. So, lots of stuff that you'll read in my funny
1 But, what is most important is every year I do for
2 the State of Nevada what they call the Seer (phonetic)
3 Report. And, it's sent to me by--oh, it's very thick--from
4 the National Cancer Institute. And, I do it for the state
5 just so they will know what the cancer rate is in Nevada. Of
6 course, it's all fallacious because we never had a health
7 department, we never had any of this stuff. Maybe some
8 girlfriend is in the room collecting data because I have no
9 idea and I've asked them where did you get the data. But,
10 anyway, included in that were the Valid leukemias.
11
12 But, what was kind of fun about it when I do my
13 inimicable letter to the state is that we in the cow
14 counties--and we are a cow county, all 18,300 square miles,
15 Mineral, Esmerelda, Inyo who we protect, that's California,
16 Mineral, Eureka, and of course, White Pine--we're very
17 sparsely populated. We do not have coroners. Did you hear
18 the magic word? And so, when you die, the sheriff comes out
19 and he is the deputy coroner. And, my husband died 11 years
20 ago of cancer. And, when the sheriff came out and took his
21 driver's license and his pills, the death certificate said he
22 died of coronary heart failure. So, everybody in the rules
23 dies of coronary heart failure because there are no medical
24 facilities and because there aren't any medical facilities,
25 there aren't any coroners. So, now, you know how things work
and it's kind of funny. Everybody dies of coronary heart failure. So, we do not have any reporting. And, there are lots of people. And, it is a major problem. I'm not even talking about serious epidemics or pandemics or all that stuff that might happen. I am talking about what the physical processes are.

So, I do want you to have a laugh on that that our deputy coroners are sheriffs or the coroners. And, of course, we have then the FBI in because of the voter scams because everybody that died, they vote and you vote the graveyard in Nye County. What else can you do for fun?

With that, thank you.

ABKOWITZ: Thank you, Sally. Bill?

VASCONI: Good morning. Bill Vasconi, a resident here in southern Nevada. I wasn't going to speak this morning. I was just going to play it like a campfire. I was going to sit back and keep warm and listen without getting my feet in the fire. But, I may not be here this afternoon. So, I thought I'd just say a couple things.

I've been in Nevada for 40 years and 17 of those was at the Nevada Test Site. I started out there as a radiological technician monitor and went into NRDS which is Nuclear Rocket Development Station. And then, the last 10 years was a general foreman during that period of time when we was testing our nuclear weapons. As most of you know,
there were 928 nuclear devices that were detonated at the
Nevada Test Site. 820 of them were underground. So, we have
quite a number of repositories out there at the present time.

I served several years as chair of Nevadans for
Nuclear Safety and Benefits, safety being our primary goal
and, yes, equity issues, benefits for the citizens of Nevada
are also up on the list. I am a small business owner here in
the Valley. I do appreciate the Nuclear Waste technical
Review Board for holding their meeting here in Las Vegas.

I've had an opportunity to tour Prairie Island on several
occasions and Monticello and I've taken some folks back there
with me thanks to the efforts of some folks here in the
Valley to get those tours on. So, I do have a good knowledge
of how those plants work and I viewed your storage areas. I
haven't toured the WIPP Project as of this time, but I hope
to in the future and I've read and heard a lot of good things
about their transportation efforts and their outreach
programs in training first responders.

I do support the DOE's announcement of the Caliente
corridor. DOE has their work cut out for them. It's a
tremendous endeavor, but the route does keep the high-level
and spent fuel shipments out of Nevada's major population
centers of Las Vegas and Reno. Reason, resolve, research.
We need to see this policy through to a sound safe resolve of
this nation's nuclear issues.
In conclusion, I appreciate your continued involvement as you play an important role in validating and protecting our health and safety. When it comes to health and safety, that's something we can all support and agree upon.

Thank you.

ABKOWITZ: Thank you, Bill. Our final speaker is Joe Fallini.

FALLINI: Good morning. My name is Joe Fallini. I'm part-owner of the Twin Springs Ranch which is a family operation. It's in its fifth generation now. Our ranch started out in the 1860's and we're some of those downwinders and guinea pigs and whatever they wanted to do to us.

The first thing I'd like to bring your attention to, when the atmospheric bombs were going off, I was developing pictures at that time as a kid. All of my film was destroyed by the radiation. I tried to get pictures of the bombs and we couldn't. We had a school there at the ranch and some AEC people came up. They had a doctor with them and I presented him with this problem. And, he says, well, here's what you have to do. I explained what happened and he says, well, he says, have you got any lead around here? Well, we had quite a bit of lead around the place because we poured bearings and stuff with it for the windmills and stuff. He says you take a put a lead layer in
the bottom of your deep freeze. You put your camera in it, you put lead around it, you put lead on top of it, and you don't dare open up that up until your geiger counter is down where it won't wreck your film.

So, I've probably got the only true pictures that I know of of what a fallout cloud looks like coming over the ranch. I'm going to pass these out to you people and you can pass them around and you can see it looks pretty damn devastating which it was because the members of my family had a cousin that died. They had another cousin that had cancer all over her lips and stuff. She's still dealing with that. And, our neighbors, all their hair fell out, one of the ladies. And, typical, you know the leukemia, the cancer story, and things of that nature. I would like to make one comment. Probably, the reason Gracian and I are here is because our parents made us stay inside when the radioactive cloud was out. I think that's probably the only reason I'm here at this time.

I'd like to start these pictures around and then I'll go from there.

(Pause.)

FALLINI: Another thing that I'd like to tell you about, we didn't know anything about it. I was surprised this morning to find out that DOE had went to everybody and found out all the problems. And, everything was taken care of in
an impact statement. There was 21 hearings. We never got
invited to any one of them. We didn't get an invite through
any other source. We have a ranch of 363,000 acres. And,
they're wanting--made a proposal withdrawal which was in the
Federal Register on December 29th, 1903. We obtained that
Federal Register and started plotting on it what was actually
happening to us. Well, sure enough, you know, they told us
there's 308,000 acres. Well, I plotted this out and there's
641,000 acres. Now, that is kind of bad, I think, to start
off and tell people one thing and then turn around and have
it just exactly opposite.

This is a copy of my ranch which I'll turn around.
You'll see the railroad that's going through it. They said
it's a mile wide. If you look at it in places it's five
miles on the withdrawal. I don't know why we was never
notified of this. Now, it comes back to the same old story.
You know, they'll tell you one thing and something else is
being done.

Another thing that I'd like to relate to is when we
was in the atmospheric shocks, they came out there. We had a
school there. My father was there. And, when they came out,
well, one of the doctors came out and the one that got us
aside and told us about the radiation on the film, he says
you guys better get a geiger counter. Well, we got a geiger
counter and the atmospheric shocks continued. They continued
and we went out and they had some people out there checking it and my father goes out and he says it's pretty high in radiation today, isn't it? Oh, no, we don't have any radiation. My father said, well, let's check your counter against my counter. So, he went and checked counters and, all of sudden, yeah, we did have radiation. You couldn't even turn the damn thing on on the third scale. It would just come up and peg. So, now, I guess, we got told another story. There wasn't any radiation, but there sure as hell was.

And then, we found out later they was going through the country looking all over the country and they was running up and down the roads and everything and we asked them what they was doing. Well, we're trying to find plutonium pellets. Did you people know that the first dirty bomb was made by the AEC when they clad their atomic weapon in plutonium pellets, set it off, and we're up probably right east of Tonopah, and they was going around trying to find these plutonium pellets. Now, that's another story. Okay. So, we ended up with a dirty bomb. Anybody think, well, the United States wouldn't cause a dirty bomb, would they? Well, there is goes, you know.

Then here, right down the line, you know, they keep telling us this and then everything is different. We had a radiation monitor set up at our ranch. It had a scale on it
1 with a chart. And, that chart--you remember Chernobyl.
2 Well, I went out and I noticed--I don't know whether it was
3 one or two days later, I seen a spike on the monitor. And,
4 one of the guys come in and I says what's this spike? And,
5 he says, oh, it's Chernobyl. Well, we learned later it
6 wasn't Chernobyl, at all. It was venting the tunnel right up
7 here at the test site.
8      Now, all these things just keep coming down and
9 keep coming down on us. They tell us about--oh, boy, you
10 people, they tell you one thing and give you just exactly the
11 opposite. I'm getting kind of tired of it myself. I'm going
12 to pass this map around and I'll show you the mile wide
13 route. Here's the Federal Register paper. You can check
14 with it if you want and see what we plotted on our ranch.
15      (Pause.)
16 FALLINI: The one thing that I would like to tell the
17 DOE, the Atomic Energy Commission at one time, the AEC, and
18 that was changed in 1977, my personal opinion, the reason it
19 was changed was to get rid of the agency so there couldn't be
20 any repercussions on lawsuits and stuff. Then, it was
21 changed to the DOE. So, all these things just keep coming
22 down and coming down and here I thought, well, they haven't
23 even picked out a method of transportation. And, they said,
24 oh, it could be trucks, it could be rail. Well, after today,
25 it looks pretty much like rail to me. When they said they
haven't chosen the route, it looks pretty much like the route has been chosen to me because I don't see any other Federal Register notices that shows anything, but the Caliente corridor.

If we go back and we start looking at the cost of this thing, it's approximately just using the DOE's figures, it's around $300,000 a mile to put a railroad in. Well, this struck me kind of funny, too, because, you know, then why are we going to take that railroad and give the radiation a trip around the country? It doesn't give a damn if it's run around the country. It can't see. Now, here we go to our route that goes through the middle of our ranch. It's 308 miles long. Okay. You can go down through the Chalk Mountain one and it's 100 miles shorter. Well, 100 miles times $300,000 is quite a bit. If you look at these routes below Las Vegas on the other side which doesn't come through Las Vegas, there's 113 miles and 199 miles. Now, common sense would tell me if this stuff was that bad, you'd want to get it there the shortest way possible.

Another thing that I can't understand, how come when we go through Nevada, they tell you one mile and you look at the corridors of the railroads all over the United States--well, what I'm saying if they need a mile here, we damn well need a mile all the way across the United States from every one of these places where they're talking live
radioactive waste and the spent fuel rods. Why should we just be a mile wide and every place else--I believe some of them are only 45 foot or so. We seen some pictures this morning where they had a railroad with a chain link fence on it and that didn't look like a mile wide. Why are we being punished for that?

Then, another thing that we've done, we looked at that map. There hasn't been one penny put into our ranch by the Bureau of Land Management. We put in over $1 million worth of water improvements. This railroad goes right over the top of a whole bunch of them. I don't know. We gather cattle with a helicopter. I'm a helicopter pilot and I'm sure there will be restrictions on over the railroad and they're going to put this railroad through. I'm sure it's going to be fenced. My cattle are going to be fenced off of water on one side and maybe right over the top of the source of the water or the end of the water developments.

Now, if they was talking about mitigation, it looks like they would have came to us and asked us, but, no, they did not do that. We had to read it in the paper. Now, if they're doing your job, DOE, to come out and notify everybody that this is going on and you want to know what's going on, why weren't we notified? Why were we just on the back burner. We were just somebody out there. I looked through some of these things and it kind of made me mad. I paid
1 700,000 bucks for an error with Internal Revenue Service
2 because I owned something out there. Now, all of a sudden, I
3 look in the papers and, oh, the wilderness people, it's going
4 to affect them. Oh, and it might affect the mining people,
5 you know. And, it's going to affect some archeological
6 sites. And, what the hell happened to the rancher? I guess,
7 it doesn't affect him. He's the owner of the thing. Why is
8 this so?
9
10 Maybe, we ought to get our ducks in a row here and
11 start going out and get the true meaning of what this thing
12 is doing to the State of Nevada. I don't know why we got it
13 in the first place, but I can surely tell you I think it's a
14 cut and dried deal. I think them sitting up here today
15 telling you that maybe we don't want rail, we don't want to
16 give our radioactive waste to tour through the country, maybe
17 we just want to get it there. And, if you have to get it
18 there, let's get it there in the shortest and the best way we
19 can. Why impact all these people? The first thing I always
20 find out about a government agency, if they want something,
21 they'll go bribe the county officials. Well, Nye County.
22 Oh, yeah, Nye County, I think it's 56 or 57 million bucks
23 they're going to get out of this, you know. Well, what is a
24 rancher going to get out if they're put out of business?
25 Like I say, I'm pretty perturbed over this whole
26 thing. Why can't we cut up and tell the truth? When we come
to these people, tell them the truth, don't feed this stuff about it's only 800,000 acres, when it's 240. Why don't we tell them the truth about it? I'm not too sure that this just isn't a meeting like most of the things to tell you what they're going to do. Maybe they've already done it. It looks to me like they've chose the rail route. It looks like they've chose the one through my ranch.

Now, what about the trucks? Evidently, they've shipped over 600 metric ton of this stuff and never had any accident. They've got to ship another 600 ton. Well, why can't it go on the way it was? Why do we have to come in and devastate a state, take the tax base away from the people of the counties that pay the taxes? I'm a little bitter, yes. I'm bitter.

Thank you. I appreciate you letting me speak before this Board.

ABKOWITZ: Thank you, Joe.

Just as a reminder, there will be another public comment period late this afternoon. Because of the schedule, but also I'm aware that everyone needs to take a break and also get fed, we're going to reconvene promptly with the emphasis on the word "promptly" at 1:15.

Thank you.

(Whereupon, a luncheon recess was taken.)
ABKOWITZ: We're ready to continue our program today which, as you know, is very aggressive. So, we're trying to get things going here as quickly as possible.

If you'll recall from the overview presentation this morning, our interest is in hearing not only from those folks who will have custody of nuclear waste shipments and spent nuclear fuel and high-level waste shipments should the repository come into being, but we're also interested in those folks who have oversight responsibilities and are affected stakeholders along the proposed transportation route.

And, if you'll also recall, we talked about kind of the national infrastructure and corridor issue and then the need to focus in more specifically on the State of Nevada's concerns, and then within the State of Nevada, hearing from counties and other stakeholders at the community level.

So, the program is now going to shift into this next session on state and local governments. We're going to hear from three different perspectives, as I mentioned; the corridor state perspective, the Nevada perspective, and the local government perspective.
1 And, speaking on behalf of the corridor states will
2 be Thor Strong. Thor currently serves as the Acting
3 Commissioner of the Michigan Low-Level Radioactive Waste
4 Authority which is an office within the Michigan Department
5 of Environmental Quality. He's served as the Associate
6 Commissioner of the Authority since 1992, prior to his
7 current assignment. Thor has also served as Michigan's
8 representative to the Midwestern Radioactive Materials
9 Transportation Committee and he became chairperson of that
10 Committee this month. He also serves as Michigan's
11 representative to the Low-Level Radioactive Waste Forum and
12 serves as an Emergency Management Coordinator for the
13 Michigan Department of Environmental Quality and as
14 Michigan's representative to the EPA Region V Regional
15 Response Team. As a representative of the Midwest Council of
16 State Governments, we have invited Mr. Strong here today to
17 give the perspective of corridor states.
18 I might point out that the Midwest Council of State
19 Governments is one of the handful of regional enterprises
20 that have had a long and successful history of interacting
21 and effecting issues that relate to the transportation of
22 nuclear waste and spent nuclear fuel and other nuclear
23 wastes.
24 Thank you.
25 STRONG: Thank you for that introduction and thank you
for the opportunity to be here this afternoon and to share some thoughts on behalf of midwestern states and perhaps corridor states, in general.

This is going to be sort of a low key presentation, an old-fashioned presentation without Power Point. The bad news is that if I say anything noteworthy, you're responsible for taking the notes. The good news is that you'll have one less thing to stuff in your briefcase and I shouldn't experience any technical difficulties in the presentation.

I want to start with a little story. Just about 10 miles south of Lansing, Michigan, the capital of Michigan, is the small town of Potterville. Potterville is a town of about 2,000 folks. On Memorial Day of 2002, uncharacteristically a beautiful, sunny, warm Memorial Day in Michigan, most of those 2,000 residents were outside enjoying the weather, cooking on the grill or mowing the yard and these sort of things.

At about that time, a freight train coming in just crossing into the town limits, derailed. About 34 cars of a 58 car freight train came off the tracks and ended up in a big heap right inside the town limits. The 34 cars that came off the train included about half a dozen propane tankers and several tankers filled with sulfuric acid. The 2,000 residents of Potterville were evacuated from town that May afternoon and the whole town was empty for more than five
1 days while hazmat crews came in to unload the propane, to
2 clean up some sulfuric acid that was spilled and generally
3 clean up the mess along the tracks.

Well, now, as you may remember, right about that
5 same time through the spring and early summer months of 2002
6 was when Congress was debating the designation of Yucca
7 Mountain as our repository. The Lansing State Journal, the
8 main newspaper for our capital city, published an editorial
9 that recommended that the Senate reject designation of Yucca
10 Mountain citing transportation concerns as their primary
11 issue and the primary reason for that recommendation. The
12 paper referred to that Potterville incident and posed the
13 hypothetical questions asking what if that train had been
14 transporting spent nuclear fuel rather than merely propane
15 and suggested that the residents would have been faced with--
16 and I'm quoting here--"they would be faced with a devastating
17 nuclear nightmare."

Well, I did write the paper and try to clear up
19 some misconceptions, but I share this incident because I
20 think it helps illustrate where state agencies, such as mine,
21 find ourselves in this whole issue. Somewhere in between the
22 DOE and the utilities trying to get a repository operational
23 and get the spent fuel shipped to it on the one hand, and on
24 the other, a skeptical and fearful public along with a media
25 that's not very well informed. Even hazardous materials
professionals seem to view radioactive materials as something different and more mysterious than other hazmat materials. A couple of years prior to that when Michigan was looking at a shipment of MOX fuel and it became quite a contentious political issue, one of the Detroit papers ran an article and it quoted a Michigan State Police hazmat training officer, no less, and he was quoted as saying, "Radiological emergencies are unique. We don't practice for plutonium. Unlike chemicals, these are hazards you can't see, smell, or taste."

I always wondered how often he goes out and tastes hazardous materials. But, nonetheless, that's what he said.

The agenda heading above my name says "Corridor States Concerns", and indeed there are a number of issues and concerns that I feel need to be addressed to assure safe and secure transport of spent fuel. But, speaking for Michigan, we have three nuclear power plants, three operating nuclear power plants, one of which has already had to adopt dry cask storage, and a fourth plant that's in the midst of decommissioning. That Big Rock Point Nuclear Power Plant is well-along in its decommissioning. Within two years, all that will be left at that plant site will be a dry cask storage facility. So, speaking on behalf of Michigan and I think from many other states, we share the goal of wanting to get a repository operational and getting fuel into it.

You've heard and we're all aware of the impressive
A safety record that transporting radioactive materials can boast. But, the concern amongst the public still remains and I think we'd all agree that the Yucca Mountain shipping campaign will be, at least, from a magnitude standpoint unlike anything we've ever done before. Within a couple decades, I presume that the shipment of spent fuel may be seen as a commonplace and routine activity, but initially it will probably be anything, but routine.

The states along with their municipalities are on the front lines of that. We want to do our part to assure the development of a safe and secure transportation system. What I have to present are just some ideas that I think we need to have accomplished in order to be able to go to our citizens, to our government officials, and to our media to show that we are indeed prepared to oversee such shipments and to be able to respond effectively to any incident or accident.

A number of things that I'm going to share have already been spoken about earlier in the day. So, I'm going to gloss through some of this. But, first of all, and most importantly, is that we all work together. OCRWM's strategic transportation plan that was issued last November calls for "a collaborative transportation planning process", and indeed I think this sense of working together is the very most important thing and the key to everything else.
There have been a number of shipping campaigns over the past number of years, and from the perspective of the midwestern states, some of these have been very good, some of them have been bad, and some of them have been down right ugly. The primary difference between those, I think, has been the degree to which a collaborative planning process was followed.

One of the best examples that I can cite from the midwest standpoint of a good working relationship was in regard to a shipping campaign of foreign research reactor fuel and I believe we'll hear a little bit more about that this afternoon. But, I can give it kudos by saying that DOE came to the midwest states more than two years in advance of those shipments. They developed a very comprehensive transportation plan. They gave the midwest states a great deal of opportunity to participate in its development, to share concerns, to share perspectives, and they were willing to consider those. They even included us in a cooperative way, collaborative way on the back side in terms of developing a lessons learned document. Another positive example is the WIPP Transportation Plan and Program Implementation Guide. The WIPP Transportation Plan is fairly routinely held up as the model that other transportation plans ought to base themselves on.

And, the most glaring example of a bad
1 transportation plan was in regard to a one time shipment of
2 MOX fuel that was to be shipped from Los Alamos up into
3 Ontario, Canada, I believe, back in--it happened in the year
4 2000. With that campaign, I couldn't even get my phone calls
5 returned when I would call the particular DOE office that was
6 in charge of that shipment and there was absolutely no effort
7 to work with the states on that campaign.
8
9 So, number one, I guess, what I'm suggesting is
10 let's commit ourselves, all of the various stakeholders and
11 parties, to work together. We in the midwest were very
12 gratified to hear of OCRWM's commitment to this collaborative
13 approach, and even more specifically, were gratified of their
14 recognition of this regional planning approach, the regional
15 planning mechanism that's made possible by those four
16 regional cooperative agreement groups of which the midwest is
17 one of them.
18
19 We've heard a little bit about transportation mode.
20 Indeed, DOE has looked at the issues of mostly truck versus
21 mostly rail scenario. Everybody is sort of, I think,
22 assuming, presuming that the decision will soon be made on
23 behalf of the mostly rail approach because of the
24 efficiencies and economies of scale that rail offer. But,
25 indeed, this is a decision that has to be made soon because a
26 lot of other things hinge on it.
27
28 From the perspective of state agencies and state
response crews and this sort of thing, rail shipments can possibly create some complications that are not present for highway transport. Because rail lines and rail yards are private property rather than public thoroughfares, there is some--it could be problematic for states to conduct inspections, to provide escorts, and some states have even expressed some concern about their ability to respond to an incident if it's on--if it occurs on railroad property. So, rail carriers are going to have to be open to and accepting all the involvement by state and local radiological agencies, emergency response agencies, and that sort of thing.

A moment ago, I mentioned the WIPP Transportation Plan as being a model and there have been, I think, a couple thousand shipments to WIPP to this point, all of them by truck. However, DOE right now is looking at the possibility of a rail shipping campaign to WIPP. Over the next several months, those four regional cooperative agreement groups are going to be looking at developing a set of rail safety principles. The intent, in essence, is to have a rail companion guide to mirror the transportation plan that's been developed for WIPP to this point which is strictly highway based. One of the principle reasons for the midwest to be involved and to be interested in this project, this WIPP rail project, is because we feel it will set a precedent for the eventual shipment of spent fuel to Yucca Mountain by rail.
We've heard quite a bit this morning about dedicated trains. I won't go into that any further except to acknowledge that the states in large part are in favor of dedicated trains. The one rationale for dedicated trains that I did not hear this morning was the recognition that with a dedicated train, you don't have other hazardous materials riding alongside; hazardous materials, such as propane.

We heard a little bit about routing this morning, too. Corridor states are going to be very interested in being part of routing decisions, whether the transport is by rail or by highway. Our loading options are fewer if transportation is by rail than by highway, but nonetheless, states feel like they have the benefit of ground truthing routing decisions and that our active involvement in routing decisions will benefit everyone.

We want to be involved with those routing decisions well in advance of shipments, as well. We feel that those decisions ought to be made several years, at least three years, in advance of a shipping campaign in order to give ourselves the chance to focus our training efforts.

And, finally, on the issue of routing, we've long maintained that DOE must retain the responsibility for those routing decisions and retain the responsibility for interacting with the states and local governments on those
decisions. We would not like to see those responsibilities passed off to carriers or to other transportation contractors, recognizing that, yes, indeed, DOE is obligated to privatize much of the transportation program, but there are some responsibilities that they should just not simply pass off to contractors and routing is one of those.

How many of you remember the move Jerry McGuire? How many of you remember sort of the one classic line by the actor, Cuba Gooding, in that movie? Remember what it was? "Show me the money."

Section 180(C) funding, you heard a little bit about that this morning. Section 180(C) is a provision within the Nuclear Waste Policy Act that requires DOE to provide funding and technical assistance to the states to help us prepare for and plan for eventual shipments to Yucca Mountain. Well, the states did work with OCRWM back in the mid-1990s to develop a set of draft policies and procedures for implementing Section 180(C) funding. That policy document though has been kind of sitting on a shelf since about 1998 and we think it's a pretty high priority to get that policy back out, dust it off, and update it and look at it again. One of the provisions of that draft policy was that it provided for the issuance of planning grants to affected corridor states starting four years prior to the commencements of shipments. So if, indeed, we're looking at
shipments by the year 2010, then finalizing that policy needs to be undertaken soon because those first initial planning grants ought to be coming to states by the year 2006.

One other aspect of Title 180(C) funding that is important for DOE to recognize is that states are not all going to approach issues of transportation planning, training, and emergency response all in the same way. That Title 180(C) policy should maintain lots of flexibility for the states to be able to use those funds in ways that they deem most appropriate to meet their particular needs.

Going off point just a little bit in regard to funding, as I mentioned earlier, that hazmat trainer who was quoted as making comments about rad materials being so much different, I continue to be surprised at how little radiological response is built into general hazmat training by states and by municipalities. There is a real need to institutionalize that training. At this point in time when communities all across the country are looking at and concerned about the prospects for dirty bombs and other radiological terrorism kind of things, I think there's an opportunity to provide some more institutionalization for radiological response training through either Homeland Security funding and a concept that some of the states were trying to push DOE several years ago and that being a consolidated grant concept. Rather than each individual DOE
Office doling out small bits of money to states for particular shipping campaigns, the consolidated grant concept would sort of be a more umbrella approach to providing funds for the states.

You also heard earlier about full-scale cask testing. I think most states are very fully supportive of a new round of full-scale cask testing. First, from a technological standpoint to indeed validate the computer models that are used to test casks and to certify casks for shipping, but also and perhaps more importantly from a state perspective, to be a way to boost public confidence in the ability of those casks to withstand major accident scenarios.

There isn't a lot of universal agreement on the extent of a new cask testing protocol.

There is some disagreement on such questions about whether to include the puncture and submersion tests, as well as the impact and thermal test that NRC is proposing at this point. There's a question—I think we heard it earlier—about the issue of whether to test to failure or not. And, there's an issue about whether cask testing should be a prerequisite for the licensing of new casks, cask designs. At least, the corridor states are not in total universal agreement on those questions. It seems to me that the most important thing to do at this point is to get something accomplished in regard to cask testing. At least, the basic
protocol as it's been proposed by NRC, and with the results of those tests in hand, maybe that will help determine what more, if anything, needs to be done.

We heard a little bit earlier about shipment tracking. The states indeed need to be able to track and known where a shipment is as it comes across, especially states that are large and predominately rural. There is the DOE TRANSCOM system that states have generally used, and in large part, been fairly satisfied with. TRANSCOM has come a long way in recent years to be more usable, more real time kind of thing. There's still some problems experienced with TRANSCOM. With a shipping campaign of spent fuel out of University of Michigan's research reactor last fall, our state police had problems--the system just didn't back itself up regularly enough. We felt like we were sort of not keeping up with the shipment. That day that was being shown wasn't real time enough.

But, nonetheless, TRANSCOM has improved and I think improvements will continue to be made. The one important thing from the state's perspective is that there is a single system, a single satellite tracking system that's employed for all shipments. Again, indeed, if we proceed to a mostly privatized transportation system, what we don't want to have is several different contractors with several different satellite tracking systems, all of which the states have to
You heard earlier also about provision for armed escorts. This can perhaps be a thorny issue as we go down the road. For some recent fuel shipments out of Oak Ridge, the DOE used Federal marshals to provide that armed escort. Two of the states along the shipping corridor would not provide their own armed escorts; whereas, the other several states that were on the shipping corridor provided their own escorts even in addition to the DOE armed escorts. States, I think, are going to continue to have differing perspectives on what they want to do in that regard relative to armed escorts. But, as a starting point and I think as Steve Kraft mentioned earlier the first thing this morning, as a starting point, we would like to see DOE commit itself to fully following the NRC regulations concerning shipment security and specifically in regard to routing approvals and the provision of those armed escorts.

I want to mention just a couple things in closing that are kind of particular to the midwest, one which was mentioned earlier. That is barge shipments. When Congress was debating Yucca Mountain designation in 2002, indeed, some of Michigan's Congressional delegation were concerned that the DOE Environmental Impact Statement included the prospect of barge shipments on the Great Lakes. And, in fact, they incorrectly interpreted that to mean DOE wanted to ship and...
intended to make shipments by barge on the Great Lakes. Nonetheless, even though that's not the case, shipping by barge out of plants in both Michigan and Wisconsin would be a particularly thorny political problem for us all. The Great Lakes are seen by particularly Michigan, but I think other Great Lake States, as such a crown jewel in terms of their natural resource base that shipments by barge would be seen as particularly onerous. We did write a letter to Dr. Margaret Chu last August stating that the Midwest Committee recommended that OCRWM eliminate the option of Great Lake shipments by barge.

Finally, there's an issue of winter shipments. Some states have expressed concern over the problem that severe winter weather may pose. Now, of course, truck shipments are probably more vulnerable to severe weather than rail shipments are, but some states have expressed concern over the problem of responding to a particular incident in the midst of severe weather, whether by highway or by rail. The Midwest Committee suggested to OCRWM that they look at the possibility of scheduling shipments from northern sites in the summer and from southern sites in the winter.

So, as you see there's no shortage of issues for the states, the tribes, and municipalities to work with DOE on. I guess, the good news is that, at least, from the perspective of the corridor states is that there are no real
show stoppers. We need to be committed to working together to address these issues. We need to consider each other equal partners, I guess, if you will, and dedicated to try to work through these things with each other's interests in mind.

With that, I'll answer any questions that you might have.

ABKOWITZ: Thank you, Thor.

I guess, I'll start off with the first question. You mentioned in your discussion of the importance the states associate with being involved in the routing decision. At the same time, my understanding is that the states are pushing DOE pretty hard to announce modes and route decisions as a record of decision as soon as possible so that you'll have the maximum amount of planning opportunity. Has your regional association and your partners been asked to come to the table to discuss the routing decision making process, how you'll be involved, what criteria are going to be used, and so forth and so on?

STRONG: We've certainly been pushing the mode decision. The routing decision, I think, is contingent upon first making that decision on mode. No, we have not to a substantial degree been involved with specific conversations or discussions over routes at this point. It's something that we're eager to get involved with, but we haven't been--
the routing issue is something that may not be quite to the point in time where those discussions have to take place. It's just something that we need to be involved with eventually.

ABKOWITZ: Thank you. Dan?

BULLEN: Bullen, Board. Just a quick question. You mentioned the 180(C) funding in support of the states' emergency response and preparedness. Has that level of funding been adequate, do you foresee it to be so? And, I guess, the concern that I have is that DOE has had budget cuts up until every year except about now and the emphasis is going to be maybe on building the repository and making the effort to transport. So, I was just wondering about the sufficiency of that funding and the ability of the states to obtain it?

STRONG: Right. Well, of course, Section 180(C) hasn't --we haven't received any 180(C) funding to this point. In terms of its adequacy, the draft plan, if my recollection is correct, started out with recommending planning grants of $150,000 which is consistent with what's been done under the WIPP Program. Yes, indeed, states will have some concern about the sufficiency of funds and, quite honestly, some states will look at whatever number comes out differently than other states. Some states will be able to live on the lesser amount of funds. And, I guess, it depends on what
1 eventually comes out as the allocation formula. We are
2 trying to keep it simple and base it on things like number of
3 shipments or number of routing miles and this sort of thing.
4 So, we're hopeful that it will be adequate, but in
5 recognition of what you just said about the sufficiency of
6 budgets and severe budget deficits and this sort of thing,
7 that's sort of what prompted my comments about needs for
8 looking at things more universally and include radiological
9 response training and other umbrellas.
10 ABKOWITZ: Ron?
11 LATANISION: Latanision, Board. Have the governors or
12 legislative leaders in the corridor states that you work with
13 expressed public opinions on the transportation issue?
14 STRONG: I think each of these regional planning
15 committees has tried to keep their governor's offices and
16 legislative conferences abreast of things. I know in the
17 midwest, we have fairly routinely gone to governors'
18 conferences and last summer we had the midwest legislative
19 conference adopt a couple different proposals or resolutions
20 --that's the word I was looking for--acknowledging the need
21 for a full transportation plan and also a resolution was
22 passed in sort of supporting the idea of full-scale cask
23 testing. So, indeed, there's more that we can do and
24 eventually as we go along we'll need to do in terms of
25 keeping governors and legislatures abreast, but I think we've
1 been doing a reasonably good job at this point.

2 ABKOWITZ: Dave?

3 DUQUETTE: Duquette, Board. This is sort of a followup
4 on Dr. Latanision's comment or question. You're in a state
5 that has nuclear reactors and spent fuel and so on and so
6 forth. But, many of the corridor states do not. Do you have
7 any feeling for what their attitude is for transporting it
8 through their states?

9 STRONG: Well, in the midwest, I think, Indiana is the
10 only corridor state that does not have a nuclear power plant.
11 And, indeed, they're concerned with basically the same
12 issues as all of the rest of us. The need to be involved
13 with routing decisions, the need to be able to have the funds
14 and the time to train emergency response personnel along
15 those routes, and some states are eager to do things like
16 hospital training and this sort of thing. I don't see a lot
17 of difference in perspective between a corridor state that
18 has versus those that do not have nuclear power plants.

19 Does that answer your question?

20 ABKOWITZ: Thank you very much, Thor.

21 STRONG: All right. Thank you.

22 ABKOWITZ: We're now going to shift our focus to
23 transportation concerns from the perspective of the State of
24 Nevada and speaking on behalf of the State today is Robert
25 Loux. As most of you know, Bob is the Executive Director of
the Nuclear Waste Project Office within the State of Nevada's Agency for Nuclear Projects. This office has been in existence since 1983 and Mr. Loux has been the only Director. He has worked under six Nevada governors in high level radioactive waste management and other energy policy issues.

From my academic background we refer to Bob's success in that regard as the Webe Theory. We talk about that with regard to our Department Chairs and Deans and there's a lot of former Deans and Department Chairs on this board, but the Webe Theory is basically, "We be here before you get here, we be here after you're gone."

I would like to welcome Bob up here to talk about transportation planning and also recognize Bob Halstead who is the transportation guru for the State of Nevada and is equally knowledgeable and passionate about the subject.

LOUX: Thank you very much. I appreciate the opportunity to be here today and appreciate your holding hearing on this fascinating subject.

Some of the issues that I'm going to touch on have been kind of illuminated already today.

When our previous speaker was talking about some of these shipments from Michigan and talking about some of these stories it reminded me of one about a junior senator from Michigan who, upon hearing about plutonium being
shipped through Michigan to Canada, wrote a rather strong
condemning letter of the whole planning process of the
Department of Energy in shipping this material and ERS
decided to go with the effort. And of course, as you may
know, the junior senator went on to become the Secretary of
Energy. I suspect that his views now have changed somewhat
in this regard.

You're correct that I have with me also Joe
Strolen, in addition to Dr. Halstead, and as you know, Bob
is not a doctor, but he plays one on TV.

Before I actually get started, on a more serious
note, all of the kinds of things that we're talking about
here today and things I've heard all morning, have come
from all of us who are simply paid to take some of these
positions and to be here today.

And, I just can't help but not recognize the
Nevada ranchers that have been here earlier today and spoke
to you on issues that I think we all feel very deeply
about. And really, they are the real people who are
affected about what's going on here. We're all involved in
these planning processes and issues, but truly, those are
the people that of anybody DOE ought to be talking to, it
ought to be them. They are the ones who are on the front
line, the ones who are being most dramatically affected.
And, I thought that their comments and statements today
were very compelling, and I can't help but recognize that they are the people that really need to be involved in this process.

As you know, a year or ago or so, I think it was in February, we made a similar presentation that I'm going to talk about today, and I'm not going to go through all the same issues, most of which you've kind of heard before, although there's some that I will kind of touch on briefly.

We have, as you know, been long involved in all of these issues that we've talked about today. When I heard the earlier remarks on Department of Energy, it literally could have been 1984 that we were sitting here listening to the same thing, and we did hear the same presentation then that we heard today, and really not much has changed. And we've made these similar recommendations to the Department of Energy I've listed here for probably better than 20 years now.

We also have been involved in these regional organizations that Thor spoke of. The Western Interstate Interview Board, the Western Governors' Association, other states and local governments and tribes, in developing these recommendations, and as I've said, we've worked on them for, really, more than 20 years, and we've developed transportation primers. WEBE has, there's been WGA resolutions about transportation. Lessons learned from--
his gentleman spoke of the WGA WIPP transportation programs, and by and large all of those recommendations have just been completely and totally ignored by the Department of Energy, who actually paid for them through these regional organizations. They paid for this primer, paid for some of these products that came out that were very, very good planning tools and by and large have been totally ignored.

Restating these same concerns without requiring DOE to adhere to some sort of strict decision-making process, we believe, is becoming just a continued exercise in futility. The only way we know to accomplish the kind of project that's going on here is through NEPA, which prescribes, as many of you know, a very coherent step-wise planning process that all of these decisions could be gathered in and could be dealt with comprehensively as opposed to what's really going on in this process. The fact that DOE has included transportation issues in the Yucca Mountain EIS really does not really absolve them from conducting a full blown NEPA analysis of spent fuel and high-level waste transportation.

Here's the road map, essentially, we put forward to DOE in August of 2002. No surprise here. Develop a national plan, scoping for a programmatic EIS, develop a
1 draft programmatic EIS, complete the final programmatic decisions.

Then issue a ROD, an integrated transportation system, and--next slide, and then use the Tiered EISs and the EAs for the subcomponents of the system for heavy all-truck operation, rail alignment, as the case may be.

This process, for most state and local governmental planners and even those in the federal government is not unique. It's well know, well prescribed. It has worked out before even for DOE. For example in the waste management PEIS for low level waste and mixed waste decisions that were made in 1999, and DOE followed this kind of step-wise process all the way along.

The next slide I think is the last one in that sequence.

All the way along, and it has really resulted in a rather coherent, organized, well defined decision-making process where everyone saw the opportunities to participate, saw where their input had effect into the process. And by and large, although Nevada and I suspect Washington State, aren't in agreement with the ultimate outcome of the planning process, resulted in a decision that by and large have not been able to be really legally challenged, and have actually served, actually, the Department quite well.
And the WIPP program is another one. The former speaker mentioned, you actually have the architect of that program in the room today, Ralph Smith, from the WIPP program who has done a fantastic job of organizing all of the WIPP planning process that most states I think have found to be satisfactory.

The DOE's preferred rail notice that we've talked about earlier today really, and it was noted by Nevada ranchers and others, is really a symptom of this dysfunctional process that DOE has engaged in. The current approach is really untypical to what really ought to be done. It's an example of what's really wrong. They've announced a preference for a Caliente rail corridor before a decision has been made about shipping mode or national campaign or shipping routes. There have been no analysis, comparative analysis, among the alternatives of the five routes the DOE indicated in the EIS. There's no way to know what was leading them to the Caliente route, for example, if the exclusion of the Las Vegas routes were the routes that went through the Las Vegas Valley, or screened primarily on population. Something I might agree with, but what does that say to other cities all the way along the way. Salt Lake, Chicago, all these other places. There's no evidence that there has been any comparative analysis, something that we really believe ought to be forthcoming.
We ought to all be able to see.

And suffice to say, and I think the previous speakers have really talked to this. There has really been absolutely no—I mean no, a big zero—consultation, communication, whatsoever with the State of Nevada in any sense of any of these issues. Perhaps some with some of the counties, but I suspect, by and large, it has not. This whole process is segmented, piecemeal and really backwards. And really, again, this announcement that we talked about earlier is really the symptom of the entire project. It really shows what can go wrong when you really start doing the piecemeal planning process and don't integrate and put these things in the proper fashion.

Let me just leave you with three or four questions that we would have for DOE and particularly related to this December announcement on this Federal Register notice that was referred to earlier.

You know, why would DOE select a preferred corridor without first identifying the preferred mode? If DOE adopts the mostly-rail mode, what's the actual modal mix to be expected? Why did DOE fail to consult with Nevada and counties on the rail corridor, like Caliente? And, to say nothing of the people actually affected, ranchers and other people.

What specific criteria and data were used to
select the preferred corridor? Other rail corridors remain under consideration, something to be reconsidered if both Caliente and Carlin are found to be feasible, something that we believe is certainly not beyond the realm of possibility, given these two alternatives, represent the longest, most costly and most difficult aspect of the Yucca Mountain transportation issue.

When will DOE issue a ROD concerning the mode selection? And, has DOE completely eliminated consideration of mostly trucking, the preferred mode? And, under what circumstances would mostly truck be used?

These are questions that, in addition to the ones that you've heard from other speakers are ones that DOE is failing to address, has not addressed to date, and ones that we submit probably need to be addressed before the process goes much further.

Lastly, let me say there are hundreds of other questions that we and others have talked about related to DOE's piecemeal that can only be answered by holding DOE's feet to the fire, requiring a comprehensive, integrated transportation planning process. And we believe this can only be done by demanding a full and complete NEPA review.

Having said that, in trying to address some of the questions, Mr. Chairman, you had posed to some of us, we do have some response to some of them. They may be a
little longer than you want to spend time here today. But I'm assured if there's any tough questions from the Board that my backup here can probably handle all of those. So with that, let me just turn it over to you and see what questions you might have.

ABKOWITZ: Okay, thank you, Bob. We'll start with Dave Duquette.

DUQUETTE: Duquette, Board. Assuming, and it's perhaps a big assumption, that the project is approved, does the State have a preferred rail corridor? Well, not a rail corridor, a transportation corridor, I should say.

LOUX: It's particularly I think premature at this point to even kind of look at those issues until we're further down the road in trying to really understand if the project is really going forward. I think there's probably some serious doubts at this point that it's going to proceed and if it does proceed, certainly not on any time scale. I think that we need to be involved in a process collectively with the counties and the cities and other entities in Nevada, with the Department of Energy at some point in time to really realize that. But no, we don't have a preference.

DUQUETTE: Thank you.

ABKOWITZ: Dan Bullen.

BULLEN: Bullen, Board. Five rail routes from which
the DOE made its selection were part of the final
environmental impact statement for the underground project,
as I understand. I guess I'm--maybe my memory is fading,
but I was just wondering, what was the public participation
in the vetting of those routes during the course of the
environmental impact statement for Yucca Mountain? And,
what additional kinds of information would you expect to be
presented by DOE in the public domain so that they would
have an opportunity to comment?

LOUX: Well, a lot of those issues, you're right were
talked about in the Yucca Mountain EIS and the public
hearings, some of which were held in Nevada, some of which
were held, certainly, outside the state, and I suspect in
most states they wondered what the heck they were really
commenting on since it wasn't clear to them what this had
to do with them at the point in time.

Your second part of the question?

BULLEN: What opportunities were there for the
Nevadans to comment on the sites now--yeah, what additional
information would you expect to see from that?

LOUX: Well, the first issue is that there has been no
opportunity. And secondly, the issues that we would like
to see at this point in time is certainly some analysis,
for example, about how we made this decision relative to
Carlin and Caliente, or reverse that, Caliente/Carlin.
1 What was the comparative analysis? What were the factors
2 proved one over the other in preference for the Department
3 of Energy to choose? Were they financial? Were they
4 avoiding land use conflicts with the population? No one
5 knows. It's as if it was pulled out of a hat. We believe
6 that has to be a public record, that has to be part of the
7 NEPA compliance process, and something that ought to be in
8 the public domain that everyone can examine.
9     BULLEN: Bullen, Board. Just one last quick question.
10 Would you expect to see those kinds of arguments in the
11 record of decision when it is finally finalized with
12 respect to the route selection? Or is it just going to be
13 a route selection and that's it?
14     LOUX: In a word, no.
15    ABKOWITZ: Bob, I have a couple questions, if I might.
16 The first one is we heard earlier today about the
17 intermodal transfer issue and what would happen when you
18 take a well cask and put it on a truck and now it's a super
19 heavy weight vehicle and would require special permitting.
20 Is that a permit that only the State of Nevada has the
21 authority to grant, and what is the, sort of the view or
22 the likelihood of such a thing occurring?
23     LOUX: Let me tell you, to the extent that they take
24 place on state highways, yes, the State of Nevada has that
25 authority. What our State Department of Transportation has
1 told DOE is that if they want to engage in that sort of
2 activity that each one of the shipments would have to be
3 permitted separately, individually, for each individual
4 shipment.
5
6 They've also specified requirements on upgrade,
7 additional highway lanes, if you would, adjacent detour of
8 these highways as prerequisites to going forward. As well
9 as, I think, a variety of other technical criteria that
10 they've communicated to DOE already, I know. But those are
11 just the highlights.
12
13 ABKOWITZ: My second question is as these issues start
14 getting vetted at the county and local level, and I know
15 we'll be hearing from folks in a short while, what role do
16 you see the state playing in sort of refereeing or
17 facilitating the process?
18
19 LOUX: Well, I'm not sure at this point that we're
20 going to get in any sort of a position of refereeing any
21 sort of discussions. We certainly want to be a resource.
22 We want to be able to provide what information experts such
23 as Dr. Halstead and others make those available to them,
24 certainly on analysis and others. And we want to be in a
25 participatory mode with these other entities, both the city
26 and the counties all the way along.
27
28 Let me just—one other comment I really needed to
29 make, and about the land withdrawal issue that came up
earlier. Our analysis, by the way, is almost precisely the same as the one that these gentlemen have rolled out. The acreage is not close to what is in the Federal Registry Notice, No. 1.

Secondly, we believe, despite DOE's comments, it does impact areas—the Nellis Gunnery Range and Test Site. It travels that. And certainly, many of the corridors are well in excess of a mile, some of them are in excess of seven miles. We're still in preliminary stages of mapping much of this out. But our tentative analysis agrees with the analysis these other gentlemen have done, and they seem to be very accurate in that regard.

ABKOWITZ: Did your office have any advance notice of this information before it was published in the Federal Register?

LOUX: The Governor's Office got a call and a fax of the letter the day it actually came out. And that was the extent of any notice that we had gotten.

ABKOWITZ: Okay. Thank you very much.

LOUX: Thank you very much.

ABKOWITZ: And, by the way, Bob, we will be kind of submitting a list of 24 or so safety issues that is consistent with your question that we believe, if Nevada was funded, we could help resolve very quickly.

LOUX: Thank you.
ABKOWITZ: Okay, our next presentation is what I fondly refer to as the local government variety hour. We're going to be hearing from representatives of several different local governments in Nevada. In particular we'll be hearing from Nye County, Lincoln County, Eureka County, Lander County, Esmeralda County, and Clark County. And, there's an hour that has been set aside for these folks to share their views. And, as I understand it, there will be, it will be laid out as some scheduled time to prepare presentations, and then time for full discussion amongst the county representatives.

And, because Nye County is the location of Yucca Mountain, we have the Nye County Representative, Les Bradshaw to coordinate this session of today's meeting. Les, if you will come forward and introduce your colleagues.

BRADSHAW: And let the variety hour begin. If we could call the panelists forward. They are listed on the agenda, plus we have the Mayor of Caliente, Nevada, Mr. Phillips. So, if you would take your places up here, we would very much appreciate it.

Beside myself, Abby Johnson and I have--will be presenting--Abby Johnson representing Eureka County. We'll be presenting a sort of a joint statement from eight of the counties. That would be--you know, I've got to memorize
these counties going counter-clockwise or something so I can remember them, but basically the White Pine, Lander, Eureka, Churchill, Mineral, Nye and Clark and Inyo. So, Abby and I will be giving a joint statement consolidating the thoughts and concerns that would answer the questions that the board has posed. The two speakers, not necessarily for their individual counties endorsing those comments, but we are presenting a joint statement and consolidating the thoughts of those eight counties, in the interests of time.

Then, Esmeralda County represented by Mr. McCorkell. George McCorkell, will present comments germane to Esmerelda, but also to the Caliente corridor group of counties. That is the three counties, and our efforts to work together to develop common databases and to present common information to DOE.

And then, Mike Baughman on behalf of Lincoln County, and then in addition another participant from Lincoln County, which will be the Mayor of Caliente, Nevada, located in Lincoln County.

And, we'll leave some time at the end for comments and discussions. Bear in mind that it's pretty hard to--it's a trick of good proportions to try to get the 10 counties to take just an hour. We could all just go on and on about our individual county concerns. But we have
learned that many of our concerns are common and we're going to try to present those to you and so that there's a minimum of repetition and a maximum of good information being presented to you.

I'm going to talk on, or just present some ideas on--the next slide please, if you wouldn't mind--transportation systems and interaction process. And then Abby Johnson will talk--address emergency management and transportation decision-making. And then we'll go on to Mr. McCorkell, Mike Baughman, Mr. Baughman, and then Mayor Phillips. So, these are the combined views. And again, individual counties may have slightly different views or emphasized views.

I would also indicate to you that the way the panel is made up, there may not be proper emphasis to suit all participants on the relative magnitude of various issues, but we can bring those issues out on the questions and answers.

On the transportation system, DOE of course has announced a--the way I understand it, they've announced a preference for the Caliente corridor with a backup for Carlin when they--if they do decide rail as the principal mode, and those would be the corridors that they would look at. So we're focusing--now that takes off three other routes that have been on the table for a while. And we're,
I think most of the counties are focusing on the issues that we have about transportation on those two routes, or corridors and we're assuming that there is going to be a mostly rail mode choice made, although this choice, as I understand it, isn't officially made at this time. But it has been strongly intimated or hinted at. But there will always be a residual trucking or highway shipment component.

So, the issues are narrowed somewhat, but they are not narrowed down to sort of cut and dried, clearly defined issues. Because the highway transportation component is still a little--how that will actually play out is a little bit unknown at this time. The state and other people will have certain abilities and influence on the routes that would be used for that segment of a mostly rail scenario.

Most of the counties on the panel would support very strongly the direct rail to Yucca Mountain, their feelings being that it's probably the best way to keep the shipments away from most of the population. Most people, at least the ones that I'm in contact with, believe that the rail basically is safer than having it on the highways. And, most of the cities and towns along the corridors in Central Nevada would prefer not to have a lot of trucking of nuclear waste through their town.
The rail was built—the rail will be built off to the side. We can all help DOE plan that and place that, and so the nuclear waste comes into minimal contact with the general population in Central Nevada. So that's generally the preferred point of view of most of the counties. There's a dissenting opinion on that and I'm pretty sure you will hear about some thoughts on that today.

So, just speaking for Nye County at this point, Nye County is very strongly saying rail only and rail early. That is, we prefer rail as the principal mode. We would hope to minimize road transportation to the extent possible, and we hope the DOE can have the wherewithal and do the planning and have the funding and the legislative direction to build the rail early on so that the early highway component of the transportation campaign can be minimized.

There are, certainly we realize that even if there is direct rail there will be, have to be a highway component to DOE's transportation campaign. And we recognize that. All the counties recognize that. We're trying to deal with it.

So from transportation system's point of view, you asked some questions about what are our main concerns. Most of the counties would probably agree that
the information flowing from DOE to enable counties to do planning, to be able to actually plan their activities, to deal with the impacts of the transportation program, that planning isn't--they haven't laid out the big picture yet, and you've been here for most of the day and heard that DOE is working at that. But it just, the big picture isn't laid out yet. So timing, benchmark events, and so on, and a lot of the smaller decisions that make up this larger decision have yet to be made.

Therefore, communities and local governments don't have the ability to plan their activities to deal with DOE's plans and to be able to either minimize the adverse impacts or maximize what could be called the good impacts from the transportation program.

And, just as a couple of examples. A communications network in Central Nevada along whichever corridor is selected would be a good thing, a communications network for emergency response and emergency services that's consistent, reliable and compatible amongst the corridor counties and local governments, cities, and useful by DOE. Counties at this moment are investing money in long-term emergency response communications infrastructure upgrades, and yet, we are not able at this point to work with DOE to make sure that our investments are ultimately going to be usable as we--ultimately we'll
have to work with DOE on having a compatible and efficient
and reliable communications system for emergency response
and dealing with transportation incidents.

So that is just one example. And it takes years
to get these infrastructure upgrades in place, and we can't
just do it at the last minute. We can't wait until a year
or two or three or four before the first shipment or the
first train comes down the track to get this infrastructure
in place. And that's just one example. And the panel
members could all give you numerous other examples of the
long wait time needed by the local governments.

So we're not suggesting that DOE is playing hide
the ball at all. They are very welcoming and open arms to
come in and talk to them, but their decision-making process
is not as quickly paced as perhaps some of the impatient
local governments would like to see. And, but, you know,
in the end, I think if we keep talking to each other and
keep working together that we won't get up against some,
you know, deadline where we can't get our infrastructure in
place because DOE is going to start up on a certain date.

A lot of the county delegates and the city--well,
I'm--I'll let the cities speak for themselves, but the
local governments would like to see the big picture laid
out, an integration of decision-making components, what DOE
is basing it's decision-making on and how the various
components of decision-making are addressing local
government questions. And then what's the big picture? How
can they predict out a number of years what the, sort of
the business, what I'll call the business plan, will be for
actually implementing this project?

A good step would be for the DOE to issue the ROD
so that there's—we know what mode it's going to be, but
apparently they've selected the corridor that they will
work on first. And that would be a good way to narrow the
issues and focus down and help local governments to do
certain things to relieve the anxiety of having this
project in our midst.

So, the local governments are asking for
interaction, which I'm not suggesting is totally lacking,
but we would--our concern is that, as these folks that you
heard from--and I do recognize a large contingent from Nye
County here with views and concerns--but people were taken
aback or surprised by an announcement that DOE made which
was broader and had more ramifications attached to it than
what we had anticipated. A simple announcement of a
corridor or preferred corridor, coupled with the BLM
involvement and the BLM actions and the BLM land
segregations.

We in fact were taken aback by the breadth and
the magnitude of the BLM ancillary follow-up actions, or
not ancillary, but the concerted DOE and BLM actions. We didn't understand that there was going to be, you know, I think you heard a figure of 600,000 or 700,000 acres targeted for basically being put into suspense or, you know, no further actions along those indicated sections. We didn't understand that, and we would have liked to have understood it. And so, that's an example of the need for even more interactions between the local governments and DOE.

Now, I've listened very carefully today and there's--DOE is a large organization. It has a lot of management centers, I guess you could say. But we all need to learn how to deal with that and when a decision is made that is so broad and so encompassing and has such a magnitude of impact, we should know that--we should understand what that decision really means.

A lot of the counties are concerned about the NEPA process. And I think others on the panel will address this a little bit more for you, but there was a NEPA process. We commented. There's not a feeling amongst, the AULGs and the citizens and the city that the NEPA process fairly addressed the local government concerns. You've heard a lot about this today and I think you will keep hearing about it. It in fact is a concern that the NEPA process in fact is not a meaningful process for
interactions on this issue or at the individual citizen level and at the local government level.

The issue of umbrella organizations has been discussed—we've just heard from an umbrella organization and you need to work with those, but remember, we were saying to DOE at the end of the funnel, and you saw a little cartoon on the beginning of our thing here, at the end of the funnel a couple of the counties in the U. S. are impacted more than anyone else, and they deserve special consideration and they should not be represented in DOE's thinking and decision-making by an umbrella organization that has a broader perspective and views and concerns and loyalties and obligations than perhaps these few affected counties in Central Nevada. So we ask for consideration about some special interactions process that allows the affected governments that are truly going to deal with each and every shipment some—we could say special standing.

We do, we come to the table with suggestions. We think that perhaps DOE could ask us more questions. We have a lot of solutions. If we had time we could—all the participants here could give you a long dissertation on solutions that we could bring to DOE. We believe that we have expertise and ability and insights into the local governmental process, the local impacts, these fellows that were before you today, we could have averted a lot of that,
the hard edge that this issue has brought to these people by some prior interactions and some knowledge and some information flowing out to the people, to the government and to the individuals.

And, we have a lot of ideas about, in Nye County for instance, which is the situs jurisdiction of where Yucca Mountain will be, if this is going to happen, it's going to have a huge impact in the northern part of Amargosa Valley and Beatty, Pahrump. We have some ideas on how, and if you're going to build things or do things or put things in or bring in 2,000 to 3,000 workers, we have a lot of good ideas on how we could work with you to make that process ultimately beneficial instead of just kind of a boom and bust kind of a thing.

So come to us and ask us about our ideas on how we can help this project have the minimal impact and if there's positive issues that could be maximized. I think most of the counties should want to do that. Certainly, Nye County is looking at ways that, if this is going to happen, we certainly want to make it a benefit to the communities and not a drain or a detriment to the communities.

That concludes my remarks. I'll turn the microphone over to Abby Johnson and then the others will follow in their designated order as we've outlined. And,
then we'll have some time at the end for questions. If it looks like we're going overtime I'll be out waving my arms to us to speed things up so that we can have some time for questions.

Thank you so much.

JOHNSON: Hi. I'm Abby Johnson. I'm the Nuclear Waste Advisor for Eureka County. And, Les and I decided to split up this presentation on behalf of eight out of the 10. And so, as usual, anything that sounds collaborative is from the eight out of the 10. Anything that sounds like a radical opinion is mine.

Regarding emergency management, local governments in Nevada are in the front line of public health and safety for nuclear waste transportation and are responsible for being prepared in case there's an accident. Even if the risk is believed to be minimal, as Les said, we are experiencing virtually all the shipments. And we have the responsibility to be prepared for the unlikely event.

Interlocal mutual aid agreements continue to commit counties to regional emergency response obligations, regardless of routing and mode decisions. And similarly, these mutual aid agreements which are particularly important to rural Nevada, will require emergency first response training and equipment to be provided by DOE to local governments who are not necessarily directly on a
We find that DOE's record is inconsistent with its success with shipping campaigns. As we've heard today already, the WIPP interactions have gone particularly well, whereas the foreign fuel shipments by rail through northern Nevada, at least based on Lander County's experience, did not. And one thing that I think is really important to point out is that working through the state government--this is a general comment--does not guarantee adequate preparation at the local level. And this should be a concern for DOE and for states, as well as for local governments. All three of those should be worried about that lack, or concern.

Route preparation criteria. DOE needs to establish acceptable route preparation criteria before shipments could begin. Criteria could include emergency response training, equipment, infrastructure improvements, appropriate monitoring, oversight capabilities. The WIPP example is that shipments don't start along a route until it's considered to be open. To be open, DOE has to provide training and participate with states and public information and, in essence, the state has to agree that the preparations along the route are adequate, and that emergency responders are prepared to handle an event.
I guess--this is one of my comments, is that that's great, but that's maybe not enough for the counties at the draining end of the funnel. There may need to be more interaction with local governments at the draining end of the funnel.

Thereby leading to the next slide, that it's important to involve local governments early and often. I'm going to say what Les said, but in a slightly different way. One, coordination for AULGs with DOE is essential. Looking at the WIPP model and possible ways to strengthen it would be to have the state and the locals involved in transportation planning and implementation, and that that planning should address emergency response training and equipment, required infrastructure improvements, appropriate monitoring, oversight capabilities and the role of volunteers, which is really a tricky thing, at least here in Nevada where most of rural Nevada is protected only by volunteers, and what we would be asking them to do in terms of training for this level is perhaps more than is practical.

180(c) is not the answer. We've heard a lot about that today already. Based on a DOE analysis of total system lifecycle costs in 1998, the amount of project funding dedicated to fulfilling DOE emergency preparedness responsibilities under 180(c) is inadequate to meet
national needs to upgrade highways and emergency response capacities. This could lead to under-funding of impacted agencies and jurisdictions. And, DOE must develop realistic cost estimates for improving and safeguarding rail and truck.

Well, what about the capacity of the effected units of local government? There are two points I would like to make here. One is to bring to your attention, again, a concept that Eureka County has studied, but which we're happy to share with everybody else. And that is that DOE should plan and budget for regional, and frankly, rural, emergency response training facilities that would be fully funded by DOE, staffed by professionals, but controlled or operated by local governments. We proposed this in a report and in our impact assessment report. This especially deals with the problem of depending on volunteers, among other things.

The other concern is emergency medical capabilities and training. Those capabilities are like regular emergency response in that maybe nothing is going to happen, but you've got to have everything ready in case it does. Volunteers, facilities, emergency medical capacity, training, in preparation for a potential incident.

I would like to move on to transportation
decision-making by DOE. The AULGs are experiencing a piecemeal decision-making on transportation because of the lack of the transportation programmatic EIS, which would have analyzed cradle to grave transportation of all materials destined for Yucca Mountain, including PFS, the defense waste, and would be in the context of current low level waste and transuranic shipping programs that are already affecting California and Nevada.

In order to avoid 12th-hour decisions which prohibit effective risk management, risk analysis and management, such as emergency first response training, DOE must move forward expeditiously to make specific mode and route decisions regarding transportation through Nevada.

Regarding the upcoming mode decision, mostly rail or mostly truck, the FEIS lacked a national route-specific study that should be the basis for informed decision-making on mode and route, and that takes into consideration all affected, involved and responsible parties from those many cradles to that one grave.

The FEIS is inadequate to support transportation planning and decisions that take into consideration the indirect effects and cumulative effects of nuclear waste transportation.

And, frankly, what is the basis of DOE's mode decision? Who decides? Why isn't this a public dialog
since the entire country is affected? 21 FEIS hearings
does not constitute a national public dialog. What is the
mode preference based on other than rail is safer?
Bob Loux indicated that when the decision comes
out it will just be a decision with no explanation. I hope
he's wrong.
In addition, a lot has changed since September
11th, 2001. And, because FEIS was completed prior to that
time, the FEIS does not give proper weight to security
issues. And, a supplemental EIS that focuses on those
regarding Yucca Mountain transportation and the commercial
nuclear fuel cycle should be developed.
Regarding truck decisions, the final EIS for the
project does not provide sufficient detail on potential
truck routes into Yucca Mountain. Although DOE claims that
the FEIS is sufficient to support all subsequent decisions
concerning routing, no analysis was done on several rural
routes already used by DOE for nuclear waste
transportation. And also, the FEIS did not compare
potential truck routes with respect to safety and cost.
Regarding rail, as has already been discussed,
Caliente is the preferred rail corridor at this time.
Carlin is a secondary preference. The DOE intends to
prepare an EIS, as we understand it--as we understand it,
comma, the DOE intends to prepare an EIS only on the
1 Caliente corridor. From a planning perspective, analyzing
2 the secondary route and rail truck alternatives, in the
3 event the preferred route is infeasible would be prudent
4 and efficient.
5 
6 From Eureka's County's point of view as a potential host of the Carlin route, the secondary backup
7 plan, DOE's decision-making process of Carlin as the backup route is unclear. If they say we're just studying Caliente
8 and we're going to work it whether we go to the north or
9 the south here, are we no longer the backup plan, or are we
10 the backup plan until a transportation record of decision
11 on that is issued and they say, okay, I think we've got a
12 real one? It's very confusing.
13 
14 Some final thoughts: DOE has resisted
15 acknowledging that its current low level waste and
16 transuranic waste shipping programs are legitimate subjects
17 of study for the purposes of anticipating how DOE will
18 handle transportation of high-level waste and spent fuel.
19 DOE should encourage AULGs to use oversight funding to
20 develop an understanding of DOE's existing nuclear waste
21 transportation practices and regulatory framework.
22 Until a supplemental EIS is completed on security issues,
23 there is no rational basis for a decision on the preferred
24 mode of transportation or preferred routes. Absent
25 decision on mode and routes, impacted jurisdictions cannot
be identified and costs to prepare these routes cannot be estimated.

Long range planning for us is extremely difficult. 180(c) is not a panacea. It will not be available, I guess, until three years prior to the first shipments. The amount of funding unpreparedness is unknown at this time. Knowing neither the risks nor the resources available to offset these risks makes long-range planning quite difficult. Funding needs to be based on total impact as being under the draining end of the transportation funnel, from our point of view.

And finally, our challenge as affected units of local government is to understand the impacts, to weigh the burden of risk and responsibility imposed by the county-- excuse me, imposed upon the county. To develop a plan to respond to those burdens, to get DOE to compensate the counties for the cost of implementing the plan for the duration of the shipping campaign, and to implement the plan for the duration.

Thank you. And, the next speaker is George.

McCORKELL: Good afternoon. I'm George McCorkell. I'm here representing Esmeralda County. I'm going to speak very briefly about our Central Nevada Community Protection Working Group.

As you know, DOE has designated the Caliente rail
corridor which has a significant impact on Esmeralda County regardless of which alignment is selected. The current corridor is adjacent to much of the eastern edge of Esmeralda County and is sandwiched between the Esmeralda County Seat of Goldfield and the Nellis Range Complex.

In coordination with DOE, Esmerelda, Lincoln, Nye Counties and the City of Caliente have begun the formation of a multi-jurisdictional working group. We're pleased to report that the efforts we have made thus far to address Yucca Mountain transportation safety and security concerns have been very effective. The process of working together is allowing us to identify concerns which we hope to address on a cooperative regional basis, as appropriate.

We're not to the point of addressing these concerns. In fact, we're just beginning the processes of identifying them. While some are intuitive in nature, some are not, we plan to get to the point at which we can, through cooperative agreement funding from DOE, provide the information and potential solutions to the Department to address the key transportation concerns we will be faced with. The culmination of a cooperative agreement between DOE and the jurisdictions in the working group is essential for us to be able to address the concerns we face.

Thus far, we feel good about the success for multi-jurisdictional effort and the encouragement we've
However, there are concerns Esmeralda County will be unable to address without cooperative assistance from DOE. We are unable to tell at this time either what all the concerns will be or how long it will take to address them. The process of identifying our concerns and then addressing them is of key importance to us at this point. And then, lastly, just based on the success of the cooperative agreement they initiated with Nye County several months ago, we're encouraged that DOE is willing to meaningfully participate with both jurisdictions and experts who know the area and the issues best.

So, thank you. And I think Mr. Baughman is speaking next on behalf of Lincoln County.

BAUGHMAN: Thank you. My name is Mike Baughman, here for Lincoln County.

And, I believe on the table in front of you you have a copy of our presentation. You should also have, if you could bring it to your attention, a copy of a bibliography of sponsored research. It was a document placed on the table in front of you as well that I'm going to refer to briefly when we go through this.

Let me just begin by pointing out that the Board of Lincoln County Commissioners adopted Resolution 2001-01, which indicates that shipments of high-level waste and
spent nuclear fuel will be transported by rail to the
maximum extent practical. So it is the official position
of Lincoln County that rail is the preferred mode.

If necessary, shipments by truck, and we do think
there will be some shipments by truck, but if it is
necessary to ship by truck, that those shipments should, to
the minimum extent possible, use public highways and to the
extent possible avoid transit through communities. Perhaps
along those lines, I think the County has always been quite
interested in the Chalk Mountain route because it does
minimize distance traveled on public highways.

Two very important points that the County
Commissioners adopted. One is to be able to identify and
maximize any potential infrastructure and economic benefits
associated with the entire repository program, but in
particular with transportation of spent nuclear fuel and
high-level waste.

And then also, commensurate with their
recommendation regarding rail and truck transportation,
that any measures, or all measures be taken to minimize the
impacts associated with this, and particularly risks
associated with the transportation.

I would note that all three of the Caliente, all
three of the switch points that are associated with the
Caliente corridor, rail corridor, originate in Lincoln
1 County. One of those switch points originates within the
2 City of Caliente. An alternative switch point originates
3 about three miles east of Caliente and then the third point
4 is actually out in the county general over towards Utah
5 state line. But all three switch points are located
6 within--and Caliente rail corridor always originates in
7 Lincoln County.
8
9 Key safety concerns and security concerns. One
10 of the questions that we were asked to address, and I just
11 listed two here. And everybody touched on this briefly,
12 but basically our position is is that any delays by DOE in
13 making decisions regarding transportation and implementing
14 transportation planning may impede pre-shipment risk
15 management and the effective ability of mitigating, if you
16 will, at minimizing risk. And so we as well are very
17 concerned about potential 12th-hour decisions.
18
19 With having said that, I think we commend DOE.
20 We commend Dr. Chu for going forward with the beginning of
21 transportation decisions, something we've been encouraging
22 them to do for quite some time. And I believe to her
23 credit, it has a lot to do with the organizations she set
24 up and the focuses they are beginning to put on this key
25 issue.
26
27 Another key safety and security concern deals
28 with inadequate training and lack of availability of
1 equipment for emergency first responders and emergency
2 medical personnel. And, we would note that that lack of
3 training, that lack of equipment, will have the potential
4 for exacerbating risks in the event of an accident or need
5 to respond.
6 A little bit about the county and the city and
7 the work that they've undertaken since 1984 in this
8 program. The county and the city have undertaken about 70
9 sponsored research projects. This bibliography of
10 sponsored research provides a listing of those for your
11 review and information. You will note on page 7, for
12 example, there are a variety of studies that were done
13 concerning transportation, some fairly recently. Page 10,
14 I'll just strike your reference to that--take your
15 reference to that. We've actually engaged the University
16 of Nevada, Las Vegas in conducting independent risk
17 assessment of both rail and highway alignments,
18 alternatives in the county.
19 And so, there has been a great deal of work done.
20 That work is available to this Board if you chose to look
21 at it. That work was used by the county and the city in
22 developing their comprehensive impact report that was
23 presented to DOE a couple of years ago.
24 Unanswered questions. We were asked to put on
25 the table, if you will, some of our thoughts about missing
information areas where we would like to focus our attention. And, this Board has over the past several years made innumerable recommendations to DOE. And, I would suggest to you that this Board has played a very key role in influencing DOE's decisions about how they spend their resources, where they focus their work.

And, one of the issues we would lay on the table is is that—to basically pose the question, and that is how does the public health and safety benefit of DOE spending to further reduce uncertainty in repository performance compare to the potential public health and safety benefit of DOE spending to reduce transportation accident frequency and severity? And I think a question that would be very interesting for this Board to take up is is would a shift in spending yield enhanced public health and safety benefits?

And obviously, what we're looking at here is—and I did a very quick backup of the envelope analysis looking at the final environmental impact statement. Looking at the sources of death in the repository. Fatalities. And, I don't even have any idea at this point whether this is accurate because it was done very quickly. But let me just tell you in summarizing all those sources in the EIS, but I could identify for the repository we're looking at anywhere from six to 12 people. And that depends on cool repository
versus hot repository, those types of things.

If we turn our attention to transportation, at
the national level we're looking at 13 to 21 people.
Within the State of Nevada, we're looking at anywhere from
two to eight people.

Now, I suggest to you that transportation
certainly at a national level is a greater source of
concern from a public health and safety standpoint than the
repository, perhaps. And, when we spend tens of millions
of dollars, perhaps hundreds of millions of dollars, to
reduce in very minute amounts the uncertainty associated
with repository performance, it yields a commensurately
very, very small benefit in terms of public health and
safety, in terms of death.

If we were to take some of that same amount of
resource and plow it into the transportation system to
either enhance the safety of rail and/or highway, we could
have remarkable, perhaps, changes in some of the
transportation numbers.

And, I threw that out as food for thought.

I would also note in going through these numbers,
the long-held presumption which we in Lincoln County hold
dear, that rail is safer. The national statistics show
that. You need to know that the EIS would tell us that in
fact rail, largely because of the maximally, maximum
1 credible accident scenario and the exposure consequences
2 associated with that has a higher number of fatalities in
3 Nevada. And that's also true—well, it's true in Nevada.
4 I'll leave it at that. It's not true at the national
5 level.
6 And so, that begs the question then in terms of
7 looking at rail versus truck in Nevada and being sure that
8 we have a very safe rail system, and I'll get to that.
9 We need to know where one day we will conclude
10 that the direct rail to Yucca Mountain site is feasible.
11 We need that answer soon. We commend, again, DOE for
12 moving forward. They are engaging engineering consultants
13 and others to start this evaluation process. Obviously,
14 our concern is if it's not feasible what's the fall-back
15 alternative. We have rail-to-truck intermodal alternative
16 in the EIS that's in our county as well. And if we're
17 going to fall back to that, we would like to know that
18 sooner than later. Again, we don't want a 12th-hour
19 decision.
20 Continuing with the unanswered questions, getting
21 to this issue of direct rail versus truck and just the
22 rest, the fatalities and all of that. Again, the same
23 question applies. If it's going to cost up to a billion
24 dollars to build a rail line and, you know, and it's going
25 to be problematic or it's going to cost you, take a long
time to build it or it's not going to be available until, 
you know, about 15 years or so before you're done actually 
with your shipping campaign, at what point does the costs 
associated with building the rail line and the 
institutional factors with that, would those resources 
perhaps not be better spent in shifting those over to 
enhance highway transportation system? That might actually 
be ultimately a safer system. We don't know the answer to 
these questions. But we think they are worth investigating 
as we go forward. We're confident this can be done safely. 
But we also think there's an opportunity here to focus 
resources to make it even safer. And we would encourage 
that.

We have some questions about how direct rail will 
be operated. We're very interested in whether we're 
talking dedicated trains or general commerce type trains. 
Shared use with general commerce. Will this 300-mile rail 
corridor be available for commerce? Will it help us with 
our mining industries and others? I don't know. We don't 
know the answer to that.

Will it be operated by the UP or will it be a DOE 
contractor? And then finally, branch line maintenance, and 
by whom? We want to know, you know, kind of how is this 
going to be done and who is going to operate it.

With that I would like to introduce Mayor Kevin
Phillips from the City of Caliente, who will close out our panel.

PHILLIPS: Thank you, Dr. Baughman. Ladies and Gentlemen. My remarks will be brief and more of a summary perhaps.

I'm Kevin Phillips, the Mayor of the City of Caliente, Nevada. Sorry that Mr. Loux left. I appreciate the fact that he kind of gave out the qualifications of the speakers that you should most listen to. He indicated that you probably should listen to the cowboys or those that don't get paid for being here. I'm probably the most qualified. For one, I'm the Mayor of Caliente, for which you don't get paid. Secondly, I have a hardware store which is mighty tough to get paid. And I run a small ranch. Having said that, I hope you will give considerable thought to what I have to say.

Point 1 is just a brief historical perspective of the City of Caliente and Lincoln County. In 1900, the railroad came to Lincoln County and the City of Caliente. And then later to the smallest hamlet in the county of Las Vegas.

Point 2, in 1987 Lincoln County was declared affected by Secretary John Harrington, and the reason was because of transportation. The other situs contiguous jurisdictions were granted affected status through an
appeal of the definition of affected through the Nuclear Waste Policy Act.

From 1994 to the year 2000, the name of the City of Caliente appeared in proposed federal legislation as part of a congressionally perceived solution to the transportation to the national repository. Ladies and Gentlemen, the discomfort of the unknown has really been something else on this. I'm serving in my 11th year as Mayor, all of which time this has been an issue. As affected governments we have studies on every legitimate and imaginable thing, assuming that we are part of the transportation corridor in Nevada. And hence, affected. But the unknown has been tedious, tiresome and wears one out. I have said to the Department time and time again, pick a route. Any route. Toss a coin if you have to. And then just let us know whether we're on it so that we can either go on with life or start doing real work.

The preferred corridor selection in my judgement, after all these years, is a major and significant step forward. It not only gives relief to those of us that are involved in terms of knowledge and knowing, and now focusing on the issues at hand, but I believe it's significant for the advancement of this project for the Department and for the nation.

Now, the jurisdictions on the corridor,
Esmeralda, Lincoln, Nye, and the City of Caliente, are ready to work cooperatively, constructively, with each other and with the Department to find solutions.

Thank you. We're ready for questions.

ABKOWITZ: Okay. Board members. Do you have questions? We'll start with Dan Bullen.

BULLEN: Bullen, Board, and I hope this isn't my only opportunity to ask questions if I can think of something later that I would like to ask.

A number of the speakers basically gave an indication or at least I interpreted an indication, that there may be some economic benefits from the construction of the rail line. And so, could each county either expound upon whether or not there are benefits that they think would be derived from this, besides the short-term, as Les mentioned. You know, come in, build it and then go away. That's obviously a boon or bust kind of thing. Are there other economic benefits that the rail line might bring, and have they been identified, and are they of interest to the counties?

BRADSHAW: Let me take—I know they have some very pointed remarks here also. Nye has looked at the ancillary benefits of multiple use of the rail. We are not particularly adverse to dedicated trains, but we don't want to have dedicated tracks. And, we hope the DOE will
operate this rail in a way that will allow ancillary users within the county, potential people that are there, potential users that have existing businesses and operations now, and also people that would—that that new rail corridor would draw.

We've identified about a million and a half tons of shipping annually along the—in the general area. This would include both corridors, Carlin and Caliente, coming down to Amargosa Valley. Not going down to the I-15 corridor. People that are shipping by truck now and—but were rail available to them, close in proximity to their operations that they have indicated they would be favorable to being a rail customer. And we believe that that tonnage, a million and a half, would double within two or three years of the rail being available, so from that point of view.

Also, there's the taxation issues that would bring some additional tax base. And of course, the worker issue. People have to operate the rail. They have to buy goods and services and there will be a huge infrastructure of ancillary business to service the transportation infrastructure. I'm not just talking about DOE's operation, cash maintenance and all that, but all the QA people, all the people that are going to have to fix and grease and clean and so on. That will be a good benefit to
the region. And I know some of the others have some
comments on that. Surely Lincoln County.

SPEAKER: Les, after that, we're without comment.

BULLEN: Bullen, Board.

Just a follow-up to that question. And it goes
back to the comments with respect to safeguards and
security. I guess the question that comes to my mind is
that, granted, if you picked either the Carlin or the
Caliente route, by the time you get onto that stretch of
track, it's still like a one-way ride to the mountain. And
so, for economic development purposes and also for
safeguards and security, wouldn't it have made more sense
to make this a loop so that it had two routes in and out
of? And I know DOE didn't want to hear the fact that you
want to build more rail, but I guess I was just interested
in the fact that if you made it a loop, then you wouldn't
worry about the Southern California reactors not being able
to have access to the mountain. You wouldn't have to worry
about issues of safeguards and security except for maybe a
30-kilometer spur that would go off to Yucca Mountain and
everything else would be just a commercial rail line like
everything else in the country.

BRADSHAW: Many of the counties, of course, DOE has
precluded that now. They, you know--

BULLEN: I understand that. I just wondered what the
BRADSHAW: We've long--Nye county, for instance, and I think some of the other counties, has long advocated--is going to spend a big amount of money, a billion dollars or whatever on a new rail infrastructure and the country hasn't built something like this for a long--many, many years. Let's make this part of the western regional transportation infrastructure and think NAFDA and think relieving the traffic congestion in California, and think, you know, new opportunities. And a through-going rail seemed to make a lot of sense to a lot of us, but--and we--but you know, there were a lot of pressures against that. I mean DOE only has a mandate to get nuclear waste to Yucca Mountain and that's all they really want to do. And that's all they are mandated to. Unless somebody tells them to do something different, that's what their job is and they are not going to volunteer to build extra spurs into Beatty or Tonopah, into other places unless they get some top-down direction and money to do it. So these issues have been batted around for many years, but apparently those have been precluded at this time.

BULLEN: Bullen, Board.

Do any of the other counties have comments on that? I mean specifically with respect to the issues of safeguards and securities, since that was raised by, I
1 think Abby raised it.
2 MCCORKELL: Dr. Bullen, I just wanted to--I thought
3 that was an excellent question and I probably should have
4 included in my presentation some of the projects that our
5 multi-jurisdictional working group is looking to undertake.
6 That is probably one of our top priorities is to look at
7 those very same issues. So we've already identified them
8 and we're getting ready to put them on the table and
9 prioritize them. But certainly that is one issue that Nye,
10 Lincoln, Esmeralda and the City of Caliente, through that
11 cooperative, you know, this cooperative agreement, would
12 plan to look at.
13 NAVIS: One comment from Clark County. The point I
14 would like to emphasize was the point that Abby made about
15 the mutual aid agreements. Not only county to county that
16 Clark County is involved in, but also multi-state
17 agreements. So, if something happens across the state
18 line, to California and San Bernadino County, Clark County
19 is compelled to respond to an accident in that county.
20 Same with across the border in Arizona and also Utah. And
21 so, the multi-state responsibility, regional responsibility
22 that we have makes us feel compelled to emphasize our
23 affected status regardless of what transportation decision
24 is made. We're also well aware of the fact that mostly
25 truck--mostly rail means some truck. To what extent we're
not sure because we're not sure what decisions are going to be made. And so, we have looked at public safety and emergency management capabilities with truck scenarios, but we've not fully looked at the rail implications. And so, that would be our next step as a county to take a look at what that means for rail. We believe that any costs to respond to, prepare for, plan for, equip, manage in any way, would far outweigh any economic benefit to Clark County. So, that's our formal position right now, without taking any kind of a position on a preference for any route, and to also to continue to emphasize the need to stay an affected unit of government throughout this process until a final determination is actually made.

BULLEN: Bullen, Board.

Actually, I would love to follow up on that with respect to the issues that were brought up with the 180(c) area. Do the counties, and these are obviously the most affected counties, have a level of funding in mind that they think would be adequate to support the 180(c) efforts that are necessary? And I know this is probably very premature because you know you can't apply for a long time, but there's got to be a number that you have in mind and say this is at least a minimum threshold that we think would be adequate to prepare ourselves for this type of activity?
NAVIS: One of the analyses that we did that we included in our impact assessment report talked about just for preparedness alone, looking at $360,000,000 for Clark County. About $2.7 billion over the course of the shipping campaign to prepare and potentially respond to an accident.

BRADSHAW: And, if I could respond. For Nye County as an example, and perhaps this working group will work it out, but certainly we have to remember that you have to get the volunteers jazzed up to go out and respond to that call. I'm not talking about—I mean there may be a truck tip over some day or a train, but the more usual thing is a truck is going to—or train or something is going to break down and there's going to be liquid leak. You've got to get people to volunteer, so we're thinking you have to get a level of expertise and training and capabilities and communications and equipment that will make those volunteers respond. If they hear it's a nuclear waste thing, they're going to be busy. You know, they are going to go the other way. So, a couple million, $3,000,000 or $4,000,000 in the immediate vicinity to gear up and with a minimal amount of paid, you know, paid participants. Most people in Nye County are volunteers. Over 300. And, with some training there may be five to seven, $50,000 a year to maintain that. And that's at a level that isn't at the—I mean the volunteers, the emergency response community would
like much more level of participation, but a minimal. So that's kind of what we thought in the past. But I mean, and we don't believe that 180(c) is adequate at all. I mean from what we've heard. But we don't want to be mixed in to the--I mean 180(c) is good, but it's not going to address our concerns.

JOHNSON: Dan, I just wanted to add one thing. I don't have these numbers in my head, but on our website, www.yuccamountain.org, we have our report that talks about the estimates for the emergency management, regional training facility. And, that has a breakdown, that kind of thing. So the information is available there. That's of course not all, but that's a good start to answer part of that question.

BULLEN: Thank you.

LATANISION: Latanision, Board.

As we've just been discussing, there are some rather clear economic implications for this development. I wondered if the people, your constituents in the towns and counties have expressed in any formal or informal sense their sense of this project? Is there a public sentiment that's clear to you and your colleagues?

BRADSHAW: It's clear to me. They are here today. You've heard from some of them. But there's a lot of people, someone mentioned the uncertainty factor. I think
the Mayor did. The anxiety of not knowing. But, knowing
that it's coming it's like waiting for the train in the
dark or something. You just--people need to know
information, benchmark events, that sort of thing.

LATANISION: Well--Latanision, Board.

Let me be more blunt. Is it a matter of the
public in your communities taking this as being something
they anticipate will happen or are they eager for it to
happen? Or what is your general sense of the public
reaction to this?

BRADSHAW: I think you've got a range of reactions
across the panel, and very briefly, for Nye, people in our
county, many of them are test site workers and so on, we
believe that we can deal with this. If it's going to
happen we can deal constructively with it. But it's that
we need a level of comfort. We need the warm fuzzy feeling
that DOE is going to work with us and that we can get
prepared for it. And we don't really have that right now.

LATANISION: Latanision, Board.

There hasn't been anything like a referendum, a
vote of any sort, a referendum on the issue?

BRADSHAW: In our particular county, no, but there has
been others.

PHILLIPS: In Lincoln County and the City of Caliente,
there has been a couple of referendum issues. Our people
fully recognize that what they perceive to be really--sorry about that. Thought I had a bigger mouth.

In Lincoln and the City we've had a couple of referendum issues. The people support the concept, believing that it's inevitable and that it can be managed, and that we should take advantage to the degree possible.

LATANISION: Thank you.

NAVIS: From Clark County's perspective on that issue, we haven't had any official vote or referendum within the county, but the county commissioners have passed no less than four official resolutions opposing the repository based on consistent survey data over the last 15 to 20 years that shows a 70 percent disapproval rate of the repository within Clark County.

We also have done some more pointed studies and surveys about what particularly is of concern to the public, and the number one concern is, consistently, transportation.

JOHNSON: And, in Eureka County our northern community of Crescent Valley, which should be directly affected by the Carlin route, we have had public meetings over the years where varying local concerned citizens have showed up and consistently asked the same questions and expressed the same concerns, which basically boil down to many of the things that Mike Baughman had in his presentation. Who is
going to own the rail? Who is going to own the track? Who is going to operate? All those kind of nuts and bolts questions of--plus a real concern that this disrupts their way of life, totally.

BRADSHAW: And, you're probably aware that NEI sponsored a survey in Nevada, at least in Nye and some other counties that addressed this very issue, and when asking the question, do you particularly want nuclear waste in your back yard, of course, everybody would probably say, well, if I could get out of it, you know, why would I want that? But, if the questions were similar to this, if it's coming, do you think you should be sort of compensated or offset or you should get something for this? And most people would say, well, yeah. If we have to bear this burden, there should be some offsetting equity come to the county. And so that's the frame of mind that people are in.

ABKOWITZ: Okay, Dick Parizek.

PARIZEK: Parizek, Board.

The lady in Clark County, did I get the number right? Was it $2.7 billion or million?

NAVIS: Billion, with a B.

PARIZEK: And, over what time period?

NAVIS: Over the proposed 24 to 38-year shipping campaign.
PARIZEK: And, that would be only for Clark County?

NAVIS: Correct.

PARIZEK: So, each of the other counties--nothing comes from Clark County?

NAVIS: It's Clark County, all of the cities within Clark County and two tribal entities within Clark County that's a collective member.

PARIZEK: It is likely that other counties would have other needs?

NAVIS: Correct.

PARIZEK: And, I was going to ask whether or not this is transportation only, not connected to the repository part of this, because it seems to me there's going to be permanent jobs. And this didn't include the $25,000,000 hospital we've heard about several times. Obviously there is going to be staff, some are going to be full-time staff. And so how does the full time staff requirements for the repository help out in some aspects of the needs for transportation, emergency responses?

NAVIS: We believe that that is more than offset by some of the other losses we anticipate potentially. Drops in the tourism industry that would lead to job losses in that industry more than outweigh any potential benefit we see from any jobs related to the repository.

ABKOWITZ: Thank you. And, Les, I would like to thank
you and your fellow panel members for both a very
informative and timely, and on-time performance. And,
we'll look forward to working with you individually and as
a cooperative.

And, I might point out, I don't know if the Mayor
can hear me, but Caliente might be a desirable site to hold
a transportation panel meeting in the future. We hope if
we ask you to host that that you would be willing to have
us.

PHILLIPS: Absolutely.

ABKOWITZ: Thank you. We're all going to take--we're
going to take a 10-minute break now. It will be a little
more abbreviated than on the schedule. We will reconvene
in 10 minutes.

(Whereupon, a recess was taken.)

ABKOWITZ: We're going to be entering into the final
sections of our program today, and I notice that we have no
more breaks scheduled, but close to three hours of
material, so this will be interesting.

The next piece of the program is to look at prior
transportation experiences and lessons learned with an eye
on the concept of let's not re-invent the wheel. There are
a number of campaigns that have taken place in the past or
that are going on now that have some similarities to
aspects of what is anticipated should a Yucca Mountain
transportation program become operational, and the planning stages prior to that. And we certainly would like to have an opportunity to hear about those experiences and get some measure of what, if anything, is transferrable to what is anticipated with Yucca Mountain transportation.

Our first presentation today is going to be on the waste isolation pilot plan, otherwise known as the WIPP project, and the WIPP project has been alluded to several times today as kind of the exemplary project in terms of how to do it right.

And, we're fortunate to have Ralph Smith with us today. Ralph has been a central figure in the purported success of that program. As you probably know, WIPP is the only deep geological repository operating in the United States and Mr. Smith has been invited to tell us about both the development and the operational activities related to the transportation system and the movement of transuranic waste to WIPP for disposal. Ralph?

SMITH: After everybody has already talked, I guess my talk is going to be very short since all lessons learned have already been learned and everybody has alluded to them. As Monty Python used to say, "And now for something totally different, you're going to see me do it."

The first thing I would like to do is thank Bob Loux for his kind comments; however, let me clarify
something. During most of that seven-year process it took
us to build a transportation system in agreement with the
states, I often felt, not like an architect, but most like
Mr. Fix-it, so it was a lot different than he described in
his use of the word architect.

One, to know what WIPP is. I know that most of
you probably already know, but let me just go over quickly
what WIPP is and what we do.

I don't like this. I'm a person who walks and
talks and gets amongst the audience, so if I feel a little
nervous up here it's because I don't--my talks are usually
done on the move.

We're trying to clean up the transuranic waste in
this country above 100 nanocuries, and let me say that's a
fairly arbitrary number. But that includes about 6.2
million cubic feet. Right now we believe about 19,000
truck shipments will accomplish that. And, if it's over 35
years, we're probably going to do--oh, there we are. I
like it a lot better. I'm just not comfortable standing in
one spot. I think I grow roots--about 19,000 truck
shipments, and as you'll see in the next slide, we are, if
not the largest, certainly one of the largest type B
container owners in the world.

So let me say right now--go back one. Go back.
That's all right, we'll get to it when we get to it.
We've done about 2,000,000, a little over 2,000,000 miles loaded, probably about 6,000,000 since the project took conception in the mid-80s. We've got about 56,000 drums, 55-gallon drum equivalents, in the ground, 17,000 cubic meters. This shipment, or this number is a little bit short since, as we'll see in the next slide, we have four shipments out of Nevada, not three, and so, you know, about 25 shipments a week and that number changes daily. And, we've been in operation 4.8 years, since March 19th, 99, so we're coming up on another anniversary here pretty quick.

We did have two truck accidents. We were hit by a drunk driver in Carlsbad. A drunk driver was doing between, we believe 80 and 100 miles an hour. He hit the back of our trailer, totally destroyed his pickup truck, and did so little damage to the trailer, we were able to drive it the other 30 miles to the work site, after having passed the CVSA inspection.

The other one was a woman in Andrews, Texas decided she couldn't figure out what a stop sign was for so she ran into the side.

We have, however, taken the drunk driver who was a Texan too, we've taken the Texas magnet out of our trailer so that the drivers don't hit us any more.

Here's the sites we ship from. We've shipped
1 from 13 sites around the country. Some of those major DOE
2 sites and five or six smaller ones. And these are the
3 numbers in yellow of shipments. Like I said, as of
4 yesterday we did a four-shipment out of Nevada Test Site,
5 and those numbers continue to go up every day. And, 2,281
6 shipments. We're very proud of that.
7
8 Here's our TRUPACT, or Type B container fleet.
9 Today we have 107. We're going to get to 111 by the end of
10 the month that will be 109 and we'll get a couple more the
11 end of the summer. And 79 TRUPACTS. The TRUPACTS are the,
12 used to be 14 55-gallon drums and they are used for contact
13 handled waste. Contact handled waste being waste under 200
14 milligrams to the surface. In other words, you can move
15 those barrels around by hand.
16
17 We have one 10-160 B. Right now we have half of
18 it. The other half is owned by the Ohio Field Office.
19 That's being used to ship out of the Columbus site, and as
20 soon as we're done with that, whenever that may be because
21 of legal complications in the State of Washington, we'll
22 take ownership of that.
23
24 This slide is a design for remote-handled.
25 Remote-handled is more radioactive. Still it's transuranic
26 waste. A picture of a HalfPACT. A HalfPACT is just a
27 smaller version of a TRUPACT, and that's designed to ship
28 heavier drums. We have 55-gallon drums that weigh over
1 1,000 pounds. Well, that's a pretty heavy little old drum.
2 And so, using those, we can get virtually more waste than
3 we could if we put them in a bigger package because I have
4 to have 14 drums even if they are empty drums, or damaged
5 drums in the TRUPACT, where in the HalfPACT, I can fit
6 seven. And plus, I reduce the size of that by 36 inches
7 and that's a lot of material. Let me tell you, a TRUPACT
8 is quarter inch stainless steel, 10 inches of high density
9 foam, porous stainless steel. It's the outside package.
10 We use double containment packages. Then you have about an
11 inch of dead space and another quarter inch package that's
12 totally separate. Empty, these things weigh about 13,000
13 pounds. Full, 19,250. So those are fairly heavy.
14 And then, you might recognize this. I had a
15 picture this morning of the West Alley Cask, which was also
16 Three Mile Island. This is a quarter size. This is a 72-
17 B, and I know Kachena talked about building those for us
18 with PacTec. These are for loading three 55-gallon drums
19 horizontally. They are lead-lined and can take up to 1,000
20 rem per hour shipments in there. And, we have, as you can
21 see, 12 of these. When we're licensed eventually to
22 handle, accept remote handled waste, this and the 10-160B
23 will be the packages of choice.
24 Okay, on the first slide with the sites, I didn't
25 show you all the routes. We have about 4,000 miles of
1 route. The little black dots are, a couple, but not all of 2 the sites, we've closed. And, of those 4,000 miles of 3 routes, the ones that are really going to be open for a 4 long time—remember, I've got about 75 percent of the waste 5 west of the Mississippi. But really I have in about five 6 or six sites most of the waste. And most of it is in Los 7 Alamos, Rocky Flats, which should be done by the end of 8 this year or it could be into early next year, INE EO, the 9 environmental lab in Idaho, in Hanford. And Savannah River 10 is the other big site east, with Oak Ridge having the most 11 remote-handled waste. Those sites. So basically the 12 corridor that leads from Savannah and Oak Ridge to WIPP and 13 then the corridor from Hanford down. The west to the west, 14 and the midwest and the northeast, out here I probably have 15 less than 300 shipments. In the midwest I probably have 40 16 shipments, total, into the northeast about 60 to 65 17 shipments.

So when we talk about, you know, affected parts 18 of the country, basically if you take this route, the route 19 from Hanford down, that's what I'm going to affect long 20 term, that's where most of the 19,000 shipments, probably 21 18,000 plus of those 19,000 shipments are in those two 22 routes. And, along those routes we do have Atlanta, 23 Georgia, Houston—-I mean Dallas, Texas, Albuquerque, New 24 Mexico.
One of the things we're trying to do is trying to get away from going through Los Angeles, as we did with Las Vegas. Our desire would be to not ship through large cities. However, remember that 49 CFR requires us to use the interstate system to the most extent possible if it's higher route control quantity. And we've told the states that we would consider each shipment as if it were higher route control quantity, and I'm not going to get into that whole ball of wax. But with the State of Nevada and California we're able to ship on non-higher route control quantity roads because they were not higher route control quantity.

Likewise things coming out of Lawrence, Livermore will probably use this 99 and 58. We've already talked to the state about that, ruling on that for the last 10 years. And unless we get into higher route control quantity we're trying desperately not to, you know, have to go through Los Angeles and Las Vegas.

So, what works? I've broke it down into kind of natural breaks. Advance planning. What works is long-term excellent state and tribal relations. This business is 110 percent of relationships. When we opened Savannah River, Interstate 550, which is a spur around the southern part of Augusta, just opened, just before we made our first shipment. In two days because of the relationship we had
1 with southern states, Georgia and South Carolina, we were 2 able to perform a re-route. Instead of taking the waste 3 north through Akins, South Carolina, to Interstate 20, we 4 took it around the south part of Augusta on Interstate 550. 5 And without those relationships that simply would not have 6 been possible. It would have taken us months, if not a 7 year. In a lot of places, they tell us it's a year to 18 8 months to get a route approved. But because of what we're 9 shipping and because of our relationships, we in states saw 10 that it was better, shorter, less impactful, better roads 11 and re-routed. That's what this business is about. 12

Talking to folks, getting consensus. 13

You know, I'll tell you what. The seven years I 14 spent putting the transportation system together basically 15 most of that was talking to the states, the tribes, the 16 local communities. When we opened the Idaho route I went 17 in every county and community of size between Idaho Falls, 18 Idaho and Carlsbad and talked to the City Councils, the 19 Mayors, the state and local politicians, just everybody. 20

And we've trained. Safety. That's the safety 21 protocols we have. We--and we'll get to the CVSA 22 inspection on the next slide.

Emergency response training, let me say that we 24 have done just short of 30,000 first responders in medical 25 personnel combined. We've trained in hospitals, we've
trained EMT's, fire, regular fire, volunteer fireman, police, state police, sheriffs. You name it, we've trained them. And we've trained in places that sometimes were not absolutely on our route. Right now I'm training in Los Angeles. And, I said, well, gee, I'm not going to be shipping there. Some of this is good neighbor stuff. Our training is for a logical response to a HAZMAT incident. Well, what we found over the years is that it is transferrable. That knowledge and that training, not only to a HAZMAT, but to any incident. And so we've been training both first responders, command and control, just a number of things, and trying to train along the routes, or within a reasonable distance. When somebody comes to me with a reasonable request and says they need some help, you know, this is about give and take between the states and tribes and DOE and about building a reputation of working together. And that's what we've tried to do.

We've done 29, almost 30—we've got the 30th exercise, full scale exercise. These are all major exercises involving just tons of people. We have one here in January—year before, I believe, up on the test site. And, we have had a lot of lessons learned. We've had several failures there, which these are state exercises that we support.

And, you know, I always tell people that one of
the things we'll do is we'll tell you where the ends of the earth is. If you want to run off of it, we're not going to stop you. But we certainly are going to keep telling you you're about ready to fall off the ends of the earth. And, in a couple of cases people had decided the edge of the earth, that was fine with them. They would run off of it. And public information. Until 9-11, we used to do a lot of public information. And I mean take our roach, we have a special trailer with TRUPACTS with the side cut out of them so you can see the inside. You can see the waste. And we would go all over the country. I mean I've spent 10 years at this. The first seven years I traveled more than 200 days a year. And we went every place.

Since 9-11, the problem has been any of these kind of shipments you don't want to have the kind of publicity that goes with them. And, it's not that we want to make them secret. It's just that you don't want to invite some person that looks at things differently than the rest of us who think that these may be a target for their activities. And we all know that's terrorists and that kind of stuff. And so, basically, at the request of the states, we've toned down the public response. Certainly, we're still willing to do it. The states, however, have been less receptive because of concerns about security and that kind of stuff.
Transportation. Cooperative development of the transportation plan, which again is the states. Treating all loads alike. Again, this is all as if they were higher route control quantity.

The thing I don't want to do is have, in the middle of the night a driver, a truck driver--and these are good people. These are the top of the truck driving, and I'll talk about them in a minute--having to make critical decisions. That is not what you want to have done. Everything is treated the same. The routes are the same, so we can train them and teach them as best as humanly possible about what to do and not leave critical decisions until 3:00 o'clock in the morning on a dark, snowy night in the middle of Wyoming. You get them every once in a while, still, but we're trying to cut that down so that the safety factors are maximized and the security factors are maximized.

TRANSCOM. We hear about TRANSCOM--I could tell you, the first seven or eight years I was in DOE, TRANSCOM was the only issue that I couldn't get my arms around. It literally would not die. We went through a computer or internet-based TRANSCOM system a couple years ago, and virtually, and I know Thor had a couple of problems. But we're about 98 percent positive on our new TRANSCOM system. It's rare when we have problems with it.
And, it's a far-sight better--used to be whole banks of modems and I used to tell people they were wooden boxes that were that old. And, they would fail all the time. You would get into a system and it would dump you out. You know, five, six times an hour. Then one day, and the next day it would work fine for three, four hours at a time, and it wasn't worth anything. The new system, if you can get in, and you guys probably just haven't paid enough money--the system works wonderful.

And literally, we've just--but this is the underpinning of the whole program. Because if you can't tell where a truck is and you can't talk to the truck when you need to and the truck can't tell you what they are doing, you got a problem. So TRANSCOM has been just wonderful.

We, as Tri State, and John, I know, I really, I felt sorry for him this morning, felt like coming up here and doing finger puppets for him. We--there has been a number of security enhancements to the trucks. Let me tell you, though, that because of what we did in this, when 9-11 happened, we were one of the first fleets to come back and be able to ship. And when all these things, the Homeland Security put on top new requirements, we had already had those for years. We have all of our drivers background checked by the state police. And that's not only their
driving record. That's their criminal record. Every year the whole company, secretaries, management, mechanics, everything. So, you know, from the get-go. They are all drug and alcohol tested.

So, anything that Homeland Security has thrown at us so far has been a no-brainer. We just, we've already, usually have taken care of it. And it has a lot to do with the states, too, because the states, I'll tell you, they were absolutely—and the tribes, were absolutely a party, the three parties in making this plan something that's working and it had to be tweaked very little in the last five years.

One thing we're looking at and we're trying to do more was tandem shipments. We're not convoying these things, per se, but certainly, as we get into one of the last slides we'll talk about hours-of-service laws that just went into effect, and we believe those are going to negatively impact us. Especially during the winter. We have shipments to the west and, go figure, you get snow. We were stopped yesterday. The Nevada Test Site shipment got into Arizona and there was snow up around Flagstaff, which I know is a surprise to everybody. And so, they were stopped at 1:30 in the morning. Finally got started again about 8:00 o'clock this morning. So we have that. And when you've got these shipments, they have to be
1 watched on a 24-hour basis. We all understand we need a
2 place to put them in safe parking. And I know they did a
3 fairly good job of talking about safe parking this morning.
4 So I have to have a driver up. With the new
5 hours of service laws, if I get one truck up there, I can
6 run that puppy out of hours. And, when they are out of
7 hours, those things cannot be watched. I have no,
8 literally no way, of watching those because those guys have
9 got to go to bed. It's a federal law, and I'm sure not
10 going to tell my folks, oh, go ahead and disobey the
11 federal law. No problem, you know. I'm not going to jail.
12 They are not going to jail.
13 So that could be a major problem to us and the
14 states and we're, you know, it's only since January 4th, so
15 we're still in the learning curve of what that's going to
16 look like, but we really think it's going to be a problem.
17 Points of origin. Every WIPP truck point of
18 origin is inspected by a state entity, usually the state
19 police or a state transport police, to CVSA Level VI.
20 CVSA commercial vehicle safety alliance, what this is is a
21 zero defect inspection. Light bulbs out, anything, we'll
22 put that out of service. That means when we start from
23 Nevada Test Site, from Lawrence Livermore, from any place,
24 that truck is as close to perfect as we can get it. And
25 it's time after time. It's not just one--it's every time
they go up there. And since we've done 2200 of those, they were done 2200 times.

Also, Colorado, by state law, inspects every one of ours every time they come in the state. Also New Mexico, I'm trying to think of the reason why, but I can't, so--but New Mexico does 100 percent of our trucks for their inspections when they come into their state. So, something coming out of Hanford or Idaho is inspected at least three times for these same standards. Understanding that two of those happen after the trucks have gone 800 or 1,000 miles and then another one has gone even farther. And they still pass those kinds of inspections. It's remarkable. The transportation system we have literally is the best in this country. And we are pouring millions of dollars into it. But, we're pouring it into a good thing. Safety is the number one thing, and I'll show you in just a second.

States activities really mirror what we did. We have trained just a ton of state employees, usually, like I said, highway patrol or state transport police. Drivers checks have been done by the states. Response, we've done all our coordination outreach. And consensus polling, we've worked with the four of the five major regional groups. The only one that differs between Gary and me is WEIB. Western Interstate Energy Board. And, I do WGA and that's by choice of WGA, so whatever.
Okay. We'll get right down into here.

Mobile contracts. Right now I have two trucking companies that work for us. They are both contract truckers and they use dedicated equipment and dedicated drivers. What that means is when they put a truck-tractor on my job, they don't use it any place else. Same way with drivers. The drivers' standards for our drivers are so high that, literally, I'm talking about the cream of the cream of the crop. If you've ever had a DUI, don't even apply. Don't even worry about it. You're not going to get hired. If you have a number of tickets in your own car. don't even apply. We're not interested in you. These people have at least 325,000 miles. Most of our drivers have well in excess of, you know, 800,000, 900,000 miles. These are very good drivers to start with and then we give them six weeks of training of top of that.

But one thing I wanted to point out, this is not a race, Guys. We pay our drivers salary, not by the mile. Most truck drivers in this country, the reason they go so damn fast is they are in a hurry to make money. Our trucks, first of all, are governed at 65 miles an hour. That is checked when they get back every time so if somebody has decided they were going to play the game on the computer and game the governor, they will get caught and they will be working elsewhere. And there's no
incentive for it. Whether it takes them an extra hour to
get in or not, like the one last night, is not--doesn't
reflect in their pay, at all.

Also, safety incentives. We pay--if a company,
and this is by company, has no accidents during the year,
then every driver in that company gets 15 cents per mile
for what they've driven. That can mean, and usually means
somewhere around $6,000, $7,000 at the end of the year.
Pretty nice little kick. If they have one accident, they
get 10 cents, and that's for everybody. This is a peer
pressure deal. If the whole driving fleet has one
accident, they get 10 cents. If they have two accidents,
they get zero. So you can imagine the incredible pressure
on everybody to be absolutely zero accidents.

And again, I don't mind paying them 15 cents a
mile. Matter of fact, I enjoy it because that means that I
can come in front of an audience like this and say, Guys,
we've done everything we can to keep these safe. We're
doing everything we possibly can think of to make sure that
the safety and security in this country for these shipments
is being addressed. But everything is two-person driving
teams. Once they start, as John was saying this morning,
the only reason they stop is potty breaks and diesel fuel.
Continuous monitoring of shipments by the
drivers. In other words, when they are stopped, somebody
has got to be up watching that shipment. These things are not just left out there on their own devices.

And strong working relationships with DOE and DOE's contractors. At WIPP, we're about 1,000 people, with 45 DOE people down there and the trucking companies and the management operating contractor, which is the Washington Group, as well as the other contractors. We treat this like a big family. We share equipment amongst the trucking companies. When there's a problem, there are trailers assigned to each company. Remember, the trailers are mine, the TRUEPACTS are mine, the tractors are Tri State's. Or CAST's. I don't own tractors. And I don't own drivers.

Drivers are their employees. But, we treat this like this was all of our work, not just a CAST problem or a Tri State problem or somebody else's. This is everybody's at WIPP's program. And, failure in this is failure for the rest of the program.

And then challenges. I hate to say what didn't work. That sounds way too negative. There are some things that don't work, but let's put it this way: One of the problems--and Gary is going to have--this is going to be a major one. And I think he's got a hell of a higher mountain than I did, shipping schedules.

You know, right now we've got various sites that are shipping and some of them want to be treated better
than others or get more resources. And they are all DOE sites. We control the people. I can't imagine the food fight we're going to get with the utilities when they all say, okay, tomorrow you be at our front door and you and I have enough resources to go to the two of them, much less all of them. That will be a food fight. And that's something you've got to address pretty quick, because it literally will drive you crazy trying to run shipping campaigns when you're running them nationwide.

Inconsistencies at the shipping sites, we've already talked, you know, I'm a nosy person. I always have been. And, I also deal with every state, even though there's only 30 states that I deal with myself, because of the regional groups—I deal with every state in the country. And some of the folks that come to us, like say Maine, Maine Yankee, and ask us about characterization and that kind of stuff. And one thing we recommended they do was, you know, it would have been lovely if years ago everybody videotaped all the loading of the casks so we know what the hell is in there. They didn't. So we have no idea. So sometimes we've got to open the stuff up. Well, opening our waste is the problem. Opening their waste is insanity.

So what we've done is—and what Maine Yankee is doing was videotaping everything it loaded with a
1 commentator because they sent us videotape and it has them
2 loading stuff, and then it had 10 minutes of nothing. I
3 said, you know, I can only imagine a regulator saying, what
4 the hell were you doing in the 10 minutes? You know, what
5 are we missing here? It's like 19 minutes of tape missing
6 from--you know. So, we went back and told them, you know,
7 you guys need to have a commentator and you need to make it
8 continuous, or if you've got breaks in there you need to
9 say we were repositioning this, or we were doing whatever.
10 But you've got to get a commentator so you can tell them
11 what the hell was going on.
12
13 And so, that would make the waste acceptability a
14 lot better because you will know 10 years, and as I told
15 the gal who was up there, 10 years from now you may be sued
16 as Maine Yankee. How are you going to prove that the QA
17 was done; that the stuff was loaded as you said it was
18 loaded? If you've got videos--it's like my trucks. Every
19 single tractor I have has has continuous loop video in the
20 front. If you run in front of me in a car and stop fast, I
21 can go to Court and pop that little old puppy in the VCR
22 and show that Judge and jury and everybody else what you
23 did. And it's proof, very invaluable. We've almost been
24 hit twice by head-on from drivers on four-lane roads and
25 they were in the wrong lane. At least I hope they were in
26 the wrong lane. And, we didn't do anything with it, but
certainly, it was nice to see, you know, that our drivers
were taking responsibility and that kind of stuff.

Procedures, you know, we had, it just so happens
that the accident we had when we got hit by a drunk driver,
the back TRUPACT, which was No. 157 was found to have some
blue pseudoallele active contamination in it. And, the
report is coming out on that today or the next couple of
days. Basically what we believe happened was there was a--
the lid was improperly torqued on a drum. And that should
not happen. I mean this is a procedure that every site
has, understanding that every site may have different
drums, different manufacturers, but when those drums come
in their Type A container, they have specifications of how
they need to be handled and sometimes people need to get
together with their specifications. And it cost a heck of
a lot of money, time and grief because we had to send that
thing back to Idaho. There's no way we can open it. We're
not prepared for radioactive material. Understand, we are
a site. We have no radioactive material free on-site, so
we can't take radioactive contamination. I know people
just--that's kind of anomaly.

Also, quality assurance. Quality assurance has
got to be the big thing, Guys. If you don't, if you can't
be sure you're doing everything right, NRC is going to get
you sooner or later. We have an NRC agreement for our
TRUPACTS. If we ship prohibited items in there or we do things wrong on a consistent basis—and I don't think it's going to be terribly much consistent—a couple times they'll probably get us, they are going to shut us down. They jerk license and say, until you come up with a way to prove to us—and we've got to prove to them. They don't have to, you know, as long as they sit up there in Washington, that you're never going to do this again, you're not shipping. So we're constantly working with the sites on how to make this better because this is a real challenge.

We did put in here, and I'm not trying to ping DOT. Lord knows, I wouldn't want their job with this. Although they've not made our job any easier. They send out these regulations, they send out a little blurb—I'm pretty much done—and they didn't give us enough information.

Impact of routing. New Mexico, having these things sit along the road and we have sometimes seven of them sitting up near Trinidad, Colorado. Probably is not the best thing. And state escorts, from our point of view, and for waste we're doing, is pretty much not a good thing. Okay, we also have problems with shipping containers. Mostly that's caused by internal stuff where people say you're not shipping, you don't need the
containers. The lead time on these, even when you think that they are just soda cans, is huge because they are part of QA and building a TRUCPACT may seem like a very easy thing, but it's really not.

And then delivery just proves to be a nightmare. We're still getting TRUPACTS almost five years after we started. Obviously we probably needed those during that five years.

Carrier contracts. Unfortunately I've got two five-year carrier contracts that expire the same day. Next June I could virtually have four contracts, two new ones, two old ones, working, driving the same stuff the same days for 30 days as we go through a period, and it's not a great thing. We're going to fix that.

Also, fixed price contract with no escalation. Fixed price was probably a bad idea because we had no idea what the costs were going to be. Literally, this kind of shipping never was done at DOE. There's no cookbook.

And qualified drivers, it has been literally, because I'm taking the top one or two percent of drivers in Carlsbad, New Mexico. Think of that now. Carlsbad, New Mexico. It's really, really, really hard to get those drivers. It really is. And, keep them. You know, when we're paying top wages. Literally, we're paying the top of the wage scales and we're giving them bonuses on top of
that. And other benefits, and still a nightmare to try to get drivers.

I think that's the last slide, right? That one you can throw away.

Anyway, if anybody needs to get hold of me, there you are. Questions?

ABKOWITZ: Okay, thank you, Ralph. We're going to start with Dave Duquette.

DUQUETTE: Duquette, Board.

I'm a little confused, probably because I wasn't listening carefully enough, about your drivers. Do your drivers spell each other? Is one sleeping while the other one is driving?

SMITH: Right.

DUQUETTE: And so it's a continuous cycle. They don't pull over except for anything, necessities?

SMITH: Right.

DUQUETTE: Okay, thank you.

ABKOWITZ: Dick Parizek.

PARIZEK: Parizek, Board. On the accidents, the two drunks I guess you mentioned, is that charged to the driver as an accident?

SMITH: No.

PARIZEK: That was not on his record or her record?

SMITH: Nothing we can do about it. Well, one was
drunk and the other one, as I tell the story, and you've
got to remember, I embellish things. I know that's a
shock. One was a 19-year-old, this is the second DUI, this
drunk. The second one was his sister on a beer run for him
in Andrews.

PARIZEK: But, I'm sorry--so the record remains clean.

SMITH: There was nothing we could do about them.

They were both their fault, totally.

PARIZEK: Other than the TRANSCOM system, because I
think I saw that once years ago in a truck that was needing
work, sitting down in Carlsbad. What other upgrades have
been required? I mean you started out with equipment that
was giving you some trouble when you're doing new things or
replacing equipment. This thing that we heard yesterday by
Budnitz. We're not going to be flying the same airplane
for 30 years. You haven't been flying the same truck for
four years.

SMITH: Not close. One thing we did was when we first
started, when we were first shipping, we had a different
contract. It basically said that you would replace trucks
after 250,000 miles. You replace tires and brakes after
100,000 and everything. Well, we did that. And it cost us
the first time about $9,000 a tractor, and the trucking
companies loved us. They got brand new tires off of our
trucks because 100,000 miles on a truck tire is brand new.
What we do now is say two percent down time. If a tractor or any of its components started seeing two percent down time, we inspect that truck and go in and haul that thing out of there and put something new in. And so we don't care. You can keep a tire for—we can't keep it forever, obviously, because we have standards on that, but you know, get the use of miles out of the tires, get the use of miles out of the brakes, whatever. We've literally had tractors that within the first 1,000 miles started to have problems and never have got over it. They were probably Friday to Monday tractors. And trucking companies have gotten rid of those within months after they got them, brand new tractors.

PARIZEK: And maintenance, we've heard about the importance of having maintenance built in, you know, to the whole system, and in your case you could maintain before you leave and I suppose when you get back, but enroute, what happens if something breaks down? What's the typical situation? You drive up to Texaco and blow the horn or--this is kind of unique stuff, I would think.

SMITH: Well, it is because if we've got a load on--empty, we can do whatever--pretty much whatever we want. With a load our central modeling calls the state, explains the situation. The trucking companies usually know where there's facilities available to fix them. And, in some
cases, the state will come out and escort us. In some cases they just allow us to get on—it'll be an off-route, an off-route with the state's concurrence, and that kind of stuff. Again, it's all about communications. If you've got a problem, you've got to tell the states what's going on. We've had a number of them. I mean you can't have heavy equipment like that without having a number of incidents, but nothing serious. It has just been, you know, tires here or a generator there, or, you know, just the stuff you would normally think of with your automobile, only the truck is a lot bigger, lot more stress.

PARIZEK: One more question. You own the TRUPACTS, so do you have maintenance on the TRUPACTS?

SMITH: Yes, I do.

PARIZEK: Where do you do that?

SMITH: In Carlsbad. EPD is a subsidiary of Washington Group who builds a number of the TRUPACTS, does the maintenance on them, too.

PARIZEK: You agree with the need for that? I mean--

SMITH: Oh, absolutely.

PARIZEK: --that's a very important element.

SMITH: Well, under NRC they were required—they are required to go through a yearly maintenance and re-inspection earnings. So instead of shipping them all over the country, it's nicer to do it rather close to home where
we can control and look over the shoulders of the folks that are doing it for us.

PARIZEK: Thank you.

ABKOWITZ: Dave Diadato.

DIADATO: Diadato, Staff.

I'm thinking about your numbers in terms of your total shipments that you need to do and the mass and the volume that you need to ship, and thinking about densities of 1,000 pounds per 55-gallon drum and that kind of thing, and you started to talk about some serious weight, maybe even more than Yucca Mountain. I don't know if that's true, if it's always 1,000 pounds per 55 gallons. But the question is, was there ever a consideration of this rail idea? Did you ever--do you look at rail initially and then why did you reject it, ultimately?

SMITH: We looked at it a number of times. Matter of fact, we're in the process of re-looking at it. I think personally, and this is from my experience, so this is not DOE and I'm sure I'll be shot by other folks in the room. Rail has got two major fortes, size and weight. My trucks, except for the 10-160B are all legal weight trucks. They are all under 80,000 pounds, size, the height, the length, there's nothing that is over-sized for road shipments. And so, if--I don't know if it provides us any advantage to go by rail, but that's, again, my humble view of the shipping
world. We are looking at rail. We do know eventually
we're going to have to ship some things by rail. They are
just flat too big to--whatever.

But every package, every TRUPACT III that Ian
talked about being built, PacTec is building up in Tacoma,
will be truckable and even though overweight, probably only
weigh about 95,000 pounds, which is really not a big deal.
It's only when you get 110,000 or 12, where most states
start having a heart attack and their bridges and that sort
of stuff, have a problem handling. So we're well within
what we can ship, and like I said, the TRUPACTS and the
HalfPACTS, even with 1,000 pound drums, are never over
80,000 pounds.

DIADATO: All right, thanks. And then the second
question was, you had seven years of going and talking to
people and I presume during that time there's some
listening, too. So the question I have is what are the
three most common questions you were asked as you went
around during this seven-year period, communicating with
people?

SMITH: Well, they wanted to know what the waste was,
which is trash. Except for plutonium, americium and the
daughter products. Our stuff in most cases--you'll never
see ours placarded for the hazardous material because it's
too little. Okay, even if it was--even if there was no
radioactive material in there, the amount of hazardous, 
other hazardous material just wouldn't get it there.

How is it going to get to where it's going? So they want to know the routes. They also wanted to know the mode of transportation. And, they want to know if it's safe. How we answered that—and let me tell you, the most important thing we've ever done is train 30,000 first responders. They don't believe DOE people. I am totally shocked, I mean, I rate it right there with used car salesmen and Martha Stewart. I don't know, it's—but when we train the first responders, all 30,000 of them, in all these communities across the country, and they get to see this stuff and touch, feel, whatever, when the Mayor of the city asks them, what do you think about true waste, my problems are usually over. Guaranteed.

I went to Barstow last week. This is my second week, and for all these Las Vegas people I'm out here spending money two weeks in a row, so I'm supporting your economy—went to Barstow last week and you know we had had some flap about us shipping starting two weeks ago, and that will be over next Friday since we've done the fourth shipment yesterday and the fifth tomorrow, two more next week. At least of the first set. And, they've been trained. Matter of fact, we've done a whole lot of training in California and Nevada. We had already done it,
1 but we did it more since Diane Feinstein and her letter to
2 Secretary Abraham, and literally, the police chief, fire
3 chief both got up and told the Mayor not a problem.
4
5 End of my story, end of my discussion over it.
6
7 DIADATO: Thank you.
8
9 ABKOWITZ: Dan Metlay, you have a quick question?
10
11 METLAY: Dan Metlay, Staff.
12
13 I assume you've submitted to NRC regulations
14 voluntarily. Is that correct?
15
16 SMITH: We're not covered by NRC. Our shipping--the
17 only thing with NRC with us is the Type B containers.
18
19 METLAY: Okay, just the certification--
20
21 SMITH: Just the certification. We do not follow NRC.
22
23 Oh, I'm telling you what, there probably isn't a dental
24 floss difference between what they require and what we're
25 shipping. Probably, we're--as most people will tell you
26 about our program, we're extra-regulatory for everything.
27
28 ABKOWITZ: Ralph, I have the final question here, and
29 I recall reading somewhere along the way that at one time,
30 and maybe perhaps they still do, DOE has something called,
31 I believe it's a Senior Transportation Management Forum or
32 some terminology like that with the idea being that
33 transportation managers from various campaigns would sit
34 down and work together and share experiences, and, you
35 know, break bread and all that good stuff. Does such an
SMITH: No and no. Well, I don't know, and no. Whether it still exists, Gary may know.

ABKOWITZ: You want to speak to that as well? Well, you need a microphone.

LANTHRUM: I can give a bit of a background. Gary Lanthrum, DOE. There was—a long time ago there was a Senior Executive Transportation Forum that was convened and their charter was to address cross-program issues that would come up that required inputs from more than one program. And, it was fairly active in the early days of WIPP being put together, but as WIPP became more operational and the program, cross-program issues became fewer and fewer, it fell out of fashion and is no longer currently operating.

Alice, do you want to talk to whether it was being reconsidered, or anything in the current realm?

WILLIAMS: A very short answer on that. There is tremendous interface among all the transportation programs within DOE. Whether it—and within the NNSA organization. Whether we go to a formally-constituted program like we had earlier or whether we continue on a more informal way of sharing lessons on that remains to be seen, but there is a very strong interface that we are starting to build
between the Environmental Management Program as well as the
Office of Civilian Radioactive Waste Program, which
probably will be taking over that kind of function and
we're just beginning that activity.

ABKOWITZ: Okay, thank you. And, thank you, Ralph.
SMITH: Certainly.
ABKOWITZ: Our next speaker is Charles Messick, and he
will be talking about the Foreign Research Reactor Fuel
Program. On the agenda the research was actually left out.
I don't want you to think that we have started to accept
other types of fuel that we were unaware of.
Chuck's background has been with the, in DOE, has
been with the Savannah River Site since 1990, and more
recently he has been working with the Foreign Research
Reactor Spent Nuclear Fuel Acceptance Programs, actually
been involved with that program since its inception in
1996. And he has been the Lead Program Manager for the
last three years, and we certainly look forward to
hearing Chuck's knowledge and experience from that program.
Chuck?

MESSICK: Thank you. It's a pleasure to be here
today. And, as I get going on my presentation, I started
taking some notes and realized that some of the things I
put in my presentation probably is less applicable than
some of the things that I'll try to expand upon today
because of what I've learned today. I haven't been involved with this part of the program and so I wasn't exactly sure.

Also, as Lead Program Manager at the Savannah River Site, I'm also the only worker I have. I'm the only FTE at Savannah River Site working on this program. We are a very low-budgeted operation. I do have some contractors. So, I'm my own worker. So, sorry.

What I wanted to point out just as one example, and hopefully, it's a good example, but it may not look so good. We also have not had any accidents to date. The picture I'll show you here is a truck overturned in Argentina to one of our later shipments in 2001. Actually, that was in December 2000.

But what this is is the equipment container that was in convoy with the packages. Even in these countries we differentiate between the requirements for who can drive the material and who can drive the other things. However, it wasn't the same convoy. They had less experience driving. The better trucks were carrying the cask and these were following it. However, we did have one incident during that time.

But the incident shows you that in some ways. one data point shows you that something did happen, but it happened to the equipment containers, although nothing--on
the IP-2 containers, nothing happened with those. But, the accident occurred on the non-retro fuel.

And also, on my presentation, I'm going to talk a little bit about the program origin, a little bit more about the--I've it called the attributes of the program, which sort of were addressed with the questions that may be applicable to this program. And them some more of the detail, lessons learned, some of them very detailed, I've pulled them together from a couple of different sources.

And maybe a little too detailed and haphazard. So, however, most of the information is in your slide and I'll try to expand on it. I'll also try to increase these notes I took, and they may apply to you.

This program began in 1996 from the signing of the RECR decision by the Department of Energy. It stemmed from the Atoms for Peace Program from the 1950s. Part of that program involved 41 countries that we gave enriched uranui to to run research reactors. Part of the agreement was for doing that was we would take the material back.

Now, that benefitted us in a couple reasons. We'd take the material back and put it back into our process, and that continued on until the 1980s and early 1990s when those programs were halted. Ours eventually became in place. During that time, we no longer had use for that material so it became a bi-product or unusable material for us and it's
now designated for repository or some ultimate disposition.

So our program is a little bit different than the past programs, which is probably why it had some resistance in getting a new program going.

I think I covered some of this so I'll skip over some of these and try to just hit the highlights of what's important. And, some of these things that's important to know is that this program is intended to support the non-proliferation objectives in that the reactor operators who are still using highly enriched uranium agreed to convert to lower enriched uranium or some other fuel in order to continue operations. And I would like to say we have been fairly successful in that, as only a few reactor operators or reactors in the world that we have supplied uranium to that are still using HEU and we're working on those. They have not agreed to participate in the program.

There is LEU out there for mostly reactors to convert and use. There are some issues with that regarding the disposition capability of that LEU fuel, which is still a problem for a lot of our reactor operators.

This just gives you a brief outlay of the these 41 countries. Part of our program, and you'll see a little bit later, we've separated our spent fuel into two categories. One is the TRIGA fuel. That is destined for the Idaho National Environmental Engineer Laboratories.
And, all the other material we call the test reactor fuel is designated for the Savannah River site, which is 95 percent of the fuel, obviously, so the Savannah River Site will get most of this material in probably 36 of the 41 countries. So we have the lions share of the work. This involves about 20 metric tons to be shipped back to the U. S. One ton going to Idaho, the other 19 tons that go to South Carolina.

One of the other members in an earlier presentation talked about the West Coast shipment. We have done one West Coast shipment from San Francisco to Idaho. All the rest of them have come to the Savannah River Site. So currently we have five have gone to Idaho. You see that later. Four of them have come to the Savannah River Site first and then another shipment campaign to get it to Idaho.

Our program is a 10-year program plus another three years for the reactor that converts it to the—or stop using the fuel at the very end of the program for it to cool down to K, and then establish a shipping process for that. So none of the fuel must be readied after May, actually May 2006 in order to be eligible for this program. Beyond 2009 we expect the reactor operators to determine their own disposition path for that. That is the way this program is set up.
Just to give you a little briefing as far as the shipments we've done. If you add the two we've done 28 shipments, two of these 23 over here is actually two of these over here because it's only--the shipment was only done to the Savannah River Site and forwarded on to Idaho. But we have pretty much covered the span of the world to get our shipments in.

What we're talking about as far as transportation goes here is only from, primarily for us it's the Charleston Naval Weapons Station, Charleston to the Savannah River Site, a mere 126 miles by pretty much rail or truck, or road. And, however, so that's a very small piece of the pie for what we do as far as making these shipments happen. And actually, this is probably the easiest part we have to do, and hopefully, I'll cover that, why it's easier in just a moment. That will give you some idea as to what we're doing.

Okay, the 28 shipments--21 of the shipments come from the Charleston Weapons Station, which is our primary port of entry into the United States. We've had two shipments from Canada, both using the same route that came in through Niagara Falls and down to the Savannah River Site. Again, one West Coast shipment to INEEL and then four cross-country shipments from Savannah River Site to Idaho.
And, when we talk about shipments, these--the regulations talk about shipments as far as packages. These are shipment convoys or campaigns. They can be between one, two, up to 16 packages in one shipment, which I'll address that as far as the truck versus train in a little while as far as potential benefits and/or pros and cons.

In implementing the program--and I think someone else mentioned it earlier, too, is, the Department of Energy plays a direct role in making these shipments happen. We don't contract out to the shipper and then wait for it to happen and open the gates when it gets here. We don't do that. We're in direct involvement with this program. I think it makes it a better program because of that. Also, it causes a little bit of problems as far as who calls who when they do have some concerns or problems during the shipment campaign.

We have in the inception been an open forum in what we've done. We've tried to hold public meetings and hopefully they were adequate. In these public meetings it was determined that a train was the most preferred mechanism in order to transport it.

We try to involve all the stakeholders in what we do. And, from initiation and then afterwards. When we talk about stakeholders, the resources we use to make a shipment happen, we constantly and continuously communicate
1 with those folks in order to continue our process. 
2 And, as Ralph pointed out earlier, that's been a 
3 real key to our success, particularly in the smaller 
4 distance, from the Savannah River--from the Charleston 
5 Naval Weapons Station to the Savannah River Site because we 
6 have a constant relationship with those folks. And any 
7 problems that we have we'll know it early on. 
8 Now, put up--well, I'll talk about that in a 
9 minute. 
10 And Ralph even said the same thing. Sometimes we 
11 go beyond in some cases. And we do that in order to make 
12 the shipping campaign a success. And we talked about go 
13 beyond, it's not that we go and spend extra money just to 
14 appease people. We justify that. But we try to do the 
15 extra things that makes the shipping campaign more 
16 meaningful to the people that have to support it. 
17 A little more explanation is this program, and 
18 the question that came up earlier as far as NRC shipments 
19 and what have you, we still have a small problem with that. 
20 But this program, we have two categories of reactor 
21 operators. We have reactor operators from high income 
22 economy countries and then what we call other than high 
23 income economy countries, which are low income and middle 
24 income by the World Bank report. 
25 High income economy countries is what funds our
program. We charge them a management fee and when they ship in we charge them $4,500 per kilogram of total mass that we received, and $3,750 for LEU, what we receive, then we use that money to pay for the various things that we're responsible for paying for. And, I will discuss this a little bit as far as the program attributes in just a moment.

However, the other important part as far as transportation goes, by our contracts we have those those reactor operators, the high income country ships it to the Savannah River Site. We're not responsible for it as far as the shipping goes. We do have a contract with CSX, we don't have a contract with Tri State. We don't have any of those things. But we are still the coordinators of what happens in the United States. So we make that happen. But we don't have a direct contract with them.

On the other hand, the low income countries, or other than high income economy countries, we do. We provide a contract to a, what we call a transportation services contractor who will hire the ship, hire the rail company--CSX is the only option we have--or the trucking company to make those things happen, as well as a host of other companies.

So the responsibility is different. We still ship in accordance with NRC regulations on both of those,
and there's some discussion as far as what we really are
doing in that regard even on the NRC side, particularly the
difference between the Charleston to Savannah River Site or
Savannah River Site to Idaho. So that's still open.

The other thing about our program, by the foreign
reactor operators, it's a volunteer program. They do not
have to participate. If you look in the EIS it shows you
approximately 18,800 fuel assemblies that we could ship.
We're really going to get something a little bit less than
10,000 fuel assemblies we believe. To date, we've got
about, we have 5,000 fuel assemblies and about 142 casks so
far to Savannah River Site, and about 10 casks to Idaho.

Okay, as far as the attributes, and hopefully,
this will cover some of the things that may be applicable
to this program or it may not, or it's a decision that it
does or doesn't.

Again, most of our segment starts from a single
point, that being Charleston, which is different than what
this program may do, but it changes the perspective. We do
have--we do about two to four shipments, up to 30 casks per
year. Again, one shipment can be one cask to about 16
casks. I think the largest we've had is about a 13-cask,
so far. So it's a little bit different than having the
WIPP shipments for instance. It's a different type of
perspective how you look at that.
And, of course, what I'm about to show you here on the other attributes, you may look at that as far as why we do what we're doing to make the shipments happen or make the program a success, or whether it's the right thing to do or not. Obviously, there's pros and cons to each. As I said, the shipments destined for Idaho will come to the Savannah River Site first, so they are counted as two separate shipments. The reason we do that is to adjust for the cross-country portion of the shipment so that we can avoid rush hour traffic and so we can affect the time to leave the Savannah River Site and control that so we can--we can do that as we committed to the States in order to get past the larger cities and not during rush hour times. We see a problem sometimes. It doesn't occur that way just because of various other issues. Again, we follow NRC regulations and DOE orders. The program coordinates with and provides grants to the South Carolina State Law Enforcement Division, and Department of Health and Environmental Control. That's one of the things we can talk about. We do that, provide a grant to make our program a success. Is it more cost-effective? Is the thing to do to pay a rate per cask that some of the states are doing? I don't know. But this is what we do for this program. It works well for us and I think we're going to continue that process throughout the
However, if you have several different campaigns going through the Department of Energy, certainly would make sense if you were going to provide a grant that you have common grants. It's not a good idea, or may not be a good idea for us to provide one FTE to the State of South Carolina for a duty officer and for another campaign to do the same thing. So we can combine resources there.

The program funds all unloading and security operations at the Naval Board, here at the Charleston Naval Weapons Station. And we provide a prorated share of maintenance and cost equipment used at the Weapons Station. It's not necessarily a very good deal for us, but it's what we have to do for security purposes. We pay for 100 percent use of the crane on the wharf in Charleston. All the maintenance for it. We pay for 1/6th of all the rail service they have on the base because we had determined that's our prorated share. It is very expensive for us to do that. But that's our only port of entry so that's what we have to do to make it happen.

However, the things we do here, the people that support us believe in what we're doing and they support us 100 percent. Again, we have constant communication with them with all the things we do, and when we need to do something, we can get it done. And so for that it's just a
Here's one thing I'm sort of proud of, I guess. Someone talked about the security rail car, or the caboose. We also--I just purchased one myself, well, the program did. But it took me three years to make it happen. But that was one of the lessons learned. We constantly had a battle with getting a rail car, security rail car that SLED determined was adequate enough or even to get one there, to make a shipment.

We paid a lot of money for this particular caboose, but the final straw was, whatever it comes down to, we can't get a caboose on site to make a shipment. I have a ship at sea that's 100 miles off the coast and I have to tell it to stop. It's carrying a boat load of spent nuclear fuel on it, and it's just waiting around because we don't have a caboose.

The other part of it is, and here's the other part, is I talked about the things that we do to make the program a success. The fact that I delay a shipment by three days means that I've got 100 people out there that had planned their work week and planned all the work activities for a Monday shipment, for instance. And now, all of a sudden it's not going to happen until Friday. What does that do to the State of South Carolina's resources when I'm using 1/5th of their SWAT team for this
1 shipment and all of a sudden their work scope changes?
2 That's not a good thing. Consequently, bought the caboose.
3 And when I bought it they had direct input into what went
4 in it.
5 Some of the other things that we provide that may
6 be of interest to some of the other programs, we provide
7 radiological personnel at the port to conduct radiological
8 surveys. We use the REP Team, the Department of Energy REP
9 team, to do this function, however, they are not a REP team
10 when they do that. It is part of the qualifications and
11 part of their proficiency or qualifications to do our
12 process, so we use that team to maintain their expertise as
13 well as serve a benefit for us.
14 We also provide a radiological team to shadow the
15 shipment. We don't do that any more, as of this last
16 shipment. DHEC now does that for us. Part of the grants.
17 So they shadow the shipment in case of an event.
18 We also chose not to have a radiological team on
19 the security caboose because it has been determined, or
20 someone believes, and we go along with that, that if you
21 have an event that causes a derailment of the train that
22 the people in the caboose are probably not any help to you.
23 So consequently, we shadow that.
24 The second thing is we implement the CVSA
25 inspections for the trucks, Level VI, and that's been a
pretty good success for us. Although, if you look into the
lessons learned part of my presentation, there's quite a
few things that have come up even though these haven't been
inspected. So there are some problems with that.
Mechanical things fail. We've had tires blow out on the
interstate. We've had brakes lock up 100 miles after it
departed, things of that nature, that--don't know how to
fix that, but we're trying to keep up with it.

One of the things we do with that is we do have a
repair truck with--Tri-State repair truck or a contractor
that sort of shadows a shipment that's within 30 minutes of
a shipment. One of the things, or one of the reasons why
we do that is not because so much--well, if a truck has a
flat tire we have to fix it--is we have all those resources
out there and we have to protect that during that time. So
if you have an event or you have a small breakdown, those
resources are really taking up and protecting that shipment
during that time. So it's worth it for us to actually have
someone shadowing that that can help.

Some of the things that we've had, again, I've
already talked about the tire blow-out within 20 miles
after having been inspected. Has something to do with hot
and cold. Air pressure, I'm not sure about that, but
possibly. But when you see a SWAT team on the interstate
you don't want to stop and ask questions. Not even me.
They don't know me. But, nonetheless, that's what we do. We did institute a lessons learned program early on in the program, and we tried to solicit input from everyone that we could that had any type of association with the program, and we tried to implement those. We tried to address them. No, we didn't implement everything, of course, we did provide a 1-800 number to anyone who wanted to call during an actual shipment campaign. The people who needed to know had the numbers to call. Things of that nature. We have a communication plan.

Early involvement of all the involved parties invoked ownership, and that's just a statement. But that is in fact true. That's why we, I think we're successful for this part of the shipment campaign, and why it is not a--it's not one of the bigger issues of our shipments because these people as well as the people that work on the program believe what we're doing is important enough, and that we need to support it to make it happen. And they do.

Of course, followup, followup, followup. Just a comment.

Here's some of the lessons learned, but I kind of go through those in some of my notes because I think these notes are more applicable. NRC licensed cask, we use obviously Type B packages, the NRC licenses. Or DOT certified for certificate of competent authority which they
use NRC for review for that. So, we do follow those regulations.

The other things that might be important to you is we take, for the high income countries, we take title of the fuel as it's unloaded in the United States. So before that, it belongs to them. At that point it belongs to us. However, again, as I said earlier, irresponsible shipping all hinges around Savannah River Site. The only reason we took title at that point is to apply the Price Anderson Act for insurance.

For other than high income countries, we take title at the foreign port because we're paying for the ship, we're paying for the contractor to help make it happen, so therefore we take control of it over there. In their country they have to take responsibility because in the event of an incident, it would be their resources that would have to be mobilized to make that happen.

One of the other points of comment I guess that occurred earlier is, facility compatibility for cask and transport equipment. We talked--someone said something regarding the flat racks being compatible or similar. We use a similar thing for--all of our packages have to be in isocontainers. Not necessarily hard-walled, but isocontainers so you can pick up with the standard isocontainer rig, which is what we provided to the Weapons
Station to do that. So we do that for handling purposes there.

However, when it gets to the receiving facility, you also need to be compatible with the cask. And, we have had to modify our facilities twice now, maybe three times coming up, in order to support handling of the different fuels and the different casks. Since we don't control those, the reactor operator controls providing that—the cask they are going to provide. It's got to be one we can receive, but they have different fuel, and so we have to check that out every time.

Dedicated trains, and trains versus truck. Just to address that from our side, and again, we do, as I said, multiple shipments from one to 13 or 16 packages per shipment. If we did an evaluation of that and sort of determined that—and again, these—okay. I guess I should cover part of this. But I want to make sure I cover—because it's kind of more applicable.

But, we determined that it takes about three or four packages in a single shipment in order to make the break-even point between truck and rail, as far as cost goes, because what happens is is for us the security team wants to only travel in convoys of two. So they have to do the CVSA inspections and then the convoy leaves with the appropriate escorts, and then we have to wait for those
escorts to be available for the second shipments. So it's
a resource issue more than a cost issue. But that's pretty
much how we determine whether we're going to do a truck or
a train shipment. Three or four, we determine from that as
far as when to do train and truck.

Dedicated train is, at least in our opinion, when
you have a lot of resources that are shadowing the
shipment, making the shipment happen, that's a--I don't
want to say a small price to pay, but it makes the shipment
happen versus leaving a lot of things out there that your
resources are being used for. And there's a lot of people
associated with monitoring, supporting that shipment during
that time. So for us, it's something that we think we
really need to do.

One of the things as far as lessons learned that
we think is a really good thing for us, and I think it has
sort of been said, we have pre-shipment meetings and we
have pre-shipment conference calls about a month before to
make sure with all the stakeholders that everything we are
planning on to date is in place and any issues that we know
about so we can work those issues.

One of the month reporting (phonetic) for us is
either shortly before the ship leaves or some time around
when the ship leaves the foreign country so at that point
in time we need to make sure of that, that we are working
those issues, so we kind of track that.

And then, we have pre-shipment meeting the day before the ship actually arrives. With this we ask for everyone to be in attendance that's going to support the shipment, and we verify everything is in place. It has been well worth that effort. People are well aware of what's going on.

We have issues. We had a small engine derailment on the Weapons Station on one particular shipment. We didn't know if we were actually going to bring the ship in because we couldn't get the shipment to leave the Weapons Station. So, it made the shipment happen. Everyone knew what was going on. There was no issues with that. We had no complaints by our stakeholders. They understood and supported as necessary. We didn't know if we were going to make the shipment until two hours before the ship actually started coming into port.

But we do have to ensure all organizations are ready, ensure the prerequisites are completed, ensure the shipment is on schedule, make sure the ship is exactly where it's supposed to be at that point in time. And make sure everyone knows. We announce any changes in the plans. Verify 24-hour point of contact is in place.

And, what we do with that is, we maintain a list, specifically me as the shipping director at that point in
1 time, maintain a list of all the supporting agencies and
2 how I can get hold of each and every one of those persons
3 while they are away from their home office supporting this
4 shipment. We have had problems with that before in the
5 past and that is a very, very good thing to do. And that
6 is in addition to the communications plan.
7
8 Key organizational representatives present at the
9 beginning in operations, we have had problems where there
10 has been a--if you were the expert you would have seen it
11 and could have corrected it, but since you weren't, since
12 they weren't there at the time, it went on for several
13 hours and then all of a sudden that organization shows up,
14 and, oh, this is all wrong. And so, we have everyone there
15 that needs to be there for their technical expertise is
16 there at the beginning of the process.
17
18 Press releases are coordinated in advance. Of
19 course, everyone should know that. There's lots and lots
20 of opportunities for miscommunications. Everyone knows
21 that too. We try to, part of the things, we do these
22 conference calls and these pre-arrival meetings is to
23 minimize the miscommunications and to make sure everything
24 is in place. We work, I think we work hard at trying to
25 make that happen.
26 I've already talked about the caboose, but
27 leasing it is not a reliable thing to do.
Rail priority can be problematic. And we have had several instances on that as far as priorities of rails. We're limited to 35 miles an hour. We have problems with who we get on the tracks with. We have to pull over, let the faster one of the trains go by. Things of that nature. It's a constant battle and we're only going 126 miles, not necessarily on a main route, but it's still on a frequently used route, up to Augusta, Georgia. And so that can be a problem.

We need to work with our railroad companies to, not only give us priority, just to make sure all the other people that are working that night or that day that we get the priority also. We get the priority from the people that we work with, but we don't necessarily get the necessary priority for the rest of the organizations or the rest of the train routing within the country overall that can affect our region. That has been a problem.

Staged spare rail cars, spare trailers. We have those staged in order when we do our inspections, and if we have a problem with it, we can replace them out instead of trying to get someone in to fix it in a very moment. So we spend time in doing that.

Pre-inspect and operate all moving parts on the rail cars. And, I guess in your case or for this case, the potential would be to use new ones, but they will be out in
the weather and eventually do that. And when you come down
to loading and something doesn't work, you have a problem.
So pre-inspect, stage them correctly. Doesn't really
apply to you, but it does to us, since you can't really
tell where the package is sitting, what's top and bottom.
We need to know what it is before it gets to the receiving
facility.
Ensure distribution of the transportation plan
and security plan includes the working level people. We
can do the best I can to get it to the governor's designee,
give it to the right state officials. Doesn't necessarily
mean it gets to everyone that needs to know that you really
do work with on a day-to-day basis. So we go out of our
way to make sure those people are informed also so they can
go look for it in the right office and find it if they need
it. Things of that nature.
Since ours are in isopackage, isocontainers,
contingency plans for opening containers since that gets
you inside to where the cask is. Generally we have seals
on the containers so we had to do that. And that's one of
our lessons learned.
For us clearly communicate, reinforce, safeguard
information. That's always been an issue and we have to
make sure that our supporting agencies understand those by
NRC regulations. And, we have had unofficial press
releases and things of that nature that's undesirable at that point in time.

Under transportation, we say pre-inspect equipment prior to actual shipment. Allow plans for--allow time for unplanned repairs, which we try to do. Communication with the carriers to make sure they understand their expectations. And that also means down to the truck drivers, whether they are getting ready to depart. And try to make sure that, as a validation, they understand what we think they should--they understand.

Obviously shipping papers, placarding must be complete. We had one issue with the regulation changes, and not everyone is on board. We had left one state and went through three states and got to the fourth state and they had a problem with it. Things like that. So, we have to be conscious of those changes and make sure that changes get communicated all the way down through the corridor states.

Consider rail crew changeover when you're planning if you use rail. They work 12 hours a day, however, the problem was they may work six hours because they come from 200 miles away for you to put them on a train before they actually start to work. So you get four hours down the road and, "We've got to stop. Our day is done." We have to make sure we do that. And what we do
is, no matter how much time they are there, as soon as we
get--the train leaves the Weapons Station at the first rail
yard, we change out and put a fresh crew on, no matter how
much time they've been there.

Surveying rail cars and trailers. One of the
things on the European side, as some of you may know, is
where they detect a contamination here and they are on rail
tracks and I don't know what they've done with their rail
cars that's been in use for those activities, don't know a
whole lot about it, but it's one issue.

We also do surveys of the ship after we take
material off, the footprint area to make sure there's
nothing there. And of course, we never found anything.

Early route approval. Of course, everyone knows
that. Again, we're by NRC going from the Weapons Station
to the Savannah River Site. Each shipper that does that
has to get route approval by NRC so I mainly use two
shippers in my campaign, although, and they maintain a
route approval. Each one has to get their own route
approval and keep it.

States and law enforcement agencies did not
receive notifications. Kind of said something about that
earlier. Plan around rush hours with extra time. If you
have a long CVSA state inspection in one state, that can
affect your rush hour, when this shipment gets to the rush
1 hour. And also, what you might think rush hour is and when it actually happens may be a different definition. You might have 5:00 to 8:00 o'clock in the morning time and when you get to the state, the state officials at that particular point in time thinks the rush hour is from 4:00 to 10:00. And so, consequently, that's a problem.

Ensure supporting escorts know when and where they need to be. Of course, we've had problems or I wouldn't have said it.

Contingency plans for transport monitoring.

TRANSCOM. We use TRANSCOM for our shipments both on rail and truck, and it has worked well. We've had some complaints as far as we turn the TRANSCOM off to a state after it leaves that particular state because we don't have a need to track that any more. But in some cases their resources aren't available to support getting back to their office and downloading the information before we cut them off, things of that nature. So all that needs to be worked out and make sure your stakeholders understand that.

On the security side, and I thought this is a very good one here. Number one, the need to—if you go by rail our SLED agents or SLED team uses the state law enforcement representatives from various different jurisdictional authorities, both department natural resources, state transport police, SLED, or actually SWAT
1 team members. And the reason they do that is depending on
2 if an event happens in parts of the area of the state since
3 rail is so out of the way, that you need to make sure you
4 have jurisdictional control over that area or authority
5 over that area. So that's why that team is made up of
6 various different members from the security side.
7 Reduce visibility. Of course, we're pretty much
8 in isocontainers so it's not really an issue for us;
9 however, our Japanese casks do not. They look like casks
10 going down the road or on the train.
11 Designate safe parking areas if you use truck on
12 both sides of the state lots for security escorting
13 functions because the actual authority happens at the line
14 and you may need to stop on one side or the other.
15 Contingency plans for late escorts. Obviously
16 that's happened before in the past, too. Good coordination
17 between the security and the carrier, because we have some
18 issues with that.
19 And that's, Alex Thrower is the Headquarters
20 Representative for this program. There's only one full
21 time FTE up there also. So we're kind of--and then on the
22 other full time FTE, Jim Wade out in Idaho is a part-time
23 FTE for this program. So, as you see, we don't have a lot
24 of people working this program on a full time basis since
25 the program has been up and running, but we're trying to
Now, to cover the last few things, on the lessons, on some of these things I thought was important to you, fuel types and compatibility. Some of our transport packages, we had to go out of our way to get the packages recertified with NRC with failed fuel, for instance, or different fuel characteristics that we constantly have to deal with. But obviously, I'm sure that your program would look at that in some detail also.

For us the foreign reactor operators are all different so we don't—we can't get into a routine. This is probably more routine as we get on this end. Every foreign reactor operator, every country does things different. Any time we do a first-time shipment from any country, we have to—I won't say each of them, but we have to show them how we're trying to do things and they have to work through this system, which makes it very difficult for us, which is where our challenges really lie.

See if there's anything else really important I want to say. Oh, there's one issue someone talked about earlier as far as state versus federal escorts. We have been in that same boat with the Oak Ridge, similar to the Oak Ridge shipments. States can't support truck shipments at various times and so we default to the federal escorting opportunity in order to make it happen, and when they do
it, they take it all the way through. The other states choose to participate with that, whether or not the federal agents are there, that's something that I would encourage everyone to look at as far as how you implement that. Maybe it's a better thing to do to have federal escorts to run your program. I don't know, but not for us, because we do it so infrequently.

With that, I thank you very much for the opportunity of talking today. Any questions? 

ABKOWITZ: Thank you, Chuck. Questions from the Board? Dan Bul len.

BULLEN: Bul len, Board. This is just a quick one. And maybe it's more of a comment to the question. It seems to me that there's a great deal of effort in coordination and communication and organization in trying to make sure that this relatively short shipment takes place in a timely manner and, you know, without any glitches or delays. The scale up to the magnitude that the OCRWM national program is going to see should be sort of forefolding here. This is going to tell you that it's going to take a great deal of work. And, in your estimate do you think it's going to be relatively easy to do or do you think it's going to take a significant effort for them to do the same types of things without a scale that's probably 10 to the 3rd times larger?
MESSICK: Actually, I'm in agreement with you 10 to the 3rd times larger to get the program up and running. Now, it's a big cost initially and you have to rely on, you get that up and it's sort of taking the chart of cost and effort and initially get the program running and then the stakeholders that support you as they become--routine is not the right word--as they become more familiar in working with you, then your level of effort and costs go down where that communication and support from those organizations go up to help level that out. And so I think that's your benefit.

I'm not saying particularly the specific things we use, like grants and what have you is the best way to go for this program. That's just the way we do that. But the one thing I would say is our program has gone, I'll call it overboard, has gone to the extremes of what we do to support the--to make the shipment happen. Security for instance. After 9-11 we had the authorization to ship from a ship that departed in, roughly the 1st of October, and we're at, October, about 14th, in the United States right after 9-11. Why? Because we--the things that NRC has put in place, the ICMs and the supporting regs that come after that, we've already had those in place. We have not changed what we've done, officially what we've done, or requirements based on 9-11 because we already do those
things. We put forth that extra effort to make it happen. Because, again, it being foreign, there seems to be some belief that the foreign research reactors is a different animal than a universal reactor, which is the same fuel.

ABKOWITZ: Dick Parizek?

PARIZEK: Dick Parizek, Board.

Once the waste arrives and I guess DOE takes title to the waste once it wants to move it, say to Yucca Mountain, what does it have to do to know what's in the waste? I mean is there a record of what's being shipped and--

MESSICK: Yes, and we--

PARIZEK: --what's being received, and does it need to be verified so there's no surprises--

MESSICK: Yes, and I'm glad you asked that question.

PARIZEK: --within the states, for instance?

MESSICK: I'm glad you asked that question. We have a very rigorous document, what you call Appendix A that characterizes the fuel. And what is done from that, it takes the manufacturing drawings and data that they have, that the reactor operators keep, their radiation history, all the other specifications, and we take that information--and what's more important, not necessarily for its ultimate disposition, we have now which is only one basin, L Basin in Savannah River Site, that houses 12,000
fuel assemblies. We have to do a criticality evaluation, storage evaluation of that fuel, so we have to know what it is before we can authorize it being put into our basins.

And, the other important point about that is, I have to issue an authorization ship letter to each reactor operator before that material can leave the reactor site, and my prerequisite for that is I have to insure that we have and can store that material safely in our basins before we let it leave. It has to have a home before it can leave that site.

ABKOWITZ: Thank you, Chuck.

MESSICK: Thank you.

ABKOWITZ: Maybe I can catch Chuck off line to find out if he bought his caboose from EBAY Or Cabooses-R-Us.

I just wanted to mention a program change because we are running behind. We are going to hear from our next speaker, Barry Miles, and then I would like to interject at that point the public comment period because I know that there are folks here that have been very patient with us and although we're not going to short-change any speaker on the program, I want to make sure that we have an opportunity to hear from all members of the public that want to voice their views.

So, let me introduce Barry Miles.

Linda, I'll get with you to find out who will be
Barry is the Senior Manager at the Headquarters of the Naval Nuclear Propulsion Program in Washington D.C. and has served in that program for over 34 years. The Naval Nuclear Propulsion Program has cradle-to-grave responsibility for all aspects of nuclear propulsion and naval warships, including management of the spent nuclear fuel generated by those ships. Mr. Miles' current responsibilities include the safe and secure transportation of Naval spent fuel from shipyards to a DOE facility in Idaho. Barry?

MILES: Thank you, Mark.

I want to preface my comments to the Board and apologize in advance. I've been suffering from a pretty bad cold and I'm fairly hoarse already. And secondly, I'm not a public speaker. And I don't normally make presentations outside of our headquarters. It's the first time I've been out to make a presentation to the public, so if I cough and mumble, please bear with me and hopefully the message will be there in spite of the messenger.

As Mark said, I'm Manager of Shipping Containers and Spent Fuel Transportation at Naval Reactors which is the headquarters of the Naval Nuclear Propulsion Program. For the last 16 years I've been responsible to oversee our spent fuel shipments. This afternoon I'm going
to be discussing our experience in shipping spent fuel for the last 46 years and provide our prospective on some lessons learned that may be helpful to the Board. 

Our program is a joint U. S. Navy, U. S. Department of Energy Program. It has its own authority as established by executive order and is codified in public law. And Mark mentioned some of the fundamental principles that have governed our program since its inception over 50 years ago. Strong sense of technical authority with continuous oversight. Protecting people and the environment and cradle-to-grave responsibility. And all those principles apply equally to our transportation of spent fuel.

The nuclear freight is crucial to the nation's defense and military presence. 40 percent of all our nation's combatant ships are nuclear powered. That includes all 72 submarines and 10 of our 12 aircraft carriers. A nuclear-powered aircraft carrier like this one here on the screen is one of the first assets that our country turns to in times of diplomatic and military crisis.

During the recent Iraqi Freedom campaign, three of the five aircraft carriers on station were nuclear-powered. And one of those, the Abraham Lincoln, was deployed there for 10 consecutive months.
If you look at this screen, you also get the typical view of our nuclear submarine and the stealth it provides. 12 of those submarines fired over one-third of the precision strike Tomahawk missiles that were used in the Iraqi campaign.

So why do we ship spent fuel? When a warship—nuclear-powered warship is refueled in a shipyard, we take the spent fuel out, we put it in a shipping container and we transport it to our facility in Idaho. Our objective in making the transport is to examine the spent fuel in support of our ongoing reactor fuel research and development effort.

As you can see from this slide, this examination program in our facility in Idaho has been successful in extending the life of spent fuel or the reactor fuel so that now our fuel can operate in the entire lifetime of a ship, which is in excess of 30 years. The long-lasting fuel minimizes the number of times a ship has to be taken out of service to support refueling, which is strategically important to our military, and obviously it also minimizes the amount of spent fuel that's generated, and then that, in turn, will minimize the number of spent fuel shipments we have to make.

After we examine the fuel it's temporarily stored in our facility in Idaho with the alternate plan to send it
1 to the geologic repository.

Our program has been working closely with the
Department of Energy on this disposition plan for the last
several years, and we've had frequent discussions with the
Department of Energy about our spent fuel shipment
experience.

What is our record? Since 1957 we've safely
shipped 754 containers of spent fuel by rail to the Naval
Reactor Facility in Idaho. This slide shows the typical
routes currently used by rail carriers when shipping from
our shipyards to the Naval Reactors Facility. We ship out
of New England from Portsmouth Naval Shipyard near
Kittering, Maine. Out of Tidewater, Virginia from Norfolk
Naval Shipyard, and from Newport News--Norfolk Grummond
Newport News. And from the West Coast, from Puget Sound
Naval Shipyard, which is near Bremerton, Washington. We
also remove spent fuel from ships in Pearl Harbor, Hawaii,
ship it on a ship to Puget Sound and then of course by rail
from there to Idaho.

I mentioned these are the typical routes that are
currently used by our rail carriers. In the history of the
program we've also shipped spent fuel from several other
places where we no longer are doing business. For example,
we've shipped from a Naval shipyard near San Francisco,
California, from Pascagoula in Mississippi, from
1 Charleston, South Carolina; from Groton, Connecticut, and
2 then from land-based facilities in Windscott, Connecticut
3 and Shipping Port, Pennsylvania and upstate New York, north
4 of Schenectedy. In over 45 years of shipping spent fuel,
5 we've never had an accident or incident, which is the same
6 story we've heard from the other people today, that has
7 resulted in any release of radioactivity or any increased
8 radiation levels on or near one of our shipping containers.
9
10 We continue shipping today. The rate depends on
11 the Navy's refueling schedules. Over the last five years,
12 for example, we've shipped anywhere from three containers
13 in one year to up to 20 containers per year, and we'll
14 continue shipping at that frequency over the next several
15 decades, with increases once we start going to a
16 repository.
17
18 I would note that we use all the major carriers.
19 UP, Union Pacific and Burlington Northern in the west, CSXT
20 and Norfolk Southern in the east. And also we use several
21 regional carriers. We also have a broad perspective of
22 traffic management from that of planning efforts in our
23 transportation office in Pittsburgh down to firsthand, on-
24 scene experience from our Navy couriers.
25
26 Bottom line is our program has a pretty good
27 understanding of rail operations and how to successfully,
28 safely and effective manage rail shipments.
Safety of our shipments results from these three primary factors: First, the fuel is extremely rugged. Remember, it's designed to withstand the severe operating environment in a operating ship for decades and to withstand battle shock conditions.

Secondly, the shipping containers in which the spent fuel is packaged are extraordinary barriers to the release of radioactivity. Even in severe accidents. We've had discussions on that today.

And third, the shipping practices followed by our program help avoid accidents, and in the unlikely event of an accident, are intended to result in quick and thorough response. Our carriers who accompany each shipment play a major role in accident response, and I'll discuss that shortly in reference to our periodic accident exercises.

These points are indicative of the inherent design and manufactured ruggedness of Naval reactor fuel. It's solid, it's built for battle shock, it contains all fission products and it's safe to operate in close proximity to sailors. So our fuel is exceptionally well-suited for safe transport and storage in the geologic repository.

Here is the Navy's spent fuel shipping container. We call it the Model M-140 container. It's 14 inches of solid stainless steel. It's about 16 feet tall and nine
1 feet in diameter. Weighs about 350,000 pounds. And very
2 importantly it's a Type B NRC-certified container.

We've heard this morning and I think Mr. Bullen
4 mentioned some of these attributes that the NRC specifies
5 stringent engineering performance standards and they
6 include a drop, immersion, fire and puncture.

The third factor contributing to safe Naval spent
8 fuel shipments are shipping practices. One, we use
9 government-owned rail cars to maintain--that are maintained
10 to meet all federal and railroad industry mechanical
11 requirements. We make advance arrangements for each
12 shipment with the involved railroad police and operational
13 departments. We want to insure that there's no surprises
14 between us, the shipper, and the carriers.

Our shipments are handled as national security
16 shipments. So our location and status is constantly
17 monitored by the same tracking system used for nuclear
18 weapons shipments. And finally, we escort every shipment
19 with specially-trained Navy couriers who monitor the
20 movement of the shipments from origin to destination and
21 who, in the event of an accident, provide the emergency
22 first response.

A little bit about emergency response. The
24 robust shipping containers provide a formidable barrier to
25 the release of radioactivity and that allows our couriers
1 to focus on the priorities on the screen. Emergency first
2 aid, summon assistance, prevent injury and verify
3 radiological condition.
4 Let me expand a little bit on the "summon
5 assistance" priority. The couriers are able to activate
6 resources throughout our program, from our national
7 laboratories to our shipyards to our headquarters in
8 Washington D.C. And then those activities can respond by
9 providing technical and management assistance by the phone
10 or we can dispatch a specially trained and equipped team to
11 the scene, if necessary.
12 The couriers also assist the incident commander.
13 And the incident commander would be the senior fire or
14 police official at the scene.
15 Earlier I mentioned that the couriers take part
16 in periodic exercises. We've been doing these since 1996.
17 Since our shipments are classified and they are not
18 subject to the planning and notification protocols of
19 unclassified fuel shipments, the exercise provide a fine
20 opportunity for civilian authorities to learn about our
21 shipments and what to expect from our shipment couriers.
22 And, we've also found that the exercises provide
23 value to the tribal, state and local authorities to think
24 through and practice their emergency response actions.
25 Including exercising the remote communication links that
1 they expect to see during such an event.
2 This is a picture from an exercise we ran in
3 Idaho in the summer of 2000. The basic scenario was that a
4 train was passing a railroad crossing, a truck runs through
5 the crossing, hits the rail car containing one of our
6 shipping containers. It derails the rear wheels of that
7 rail car and then the train goes down a couple hundred feet
8 and stops on the track with the rear wheels of the rail car
9 derailed.
10 Now, again, we've never had a derailment or an
11 accident of a spent fuel shipment. But, this is the most
12 likely scenario we think we would see during our shipments.
13 And, what you see here is two of our spent fuel
14 shipping containers, two of the M-140s, which you see
15 several local responders who are reviewing the survey data
16 taken by the state HAZMAT team. And they are comparing it
17 to the data that had initially been taken by our couriers
18 shortly after the incident occurred. The exercises take a
19 lot of time and effort, but we've got very positive
20 feedback from our stakeholders.
21 And, we haven't had any major surprises in terms
22 of lessons learned, but clearly, we find a lot of benefits
23 in thinking through and practicing a coordinated emergency
24 response to such an accident.
25 The next and the last three slides are lessons
learned, and before I get into them, I do want to preface them. Some of these lessons are going to be, from what I've heard today, direct opposite of some of the other lessons from other people's perspective, and I'm not trying to be argumentative up here. I'm just simply trying to provide you folks our perspective from the way we do shipments, and in fact give you an opportunity to weigh all those things together.

The first one I think--you probably think I'm harping on this a lot, but I think this is extremely, extremely important in that the Type B packaging combined with regulatory compliance by the shippers and the carriers provide superior hazard protection under all transport conditions. And, we firmly believe that that's the critical piece of shipping spent fuel.

Secondly, a closed transportation system dictates safe operations. I think we heard discussion on this earlier today. All trains move over the same track and therefore accident avoidance is critical for the rail business.

Accidents shut down lines. A shut-down line means freight doesn't move and railroads make money by moving freight, so a derailed train, as you heard earlier ripples throughout the rail system. And so there's a big operating incentive for railroads to operate incident free.
And thirdly, on this slide, unencumbered operations enhance safety. What I mean here is unencumbered operations means that you're going to have less risk of an accident/incident. And our experience is any artificial constraints to the movement of rail freight are likely to cause more problems than they solve.

And we have an example of that in our own program. For years, we imposed a speed limit of 35 miles per hour on all our rail shipments. Not only spent fuel, new fuel, steam generators, main cooling pumps, whatever we ship. We started doing that in the late 60s and early 70s when we as a program had concerns about the dynamic stability of the heavier, higher center of gravity loads, and I think Bob mentioned that earlier this morning or this afternoon. And, the industry was also having trouble with some of their newer hundred ton hopper cars, so we imposed that restriction. And then, even after testing the rail cars and outfitting them with improved suspension systems to insure dynamic stability, we considered it prudent to continue the restriction.

After lots of discussion over many years with the railroads and coming to recognize that we really didn't need to regulate the speed since the FRA and the industry was already doing that, and also realizing that our slower shipments were sort of analogous to driving 40 miles an
hour in the left-hand lane of an interstate that's--we concluded that we really didn't need to maintain that restriction. So we dropped it and adopted the industry's technically acceptable hazard materials speed limit of 50 miles and hour. And that's what we're doing today.

And this next slide is the one that's probably a little bit controversial.

Our position is a dedicated train is not safer. And I would like to provide a little bit of history on how we've come to that conclusion. And, recognize, we're coming from a little bit different perspective than Bob Fronczak is coming from the railroad industry side.

This debate has gone on for over 25 years. The issue has been reviewed extensively during proceedings before the Interstate Commerce Commission, which preceded the Safety Transportation Board, and the courts throughout the 70s and the 80s. And it was determined in all cases by the ICC and the courts that there was no significant increased safety benefit to dedicated train service.

Now, one argument that we hear is that dedicated train service lets us avoid rail yards where there are frequent accidents. There's some realities of railroad operations that would argue against that. It's difficult to totally avoid rail yards if you're going to interchange from one rail to another. You can do it outside of a rail
1 yard, but often it's done and--that's where it's done when
2 you're going from one rail carrier to the other.
3
4 But secondly, what kind of accidents would you
5 expect to have in a rail yard? They would pretty much be
6 fender benders. So, from our perspective, if you're going
7 to add extra dedicated trains to this to avoid fender
8 benders in a rail yard, and in the process you're going to
9 put more trains into this closed rail system that we've
10 heard about earlier today, that means more trains would
11 have to be followed and monitored and controlled to insure
12 that you don't have collisions on the main lines. We're
13 not sure that makes sense.
14
15 Now, just to be totally complete on this, though, there are reasons to use dedicated trains besides--but not
16 for safety reasons. The industry, the utility industry
17 perspective gentleman this morning, Steve, indicated they
18 do it for logistical reasons, not safety. And we also
19 occasionally do it for logistical reasons.
20
21 For example, at that shipyard up in New England,
22 Portsmouth Naval Shipyard, the local carrier, Springfield
23 Terminal, doesn't regularly come into the yard. So when we
24 want to move spent fuel out of there, we'll arrange a
25 dedicated train from Springfield Terminal and tell them
26 exactly when we want to get picked up. They will pick us
27 up, move us on dedicated train for the few miles up the
line until we get to the main line and hook up with Canadian Pacific and then we'll move on regular freight across the country on Canadian Pacific.

Just one clarification. Bob mentioned that, Bob Fronczak, that the railroads always move us in dedicated trains. I think he said that. If he did that's not totally accurate. There is one railroad, Union Pacific, that does always. When they pick us up at Kansas City, they always move us in dedicated train. Every time. Been doing that several years.

But other carriers will move us in regular. In fact, on a very last shipment, just last month, out of Puget Sound, Burlington Northern moved us in regular freight.

Now, Bob, don't call them up and give them a hard time on that.

Again, this is, you know, the perspective that we've had from doing this over the years that we're doing it. We believe it's important to select the right rail car and inspect it. We have a pre-use inspection procedure that's based on industry standards and concentrates on critical components like wheels and brakes, couplers, and the truck assembly. And we do that prior to every shipment. We obviously try to do that prior to loading the rail car because if there is a problem it's a lot easier to
1 work on a empty rail car in a rail shop than it is to work
2 on a loaded rail car.
3 And, as I previously discussed, we do periodic
4 exercises, which are valuable to allow emergency response
5 organizations to practice their response and exercise their
6 communications.
7 Routing flexibility enhances smooth operations.
8 As a rail shipment, the Naval Nuclear Propulsion Program
9 will designate which carriers will handle a shipment and
10 will designate the interchange points where we hand off
11 from one carrier to the other. Our experience indicates
12 the shipper should avoid telling a carrier what track to
13 use between Point A and Point B on its own system. Routing
14 flexibility for the carrier enhances smooth operations
15 which enhances safety. Again, we're just trying to remove
16 any artificial operational constraints from the rail yards
17 for the railroads.
18 Extra railroad safety oversight is not necessary,
19 based on the inherent safe operating incentives for rail
20 that I described earlier, and which we heard earlier today
21 also. We've considered it unnecessary to duplicate the
22 kind of real safety oversight that's provided by the
23 industry itself and by the FRA. The safety of the
24 infrastructure and the crews is required for all trains and
25 all shipments.
So, I kind of harp on this, but we see no need for Type B radioactive shipments which are safe by virtue of the robust formidable packaging to result in, or be a reason for extra regulatory actions.

And, on a final note, we work security issues with the Chief of Police of the railroads. We've found that they are extremely cooperative and that by maintaining an active liaison with them, it's extremely valuable. We're confident that if a security emergency response is ever needed, that the railroad police will get it there, either using their own resources or working with local and state law enforcement.

That concludes my presentation. I would like to just summarize.

We've shipped 754 large containers of spent fuel over the past 46 years with no release of radioactivity or adverse effect on the environment. The shipment safety is driven by three factors: The rugged nature of our fuel, the robust shipping containers and our proven shipping practices using Navy escorts.

And finally, this is a summary list of our lessons learned from our perspective from shipping Naval spent fuel.

Thank you for the opportunity to share our experience, and are there any questions?
ABKOWITZ: Thank you, Barry. Questions from the Board? Dave Duquette.

DUQUETTE: Duquette, Board.

This is more a curiosity question. You send Navy escorts in the caboose. How do you do that when you're tied into a regular train and not a dedicated train? You just put it at the end of the train?

MILES: Let me explain a little bit on the Navy escorts. We have our own escorts. They are part of our program. They go through our extensive training. And, the answer is yes, what you just said. We supply the caboose that they ride in to the facility that's about to make the shipment. The couriers come in three or four days in advance, they do an over-check of the rail car inspection that had previously been done by both the facility and have been checked by the local railroad company. And then, in the tender or contract or whatever we're using to arrange the shipment, we have that caboose as part of the train consist. And so, when we go negotiate that we're going to ship two containers of spent fuel, we'll also include that we need two buffer cars and a caboose, and that's all included as part of the package.

DUQUETTE: Duquette, Board. One last question. Are these armed military personnel?

MILES: Yes, they are.
ABKOWITZ:  Terry Cerling.

CERLING:  Cerling, Board.

   I was just wondering about your emphasis on the exercises for emergency response and communication. And, what I was wondering is sort of what faction of the community that are along your transportation routes have you guys been directly involved in in training and providing these--

MILES:  For our exercises, one of the primary objectives is to improve the coordination of local response organizations. So when we do an exercise, for example, we did an exercise up near Portsmouth, New Hampshire. We invite the local, or the states that are nearby, their local fire and police people from the communities that are nearby, and get them all involved in the exercise. And they actually participate in the exercise because the exercise primarily is to get the coordination among all those groups and to get their familiarity with our shipment and with our escorts.

   I'm not sure--did that answer your question? Did you want to add on?

CERLING:  Well, I was just wondering, could you say that all of the communities on all of your routes have had the opportunity to participate?

MILES:  No. No. I couldn't say that. But what we do
1 is we do spread the exercises out. We've had one in the
2 northwest near Puget Sound, brought in those states in that
3 area--Oregon, Washington, the communities around there.
4 We've had one in Idaho and brought in the states around
5 there, including the Shoshone Bannock Tribe which is close
6 by. We've had the Umatilla Tribe which we go through just
7 outside of Washington and participate in the West Coast
8 one. We've done an exercise in the Tidewater Virginia
9 area. We bring in the folks in that area. And we've done
10 one in New England. So we are purposely spreading the
11 exercises around, moving from one area to another to bring
12 in as many people as possible into the umbrella of having
13 been exposed to our shipments.
14 ABKOWITZ: Okay. The lineup is going to be Dan
15 Bullen, Bob Luna, Ron Lanatision and Dick Parizek.
16 BULLEN: Bullen, Board.
17 Just a final quick question from me and that is,
18 how do you convey the information you've learned in your
19 successful shipping campaigns and in your exercise to the
20 DOE? Is there a communication mechanism whereby you can
21 convey that information?
22 MILES: Yeah, absolutely. Absolutely. A lot of
23 examples, Gary Lanthrum mentioned the Senior Executive
24 Transportation--I forget the name, we had a representative
25 on that. We've been working to develop the protocols for
shipments that follow on to the REP shipments. We've worked with the DOE on that. We have frequent meetings, for example, with the DOE Yucca Mountain folks. We meet approximately quarterly with them. And I'm sure I've left out several other places where we've had interface, but we have been working very closely to insure we're integrated and on the same page.

John, do you want to add anything to that?

This is John McKenzie. He's Director of Regulatory Affairs at Naval Reactors, and he is the primary interface with the DOE force. He will probably have a better answer than I have.

McKENZIE: John McKenzie. The only thing I would add relative to the Senior Executive Transportation Forum is, you know, there was an issue back in the '97-'98 time frame and how the different DOE programs were integrated, where practices were different and why they were different, and that was a matter of confusion to the states. And they approached DOE and asked the Department to try to reconcile that, which was the focus of that work. And what came out of that was a Radioactive Material Transportation Manual that the DOE issued, I think two years ago which cuts across all the programs both routine shipments and national security shipments. And, to the extent that you can describe that in a publicly-releasable document, goes
1 through the whole process of planning and the
2 transportation campaign, and what states should expect from
3 different areas of the Department.
4     BULLEN: Thank you.
5     ABKOWITZ: Bob Luna.
6     LUNA: Bob Luna, yeah. And, I think the manual he's
7 talking about is the protocols that we talked about at a
8 previous time.
9     I wanted to ask to follow up on Thor's question
10 quickly, I assume that you do do the same kind of one on
11 one interactions with local authorities that the WIPP guys
12 do to make sure that they are up on the shipments rather
13 than just the interactions with the--at the exercises. Is
14 that true or not?
15     MILES: We don't do the same type of one-on-one
16 interactions that the WIPP program does. We--in these
17 periodic exercises we have interactions with the local
18 communities. But again, our shipments are national
19 security shipments so we don't pre-notify the communities
20 we're going through, which is a different approach that the
21 WIPP people have to take.
22     LUNA: Thank you. That's what I thought.
23     ABKOWITZ: Ron?
24     LATANISION: Latanision, Board.
25     I'm interested in your comments about dedicated
trains, dedicated service. At the rates that you ship, it looks like it's about a container a month over 46 years, but you presumably accumulate containers and send, say two every second month or something like that?

MILES: Yeah. Obviously, when we can we prefer doing that, minimize the number of train shipments.

LATANISION: Right.

MILES: To give you the calibration, though, it really works out that we have had about half as many train shipments as container shipments.

LATANISION: Yeah, that's what I--

MILES: And, a couple reasons for that. We have a limited M-140 fleet. We want to get those containers back to Idaho, get them unloaded, get them back out to be loaded again. But for a particular ship, if there's more than one container on that ship that's needed, then we'll get those together. A shipyard will only refuel one ship a year, typically. So we'll get those one, two, three, whatever containers and ship them all together.

LATANISION: Do you think your view on whether or not service ought to be dedicated or not would be affected if you were shipping more containers more frequently, as would be the case in--

MILES: Not in the case of us shipping our fuel

LATANISION: I'm thinking of the Yucca Mountain. If
we were actually dealing with the sort of frequency that's expected to load the repositories--

MILES: I still fall back on the point that--and this could be a point of contention, but we look at 90, 99 percent of the security and safety of the shipment as the package. That Type B package, and our program's philosophy is that we're going to go design, model and test a Type B package and make sure it has margin to the requirements. I mean, this 14 inches thick could be overkill, but it's effective. And so, the radiation limits, the radiation levels on the outside of that container are two orders of magnitude lower than the regulatory requirements. So, my simple answer is I think you can do it without dedicated trains.

LATANISION: Thank you.

MILES: Provided you don't have some logistic concerns that would override that.

PARIZEK: Parizek, Board. Do states want to ride shotgun on the trains through their state, like trucks?

MILES: No, sir.

PARIZEK: Nobody is asking to do that?

MILES: No, sir.

PARIZEK: And then, given the superior nature of your waste form, which sounds superior to me, plus the containers you already have, could say DOE pick up on this
and use at least the systems you've already put in place over these many years? I mean it seems to me we also have all these trucking experiences, although there may be some other needs, and as the nature of the waste, but here's 30,000 trained people out there ready that DOE might, you know, be able to use. So I'm just curious about how much of a problem it would be to just sort of retrofit your experience onto this DOE program, at least for the parts of the rail system that you've explained it.

MILES: I think the principals that we use for our shipments apply equally well to whether you're shipping one container or 100 containers or a thousand containers. So in that regard, that experience would be directly translatable to what the DOE is doing. I guess I don't want to pre-judge the DOE as to whether they want to do it this way or not. There are other considerations that they are having to deal with. Their shipments are not national security shipments. That's a big difference to us.

PARIZEK: Thank you.

ABKOWITZ: Okay. And Barry, we appreciate it. I thought you did an excellent job of getting--cutting your teeth.

MILES: I'm sure you're much too kind.

ABKOWITZ: We'll have an opportunity to talk with you again in the future. Appreciate it.
Okay, we're going to have our public comment period now. And, as we did right before lunch I would like to ask each commenter to get to the rostrum and express their views. There are four people that we will be hearing from in the following order: Dr. Jacob Paz, Harry Zanville, Sally Devlin and Gracian Uhalde. And, I would like to ask if you would keep your comments reasonably brief and the questions on point.

PAZ: I will. First of all was a question about the benefit for transportation for the county. I make comments to the environmental impact statement, and following. What happens if a truck were stopped to visit working girls of Nevada for recreation purposes? I think maybe you have no (inaudible) no customer. Maybe the state or the local county should have an ordinance.

Second, I heard all the transportation. One thing which I have missing is a medical surveillance. What's happened short-term, long-term, epidemiological study, this was missing.

Second, the following issue is just what you're making as a (inaudible). I don't take any position, but there is, in my opinion--I'm not a lawyer and this probably will be decided by the Court. In June, 2001, the EPA issued standards. The NRC incorporated EPA standard, too. Is final 63 regulation which published November 2001,
about 64 and also the EPA; however, is very much inconsistent with U. S. Code, Title 42, Chapter 6A, subparagraph XII, Part B, Section 300g-1, a federal act.

And one further act, just very clearly, I'll skip a little bit. The best available peer review science supporting study conducted in accordance with sound objective, scientific practice. They got collected by accepted method or the best available methods. I approach (inaudible) for five years. I can support myself in the literature, and also I provide the Board, and I thank you for the reply, DOE did not comply, and it's probably this is an issue which going to be challenged.

The other issue is silica and silicosis. When we have two cases in 140, it's unacceptable. I used to work for OSHA. I work also in Yucca Mountains, and this is raised in many people mind a red flag. I don't want to accuse anyone, but is very serious issue.

Second, which can be also very serious issue, is the question does DOE, is also planning to investigate potential employee exposure. (Inaudible) from zeolite fiber such asaconite, modonite, most reported as a potential causative agent for malignant mesothelioma. And if we have an exposure to silica, why we don't have exposure? This can be some time along the line. And, that's all. Oh, I forgot the surveillance.
For you is the medical surveillance. Now you can go to DOE and use peer pressure.

ABKOWITZ: Thank you, Jacob.

Harry?

ZANVILLE: My name is Harry Zanville. I'm an attorney from San Diego and I represent rail labor, and I listened very carefully to materials presented earlier. I have a few questions and a few comments.

First, earlier, there was a question posed by one of the panelists to the AAR representative that did not come close to answering the question about accident rates. If you would just like to focus on the Burlington Northern Santa Fe alone, just go to the website. On the website they have incident and accident report statistics. The last three years of reporting were 00 to 02 accident-caused releases. Those were accident-caused releases of HAZMAT materials, were between 14 and 17 per year. Non-accident-caused releases were between 143 and 196 per year.

They also admit on their own forum that they have two sets of books. They have a set of non-operator-reported accidents. If you look at that you'll see that it's there. And of course, none of this tracks close calls, which is a matter of fortuitousness. It's just luck. One thing you have in common with all these accidents that cause releases and these non-accidents that
cause releases is that every one of them is preceded in the
course of carrying cargo with a promise, I won't spill it.
There won't be problems. There's no problem. We'll be
safe. And every one of those promises to carry things
safely, without spills and without incident has been
breached.

Now, it's wonderful to say to people, we want to
trust you. You all must know what you're doing because you
are in the business to do it and you are heavily regulated
so it must be safe. That's not necessarily so.

Let me give you an example, without picking on
BNSF particularly. BNSF in its 28 states has about 125,000
switches. Those 125,000 switches all have locks because
since the beginning of railroading, there have been vandals
who want to change the switches. All the locks have the
same key. You want to buy a key, go on the internet. Six
bucks, you can buy it. But if you're a regular track
worker, you probably don't even carry the key. You carry a
cotter pin and pop it with a cotter pin. We have head-on
collisions around the country, including the west, and you
need to ask yourself the question, why hasn't the FRA,
which is supposed to be in the process of making sure we
have rail safety apart from nuclear issues, why don't they
deal with these problems? How can people stand up in front
of you and say, hey, trust us. It's safe.
The problems go beyond that because you're also dealing with contractors who potentially will tell you, well, you know, if there's a problem, we'll fix it. And you can trust us to fix it. And a non-nuclear example is in Mandan, North Dakota, where the Burlington Northern--not trying to pick on them--for 50 years has managed to drop enough diesel into the aquifer that there's about 2,000,000 gallons of diesel in the aquifer. They were sued by the State and they promised after they lost, okay, we'll remediate. That was six years ago. They haven't remediated. And now, when an enforcement acts, their defense is, well, maybe we don't really have to remediate. And these are the people who you want to use this prime rail contractors to do this work. The "Trust me" mentality seems to be, to me, not quite rational.

There are a couple of other comments I want to make. I'll try to make this as quick as I can. One of the questions that our rail labor people have routinely is why are they out there in their non-protective Sears Roebuck clothing next to a train that's got a nuclear load with a guy that has a protective space suit? One of them is either over-dressed or under-dressed. And we really would like to know the answer to that question, and we've asked the FRA and they say they don't know. So hopefully you folks can answer that question.
Are there in fact any radioactive emissions that we should know about? Are we concerned about this? If this is happening now, what will happen when we have a lot more volume that we're carrying? I think rail labor is entitled to know the answers to these questions.

And lastly, I would like to respond to the gentleman who is with the Navy program who said that, "Gees, in rail yards, you just have fender benders." If you would like to contact us we will show you videotapes of non-fender benders that happen in railroad yards. The biggest problem in railroad yards is you have lots of switches. When you have lots of switches, you have lots of derailments. Derailments are, by definition, serious.

So thank you very much for your attention. We look forward to having some answers.

ABKOWITZ: Thank you, Harry.

Our next speaker is Sally Devlin.

DEVLIN: Good afternoon again. That's a hard act to follow and I do know what a cotter pin is.
This is Sally Devlin, your favorite lady, and you're my favorite people. And I do want to say thank you again for coming here.

Before you go I want you to have dessert so if anybody is awake get out your pencil and paper. I want to give you a little information.
And that is, you met our friends from the other counties in Nevada, and remember, we're not the bottom of the barrel, we're only 49th. And I want you to know why I'm so serious about this hospital that the Bechtel BSC gave to us. And that is Nye County, and there's Les Bradshaw, he can verify it. We have over 50,000, over 40,000 in Pahrump with no hospital. You're going to die after 5:00 o'clock Friday until Monday morning at 7:00. I don't know, Lincoln County has approximately 3,000 people. They do have a little facility at Caliente with about 1,000 people. Lincoln County is a wonderful county. They have over 900 kids in the Coop Extension Program and 125 leaders, so you know it is a lovely huge family-oriented county.

Abby told me they have 1600 people in Eureka. And, I don't know Lander County, but Esmeralda County has about 800 people. It's 98 percent federal. In Fishlake in that area, Dyer. They have no phones, no flush toilets. It's really kind of fun. It's like our railroad valley.

So you see we are deprived, and I think it's very wrong because any weather we cannot get over the hump to Las Vegas for the hospitals. We are currently--the last number that I heard was spending over $78,000,000 in Las Vegas for hospital care. This would be cut to more than half if we had our own hospital. And, maybe if we could
1 have major surgery and grow like Fallon has, from 25 beds
2 to 40 beds, and they have less population than we have.
3 So, there's your dessert, my friends. Why we
4 need the hospital, I expect the entire Board to spend the
5 entire rest of their lives working on this. So I thank
6 you.
7 Now, one other thing. And that is, as
8 everybody's mother I do every year on the 1st of January
9 take out my new calendar and I do plan my entire year. And
10 that's how I got my kids through school. X's on the
11 calendar every year and so on. And so, I thought I would
12 give you a brief calendar of my life with father, and
13 whether NWTRB, and this started in '92-'93. And the reason
14 I got into this wreckage was because the only railroad plan
15 they have was for the train to come through Pahrump, from
16 Jane Sandy Valley to Pahrump on the Von Schimdt line
17 through Ash Meadows and Amargosa and up to the test site.
18 And I said, over my dead body, and that's when I went back
19 to school.
20 Now, the other thing that came about that time
21 was in the federal budget, and I don't know if Senator
22 Griet (phonetic) gave it to me or I gave it to him, but the
23 first thing I saw in the budget was for two repositories.
24 And you hear me say that every time. The first budget was
25 $25 billion. The second budget was $35 billion. So it's
in writing. There will be two repositories. No ifs, ands
or buts about it.

And this is what is going on. I've talked to
Russ Stier (phonetic) and we were at a meeting at the
Mirage. I said there was at that time 126,000 metric tons
of HOW. And of course, 14,000 metric tons of DOD
classified stuff which I understand now will go in my alloy
22 which the bugs will eat--thank you very much for
bringing that to everybody's attention. So I know that
will be corrected or whatever you do, and I'm anxious to
see that.

Now, the other thing that was mentioned today,
and again, it was something I brought up years ago when it
was $6 to $9 million dollars. And if you all remember it
was Price Anderson. And the last we talked about Price
Anderson, it was something around $8-9 billion dollars, and
this was for accidents. And I'm hearing today that it now
has something to do with insurance. I don't know anything
about that.

And remember my boyfriend who is my mentor in
transportation who was with the Department of
Transportation here in the state mentored me all these
years, he was with Price Anderson Washington Group. So
anyway, that is something to look into. I don't know how
Price Anderson would be involved in insurance. I thought
just in claims.

And of course, I am not current, but I have always been for years and years with the Governor's Board on Licensing for Shipping of Nuclear Waste.

And I'm going to leave you again with the whipped cream on top of the cake that you just ate. And that is, the State of Nevada looks like this, a big C. Up here is I-80, Interstate 80. Down here is Interstate 15. Here is Interstate 95. And it's intrastate. It is only in Nevada. And, it goes up north, it goes east, and it goes parallel to the center of the state over to Ely through Austin. So that's our major transportation. Three roads. And of course, the interstates are pretty big. But the intrastate is categorized as a nine hazard road because in most areas it is only two lanes. And we had an oil spill and the highway was closed north of Tonopah for 18 hours. So we do have major problems with that.

And of course places like Tonopah, I believe, Les, you can tell me, that they ship their very own by plane to Reno. So that is the closest to them, not us. And they are closer to Douglas County than they are to us. The only other thing I can leave you with is everybody, because it is the new year, say a prayer for our $25 million and hope we get it and I will look forward to your support. And I look forward to, I hope next year, and
throw out no terrible cookies, real food, I guarantee, and everybody be comfortable.

And, thank you so much again.

ABKOWITZ: Thank you, Sally.

Our final speaker is Gracian.

UHALDE: All right, I'm back again to bother you folks some more. I think I regained my composure a little bit. I have to tell you the truth, this morning it was somewhat of a miniature shock and awe treatment for me. I think there's only one description that makes it worse and that's when we're gone.

Anyhow, there's a couple of things that came to my light today that I would like to go over with you.

Since 1981 or '84 when, as Mike Baughman alluded to, there were sounding meetings in Caliente, or whatever. My family has never been contacted by anyone other than the fact we pay taxes in four counties, Eureka, White Pine, Nye, and Lincoln. And Eureka, which is the one that isn't getting anything, is the one that called me on December 29th when the request for the withdrawal was done.

One thing I would like to clarify with you folks, for your information, is that in the ranching industry, the BLM does not want to recognize that we have a property right out there on the grazing. There's a double standard. The IRS, I've been through two estates. The IRS makes you
1 put the whole bundle together, the government, everything
2 that ties into your cattle, sheep, and then they tax you on
3 that. We've paid twice. My father, when he passed away
4 four years ago, we had done a few things to make that
5 better, but believe me, the IRS wants their money and the
6 BLM says you have no rights out there. But there's
7 improvement properties, things, many things, any rancher in
8 Nevada has done by himself--pipelines, wells. Those are
9 our property, and the grazing that goes along with them.
10 So the IRS is more than happy to make you put the whole
11 plan together. And we got audited, and they want their
12 money out of every AUM, animal unit month, that's out there
13 for their grazing.
14 So it's definitely not a free ride and it does
15 make you bitter when people comes in and just thinks they
16 are going to grab it up and tell you last.
17 One other thing I wanted to tell you is just for
18 your knowledge, the railroad MOE, which I think I've got
19 the map of the Caliente corridor, the toll map, day before
20 yesterday. The Air Force flies low-level flights through
21 there. You can see the pilots. Through Garden Valley, Coe
22 Valley, Worthington Pass. I mean these people are there in
23 live color, and you can definitely wave at the pilots.
24 And, the last thing I wanted to tell you was that
25 since the shock and awe treatment this morning, it looks
1 like my family is going to get 40 miles of the railroad. I 2 don't know whether to go rejoice, go bury my head in the 3 sand or what the hell to do, tell you the truth. But it's 4 just, after what I heard this morning was shock and awe and 5 what I heard this afternoon made me sick, from our county 6 officials, if that's what they were.
7 I vote in White Pine County so we're not really 8 that familiar with Lincoln and Nye. One of our main 9 headquarters is Nye County. And, I hear those people 10 asking for consideration from DOE and things and they have 11 failed to do the same for their people, for their 12 constituency.
13 Once again, I would like to thank you. And in 14 closing I would like to say that I'm a sheep herder and I 15 feel like the wool has been pulled over my eyes, and I ask 16 you, please, don't let people pull the wool over your eyes.
17 ABKOWITZ: Thank you.
18 Okay, we're going to resume with the program. We 19 have two more presentations to take care of the agenda for 20 today. The first one is the final prior transportation 21 experiences and lessons learned presentation, and the focus 22 of this one will be on the West Valley spent fuel campaign 23 and speaking on that program will be Alice Williams.
24 Alice Williams is with the Department of Energy's 25 Office of Environmental Management. And she will be
talking about that campaign. It involves the shipment of spent fuel from the West Valley's facility in New York to the Idaho National Engineering Environmental Laboratory. And, I would like to welcome her. I think she has actually spoken at a different microphone earlier today.

WILLIAMS: Thank you. Your day has been long and so I will try and make this a short presentation, but I do want to say that I'm honored to be here to do this lessons learned.

The West Valley Demonstration Project lessons learned is a little bit different than some of the other lessons learned you've heard today because we are through. We did our one-time only shipment of 125 spent fuel elements, and with that our campaign is over and we are out of the business of spent fuel shipping. So our lessons learned are truly looking backward rather than looking at continuing that shipment.

Before I get into the lessons learned, there needs to be some background that I present so you can understand a little bit about what was a very unique fuel campaign. The West Valley Demonstration Project is a cleaner project, and DOE pays 90 percent of the cleanup, 10 percent is paid by the State of New York, and it is on state-owned lands in Western New York.

In 1995 in order to expedite that cleanup process
the Department took title to 125 commercial used fuel elements. 40 of those elements came from the Robert E. Ganay (phonetic) plant and the remaining 85 were from Big Rock Point.

We had always planned on shipping that used fuel to Idaho, but there were several things that had to happen first. It was mentioned this morning about the transnuclear casks that were designed, and eventually DOE took ownership for. And also there were other issues of NEPA.

In 1995, there was a legal agreement between the Department of Energy and the State of Idaho that it would allow this fuel to be shipped after calendar year 2000. In light of that, we began serious preparations for that shipment in 1999. The initial briefings were with the potential corridor states and also with the tribes began in early 1999 and we used the regional state organizations, such as the Western Governor's Association, the Midwestern Council, as well as the existing tribal liaisons to begin those initial discussions.

We also began working with the FRA and these corridor states and tribes in a consultory role with our railroad evaluation studies that the Department had prepared. And we also began sharing our initial shipment plans, emergency management preparedness plans, and
In 2000 we began the negotiations with four railroad carriers. That was Buffalo and Pittsburgh railroad, a small railroad in New York and Pennsylvania, Norfolk Southern, CSXT and Union Pacific, and that was an effort that was one of the longer activities in the project.

We also went back to the Nuclear Regulatory Commission to renew the certification on the two casks. And, we started that in 1999, late 1999.

In 2001 we declared operational readiness to begin unloading the spent fuel pool for these 120 fuel elements, had been in storage for the last 35 years, and also continued working with the states and continued the negotiations on the contracts.

By summer of 1990—or I'm sorry, by the summer of 2001, all 11 corridor states, two tribes, four railroads, the FRA, as well as the demonstration project, and the INEEL were ready to begin shipment and we had set our date for early Fall of 2001.

Now, there's conventional wisdom out there that the reason we stood down that shipment in September of 2001 was because of 9-11. And that is not correct. The reason we stood down the shipment is because the Assistant
Secretary for Environmental Management wanted to place more focus and more emphasis on regulatory requirements in the State of Idaho and as such, directed us to stand down that shipment at that time. So, what that meant was, is that we had two fully-loaded fuel casks that remained at West Valley on the railroad sitting, waiting shipment.

In 2002 DOE directed both the West Valley Demonstration Program and the Idaho National Engineering Environmental Laboratory to begin plans for shipment in 2003.

And what we did at this time is that we took everything that we had worked on in the 1999 to 2001 time frame and essentially reconstituted it. Amazingly, there were very little changes from that plan to what we were planning on doing in 2003, but there was one major change. And that was because of the heightened security. Where we had been very open about our shipment plans in 2001, we went to a strict need to know basis with the states and the state personnel. And in fact with our own people within DOE.

All preparations were completed by the end of June, 2003. And the shipment departed West Valley Demonstration Project on July 13th, 2001. And it's a little hard to see in the picture there, but the train was configured exactly as was discussed this morning. We had
two locomotives, we had a ballast car, we had one cask,
another ballast, the second cask, another ballast car, and
then the personnel carrier at the end.

A little bit about the shipment. I believe that this is one of the largest single fuel movements by rail this country has ever seen. We did ship West Valley fuel by rail in the late 70s so one of those shipments might have been larger, but certainly in recent years, this is the largest fuel movement that the government has made.

Although the Navy fuel shipments, as you heard earlier today, might have been longer, this is one of the longer fuel movements. As I mentioned, it crossed 11 states with the four railroad carriers.

Now, when we finished the project, which was essentially when it arrived at the INEEL at 2:38 a.m. on July 17th, the next and final step with the project was to do a lessons learned, and we completed that in September.

So what I'm talking about now are the lessons learned which reflect, I would have to say, continuous process improvement because the shipment itself was a very successful one that happened with essentially smooth operations on all aspects.

But, the lessons learned that may be of use to future shipments in that this country makes some times deal with rail operations, communications, the shipment
1 schedule, emergency preparation training and inspections.
2 And I will hit these very, very quickly.
3 With regards to railroad operations, I mentioned  
4 before that one of the activities that took the most time  
5 was placing the contract with the rail carriers. There  
6 were several issues that we worked there and this was a  
7 very long and hard process and I'm sure if I had one of the  
8 carriers here in this room that they would echo it was a  
9 long and hard process from their perspective, too.  
10 Our recommendation would be to develop an  
11 accepted contracting approach, especially if it's not going  
12 to be a one-of-a-kind shipment, and use that for the  
13 multiple shipments. Don't keep reinventing the wheel over  
14 and over again because of the amount of time and effort  
15 that it takes.  
16 Secondly, with regards to the route and alternate  
17 routes, we believe that it's very important early on in the  
18 process to have clearly-defined route selection criteria.  
19 Some of the criteria we used was condition of the rail,  
20 length of service, population centers, inspection points,  
21 on and on. I think the models we used had about 14  
22 criteria we looked at.  
23 The map there is showing all the potential route  
24 and route segments. It does not reflect the actual route  
25 we used.
It is also important that once you have chosen the route that you stick to that route as much as possible. And that stakeholders along the route understand the criteria for the route selection. We made no changes in our preferred route at any time. The other thing is is that in our protocol, if there had been a route change that was needed during transit, that would have been the call of the railroad's. It would not have been the call of the Department.

Early on, there were those who wanted us to inspect all of the proposed track segments, and it was the Department's position that we would only do inspection of the preferred route. And that was how it turned out.

Again, stating what I just said, our recommendation is to use the clearly defined route selection criteria, and there are some very good models, INTRALINE and STRACKNET are two that are available at this time.

With regards to communications. The regional coordination meetings in using entities such as Midwest Governors Association, Western Governors Association, was very, very helpful and very successful for us. All of the regional organizations were most helpful to us and were, in every step of the way, crucial to our success.

One of the things that we struggled with was sensitive information and need to know. Who needs to know,
1 and why they need to know was something that we struggled
2 with and I think there were some people, especially elected
3 officials, who even to this day have concerns as to why
4 they were not on part of that need to know. What we worked
5 with is is that the Governor's Office, the emergency
6 management professionals within each state, obviously law
7 enforcement, FRA were on the need to know, and most other
8 entities were not on that list.
9 TRANSCOM. We've talked about this several times
10 during the day. It is a wonderful tool and for the most
11 part it worked well on our shipment. Recommendation on
12 that one is to clarify guidelines for distributing and
13 controlling the sensitive information and enhance the
14 TRANSCOM communications within the states. As I said, it
15 worked very well, but it could have been better on our
16 shipment.
17 With regards to the shipment schedule, this first
18 bullet about the actual shipping date fluctuated. DOE owns
19 that and DOE alone owns that, and to the states, to the
20 FRA, to the inspectors, to the railroad, it drove them
21 nuts, and I don't blame them for being frustrated when we
22 were making requests down on shipment dates early on. DOE
23 could and should have done better on that.
24 On the enroute rad inspections, we had some
25 challenges on this because one carrier in particular was
able to go faster than the schedule that we had worked to, which meant that we were scrambling to get the inspectors where they needed to be on time. That was frustrating for the inspectors. On the other hand, everybody was pleased that we were able to make up scheduling to make this movement faster than we had expected. But again, to the extent possible, to the extent practicable, it is important to adhere to the planned schedule.

Lessons Learned, Emergency Preparedness Training, we did a lot of training along the routes. One of the things that we could have done better and should have done better is that the states lay out their plans in terms of what they need for their training for, not only their full time personnel, but for their emergency personnel about 12 months in advance. They do a yearly planning schedule. It would have been a good idea and much appreciated by those states if we could have coordinated earlier on with them so that our training needs could have been factored into their normal training modules. That would have made sense from their perspective, and it would have made less impact to those professionals along the way.

Moving on to inspections. This is one that we struggled with quite a bit. And there are some things here that were both good and bad. Doing inspections ahead of time as much as possible is very good. We did inspections
on the rolling stock at the Buffalo Rail Yards two to three
days in advance, sometimes as much as seven days in advance
so that if there was any problems with brakes, brake lines,
those could be fixed and re-inspected without impacting the
schedule.

We also did advanced inspections where we had--
Ohio is an example--came on site and did their inspections
before the train left the West Valley Demonstration
Project. We also had some rad inspections that we had done
by non-FRA certified personnel.

In the future, if there are shipments like this
made, and I think the Navy alluded to this as well, one
needs to make sure that there's a protocol so that you are
reducing the number and perhaps in some cases even
eliminating enroute radiological inspections. It takes
time and not everybody sees the value added of those rad
inspections enroute.

In conclusion, shipments like this benefit from a
phased approach. You have the operations side of loading
the fuel on-site. You have the issues of contracts. You
have the issues of working with the affected corridor
states as well as the FRA, and the schedule needs to be
integrated with all those activities, well understood in
advance so that everything can come together at one time.

The contracting system with the railroads is
something that probably needs more work. This was a one-
time only shipment without a lot of history behind it, and
I would encourage those that come after us to make similar
shipments that this is something that needs to be worked on
early and very, very carefully and thoroughly.

Guidelines on distribution of sensitive
information. We've talked about that before. As I
mentioned before, when we were getting ready to ship in
2001, we were open with all information to any interested
party. Again, when the 2003 shipment was made, we had a
different protocol that we followed of strict need to know.

Process for establishing and maintaining
schedule. Again, if there were multiple shipments covering
several years, that would be something that I'm sure would
sort itself out pretty quickly.

National protocol on enroute inspections, I
believe that this is going to be a big item. Enough said
on that.

And again, the radiological training for first
responders needs to be integrated into routine training for
these personnel.

And I spoke fast, I covered a lot, but hopefully
I will be able to answer some questions and that your whole
day has not left you totally and completely exhausted.

ABKOWITZ: Thank you, Alice, and it is appreciated
that you spoke fast, but it was a very clear and
understandable presentation.

We're going to start with Dick Parizek.

PARIZEK: Parizek, Board.

I'm from Pennsylvania so we're kind of anxious to
know what's happening up there to the north.

WILLIAMS: You probably know very well what's
happening up there to the north.

PARIZEK: Well, but the question is, you said it's a
one-time shipment only, but the last logs are still there,
are they not.

WILLIAMS: These are only the spent fuel. We do have
the 275 high-level waste canisters that at some time in the
future will be shipped to the repository.

PARIZEK: All right, so the experience you got here
obviously may have great value to you for those others?

WILLIAMS: We would hope it would, yes.

PARIZEK: Yes. Thank you.

WILLIAMS: And, just to clarify that point, the other
mission that I did not talk about at West Valley is
vitrifying the high-level waste from the fuel re-processing
operations that were done in the late 60s and 70s. The
vitrification is completed. There are 275 canisters of
high-level waste that eventually will go to the repository.

PARIZEK: One more in terms of the inspection along
the way. Is that partly because maybe Ohio was anxious to
make sure it was doing its job and to learn how to do this
better? I mean there may be a lot of people who, the first
time or several times through it want to get involved and
later on it becomes streamlined.

WILLIAMS: I think because this was the first time
shipment of, and because it was so large, that all the
states were anxious to do the right thing and to
participate correctly. So, what you were alluding to, I
think is very much an issue. And, in some—and again, in
my lessons learned, I'm not saying that how we did the
inspections was wrong, but as a first time only one needs
to move on and learn from what they had there.

ABKOWITZ: Dan Bullen.

BULLEN: Bullen, Board.

I'm a little curious about your control of the
sensitive information with respect to need to know. And
was that an offshoot of the fact that the 9-11 event had
happened or because you mentioned that you wanted to
clarify the guidelines for distribution of that sensitive
information?

WILLIAMS: Okay. I'll go into probably more detail
than you want on that, but to answer the question on how
that came about, when we stood down in 2001, we did do a
lessons learned with the corridor states, FRA and the
railroads. And one of the things that they communicated back to the Department is that we had been so open and we had been so excited to tell everybody about this shipment, and all the details of it, that we were actually making problems, not only for ourselves, but also for them along the route.

And, a case in point, we were within, oh, maybe 48 hours of shipment when we stood down. And the railroad TRAINBUS, their website was telling the hobbyists when we were shipping within probably four hours of when we were shipping. So, we had essentially perhaps overdone this. And so, we made the decision that, just in terms of the logistics of this, that there were a lot of people out there who did not really have a need to know what we were doing, although they had a lot of interest for many reasons. And so we essentially shut those communication corridors off.

Now, what happened with that is that we had one local elected official in Western New York who was very, very upset that he was on that need to know basis. And there was a call that was made at the Governor's Office as to who would be told within each state, and so his idea is it was his town. Why couldn't he know? And it got to be a very emotional and critical issue.

BULLEN: Bullen, Board. Just to follow up to that.
It's a very fine line because you really do want to have enough information that the people understand who the material is being is sent to, but also you want to make sure that they have an understanding of it, but there's no reason to tell when it's going through. So it's a real challenge.

WILLIAMS: And I don't know whether we--and this is one where I don't really know the right answer. I was the Project Director at West Valley at the time so this truly resides on my watch. Could we have done it differently? Yes. Should we have done it differently? I really don't know.

BULLEN: Thank you.

ABKOWITZ: Bob?

LUNA: Bob Luna, Board Consultant.

Could you contrast for me the difference between this shipment in which you decided to go out and survey the rails from the yards to the destination and the Naval Reactors Program where they say the railroads do their job and maintain it to FRA requirements. Why should we bother?

WILLIAMS: Okay. First of all, a point of clarification. When we announced our preferred rail route where we said this is the route that DOE wants to use for this shipment, that is the major departure between us and the Navy. The actual inspection of that rail route was
done by the railroads and the FRA, so DOE did not do the actual inspection. That was done by the professionals. And, I think the Navy did a very good job of talking about the fact of why there are differences between, say something like this shipment and what the Navy does.

We, DOE, opted for the particular route that we had here because it was not a national security shipment. It had everything to do with cleanup and getting the 125 fuel elements out of an unlined pool so it was driven by remediation, not by national security. It was a unique shipment. It was going to be a large movement by anybody's standards, and so those are some of the reasons why the Department opted for this particular approach.

ABKOWITZ: Thank you, Alice.

The last word today belongs to the Department of Energy, and that will be provided by Gary Lanthrum. Gary has been formerly introduced earlier today, and he has a formal talk on the status of DOE Transportation Planning, but as I indicated in my opening remarks, we're also encouraging him to use this occasion to respond as appropriate to earlier presentations and discussions that have occurred today.

In his Guide to Stakeholder Interactions--you may not have seen this. The print was awfully small, but it is an indication of the sensitivity to stakeholders, so he is
planning on letting everyone have dinner some time tonight.

LANTHRUM: My challenge is to talk quickly and yet succinctly and understandably, and Alice set a pretty high target for me to try and meet. I may go somewhat quickly through some of the slides that are duplicated. If you miss something because of the speed I try to cover some of the subjects, let me know. I'll be happy to go back.

At the TRB meeting in September I was brand new on the job, and I told everybody that my real focus was to look at the scope of work and then to create an organization that could support it. One of the challenges I had was to reorganize the Office of National Transportation with a project management focus. I wanted to develop a project logic and assign project managers that would be responsible for key areas.

I needed to develop an appropriate transportation scope based on the available budget for this year. That was complicated a bit by the fact that we under containing resolution for a while and weren't really sure what our budget was going to be. We do have it now. We are moving forward.

I was committed to get the Transportation Strategic Plan out, which we did in November. And to begin working with the state regional groups on substantive issues, not just on general issues talking about how great
the transportation was going to be, but on the--trying to work into the details of addressing some of the concerns that they had.

And then to start building the infrastructure necessary to make this program work. I'll just go through the check-marks here. Four out of the five are essentially under way in good terms. And I'm just now beginning the fifth activity, which is to build the transportation infrastructure.

A quick slide that shows the number of sites that we've got around the country to ship from. There has been a lot of talk from other presenters today about the scope of their shipping program. The program that OCRWM has will be substantially larger, both in total scope and the number of shipments. Naval Reactors does a lot of work and they do it very well, and we are taking a close look at the way they've organized. And, to the extent that their experiences translate to what we're going to be doing, we will try to adopt it.

We paid close attention to what EM is doing, but as Alice indicated, they haven't had the number of spent fuel shipments that we're expected to have to deal with. The discussions made by the Secretary of Energy have indicated that we could expect somewhere on the order of 175 shipments a year. That's roughly two a week.
So it's a very significant number of shipments--actually, pardon me, it's 300 and some-odd shipments a year. Let me get my numbers straight here. It's 130 train shipments and 45 truck shipments, and so it would be about two a week, roughly.

On the bottom of the slide it does show that there's a number of 128 sites around the country that would have spent fuel or high-level waste that would be moving. That number has decreased from 131, which you might have heard before. One additional university research reactor has moved all the spent fuel off. That was Cornell. And so the number of sites has gone down, but the amount of content that we have to deal with is still the same. There's just been some consolidation of storage.

We talked about the mission before and the focus is on being able to support safe and secure transportation of the contents that we're responsible for, and that has not changed.

One thing that has gone a little bit more forward, the blue outline is the overall organization for the Office of Civilian Radioactive Waste Management. What has been added to this is the fact that we've got a transportation organization now that is broken down by projects. And the print is really small, but the four projects are basically a national transportation project,
1 and the project manager there is focusing on developing the
2 inventory that will be used for all of our shipments.
3 That's the casks and the rolling stock.
4 There's a Nevada Transportation Project that will
5 be responsible for developing the transportation
6 capabilities infrastructure just in Nevada, whether it's
7 rail or some other mode of transport.
8 There's a Special Projects Project Manager and
9 we've got a whole host of things we have to deal with on
10 the safeguards and security front, on the communication and
11 tracking front, and all of those things wind up being under
12 the Special Projects.
13 And then I've got an Institutional Program
14 Manager and I make some subtle distinction between that and
15 the Projects because that's going to be one thing that, as
16 we transition from building the infrastructure to
17 operations, the institutional program will continue to
18 operate through that transition period.
19 On the budget, we did get in OCRWM a fairly full
20 and robust budget for 2004. Of a $580 million total for
21 the program the national transportation part of that, or
22 the Office of National Transportation, got $63.8, and
23 that's broken down with $44 million for the National
24 Transportation Program and that reflects the fairly high
25 costs of starting to acquire assets for that program.
The Nevada Transportation Program has $18 million scheduled to support their activities this year. And then overall project management is $1.8 million.

Under the key activities, and we'll skip the rest of this slide because I will revisit each of those in subsequent slides.

Here's an overall view of the budget that's gone on with transportation over the past decade or so, a little under a decade. And you can see a fairly high funding level back in the mid-90s that dropped down significantly. And even though it shows some continued level of funding here, this was for waste acceptance and transportation, which was the way things were organized in OCRWM in the past, there was actually no transportation funding during these years. It was all waste acceptance funding, looking at collecting the data that was needed for their operations. In 2003 there was a $10 million dollar budget and that has bumped up significantly in 2004. Again, that's to support the beginning of our infrastructure build-up.

On the project elements, one of the keys was to organize the work elements and collaborate with stakeholders. And we have broken things down into five main projects.

One is the Fleet Acquisition Project, and this is
Ian from Cochema talked earlier today about the fact that we're having initial one-on-one meetings with cask vendors to ask them about ways that they might suggest that we proceed with cask acquisition. Our goal overall is to find ways to meet the entire population of materials that we have to ship. The whole range of contents, and have the vendors propose ways that we might do that most efficiently and most effectively.

And, we're hoping that the experts in the field can come in and propose some innovative solutions to minimize the amount of infrastructure that we have to buy as far as different designs. You've heard a couple of folks say today that for casks you have to have a fairly significant QA/QC program that is ongoing after you've acquired the assets. The fewer different designs that we have to deal with, the more simple our procedures will be for the maintenance program.

And again, those meetings start next week. We would expect the two days of meetings with the initial set of vendors that expressed an interest in talking to us to ultimately lead to a draft request for proposal that would go out in the Federal Register. We would then have pre-qualification meetings with the vendors or pre-award meetings with folks, and before our final request for the
final RFP would go out, and then hopefully, by the end of, actually about the middle of the summer this year, we would expect that the first awards would be made for conceptual design for casks.

And our general approach is not to try and buy casks right from the beginning. But to try and keep the competition among the vendors and to make progress while ultimate decisions on what the configurations of our initial shipments will be, what the exact fuel is going to be, and where it's going to be coming from.

We would like to start off with conceptual designs to incentivize the vendor industry to propose a suite of casks that could support all of our needs. And then from that suite after we get proposals, we would down-select to a smaller subset that we would actually pursue detailed design and certification of, and out of that set of answers we would pursue an additional, again, reduced set that we would actually pursue for fabrication. But the idea being that we would be able to make technical progress before a lot of the decisions that go into effect what we ultimately have to have in place when shipments start to be made.

We talked a little bit earlier about the Fleet Management Facility Project. And we call it fleet management rather than maintenance because it's going to be
for more than just the maintenance function. There's going to be a fairly significant fleet of both casks and transport vehicles that we'll have to have. Not all of those will be on the road at all times, so we'll have to have a storage area as well as a maintenance area. And again, we have been doing studies about where this facility could be or should be located. We're getting lots of feedback from the counties and the affected units of local government, as well as other folks in the industry that have had some suggestions about where a facility like this could be located, I'm expecting that some time this Spring a decision on location would be made.

Again, that's going to be a policy decision as much as it is a technical decision. And part of the interface for that has been working with the repository itself to see if there's any significant benefit that should be part of our consideration where the capabilities of this maintenance facility for transportation might also serve some purpose for repository.

There's a significant amount of operational infrastructure that we're going to have to develop. A lot of folks have talked about TRANSCOM, the tracking system that Environmental Management uses. And you've heard a couple of folks talk about the significant upgrades to TRANSCOM that were made in the early 2000 time frame. It
went from a dial-up system where folks had to pay a long distance phone call to connect to a web-based system. This still has the security that's necessary, but all the folks that have proper access authority in the corridor states and tribes do have access to the tracking information for shipments coming through their lands. And that's good. But, by the time we start shipping in 2010, I suspect there will be a whole lot more that will be available.

There's another system that's in use by the Department. It's called SECOM, and that's the Secure Communications and Tracking System that the folks that move the nuclear weapons use, and I believe that's the same system that Naval Reactors uses to track their shipments. There are some subtle difference between SECOM and TRANSCOM and so we'll be looking at the benefits of both systems.

And we've been talking to the Military Transport Management Command, MTMC, about tracking systems that they are looking at, so we're trying to figure out what the best technology would be to serve our shipments beginning in 2010. No final commitments will be made until we get much closer to actually starting shipments because the technology is evolving so fast that it would be nice to be able to accommodate as many of the new innovations that would have benefit as possible before we actually start shipping.

Another thing that we're doing in this regard
under the operational infrastructure as part of the Special Projects Group is looking at cask vulnerabilities. We're participating in a multi-national effort to assess the threat posed to casks. It's a cooperative effort with France, Germany, Britain and the U.S. The Nuclear Regulatory Commission is also a participant in this study but DOE has got certainly a vested interest. And we're looking at what the real threats might be out there as we reassess the design basis threat that we should be able to respond to, as well as looking at ways that that threat might be mitigated.

And, I'm trying to think of this one other thing here. I think that covers the operational infrastructure, at least at this point.

Institutional is something that has been a big focus here, and there has been a whole range of comments--i was writing furiously on a little notepad I've got. There's a lot of comments that we've got. It's sometimes difficult when you're sitting in an office and you see the amount of communication that goes out, it's easy sometimes to think that that communication is touching everybody that it needs to. And it has been very obvious from the comments here that there's a long way to go in making sure that we can cross all those Ts and dot all those Is.

I was out Monday talking to an artist out in--
along the routes that's got a very, very large structure
he's working on and I was completely unaware of that
sculpture's existence until we got a call from the art
foundation that's sponsoring it.

And so there's not any lack of desire on DOE's
part to avoid communication. In many cases we just don't
know who to communicate with. And, as we find out more the
interested parties, to get people onto mailing lists and
broaden our communication spectrum, there will be more and
more people that will be touched by the long-range plans
that we have. The NEPA mailing list that we have for a ROD
that would be going out, I'm hoping some time soon, right
now has 5,000 names on it. That's a fairly large number of
people that get contacted. But there's always the
opportunity to grow those lists so that's one of the things
we'll be looking at.

We've got the Nevada Transportation Project and
they will be engaged in developing whatever infrastructure
is necessary in Nevada to support the transportation
decisions that are going to be made in the near future.

One of the challenges I've got is to make sure,
not only do we have integration among the projects that I'm
responsible for, but that those projects themselves are
integrated well with the repository and with other programs
within DOE, both the Naval Reactors Operations and the
Environmental Management Operations. So there's a fair amount of integration that has to go on in addition to developing the basic infrastructure for the projects that we're responsible for.

Under the Fleet Acquisition Project, I've already talked a little bit about the fact that we're having vendor meetings. They are scheduled for Monday and Tuesday of next week. The first step, though, in the DOE project management is to establish the mission need, and that was basically created by the issuance of the final environmental impact statement and then the site recommendation that went from the President to Congress, and finally wound up being supported with a congressional override of the Nevada veto. That basically established the mission need for developing the infrastructure.

The next step on the process is just to do a lot of our internal looks at the alternatives analysis. And a number of folks have talked about in transportation planning you need something that looks like a NEPA process. Well, for the cask acquisition effort, we have to develop a cask acquisition strategy that looks at a number of options. Those options wind up being vetted in a recommendation for the option to pursue gets made, and that's part of what's called a CD-1 package. It's a critical decision 1, and we're going through the CD-1
review of our cask acquisition efforts right now. We've had an initial review of our CD-1 package with the Management Engineering Group in DOE and we expect to submit the final package some time this Spring.

We'll also be getting input from stakeholders in the cask industry as I had indicated. But it's not just the vendors that we'll be looking for input from. As we talk to folks around the country we've had a number of meetings with the state regional groups already. We've met with the Southern States Energy Board.

In November just after the strategic plan came out, there was a meeting--I'll get it a little bit later I think, but the Midwest and the Eastern Regional Conference of the Council of State Governments, we met with them in Chicago in December, and next week there's a meeting with the Western Interstate Energy Board in San Diego. We're getting input from the states through these regional groups as they've got input on what our mode and cask configuration ought to be.

As I mentioned, that our initial procurements will be for conceptual designs. We want to get ideas about how to move the process forward without locking ourselves into a final procurement commitment.

We have done a lot of work on documenting our project scope, our schedules and our resource requirements.
And that has been this whole approach of doing project ties to the management of the transportation development effort. We've got, I think at the TRB meeting in September, John Arthur had a piece of what he called his decision logic diagram for the repository, and there were a number of activities on there with milestones. That's becoming a more important internal management tool, and since the September meeting the transportation lines on that effort have been filled in with a considerable amount of additional detail and milestone data.

Also part of the Fleet Acquisition Project is our Rolling Stock Acquisition. That's a little further behind. In fact, when we started developing our CD 1 package, we initially tried to include both the casks and the rolling stock. The rolling stock situation was not nearly as well vetted as the casks. We've divided the two now. We're pursuing the casks before we do the development of our rolling stock, partly because a lot of the decisions that are going to affect our rolling stock acquisition haven't been made yet. Until the decision on whether to use mostly rail or mostly truck is made it's pretty hard to tell whether we should be buying truck trailers or rail cars. So some of the decisions that our predecessors do to moving out on the rolling stock haven't been made yet. And we are working on that CD 1 package.
The other thing we're looking about is the impact, as Bob Fronczak and others talked about, this new AAR standard for rail cars. There was some pictures shown of a car that's being developed by Trinity Manufacturing for the private fuel storage system, and they indicated the car had been built and some of the model testing had been done and the static testing, but the dynamic testing was on hold until some decisions were made about what the status of that actual project was.

That's just one of the car designs that we would need, though, would be the load-bearing car. The standard applies equally to the buffer cars and to the security car that we would have in any train construct that we might use. And, how we might acquire either rights to existing designs from somebody like Trinity or start developing our own designs is something we're doing a lot of thinking about.

It's probable that our initial approach is going to be to say that we are interested in the AAR standard design. We would like to have proposals from, again, the industry on ways to meet the design. And since Trinity is the only company out there that's done any work on it, they would be a prime competitor, but I suspect that there would be others that would step up to the plate and might have different approaches or different answers to meeting the
1 standard than the one that Trinity has come up with.
2 On the fleet management facility, we're looking
3 at the functional requirements, the size of the cask fleet.
4 The maintenance requirements for casks are outlined pretty
5 thoroughly, 10 CFR 71, Subpart H. That's the QA/QC
6 requirements that the RC establishes. And, in those
7 requirements, it's pretty easy to see what we'll have to do
8 with each of the casks we have to have.
9
10 The other thing that we're looking at very
11 closely is trying to model the time it takes to get a cask
12 from a storage facility, wherever it's located, to a
13 shipper, how long would it take the shipper to load the
14 cask, how long it would take to get enough casks loaded to
15 construct either a train or a set of truck shipments, how
16 long would it take those shipments to get from the shipper
17 to the receiver at Yucca Mountain, how long it would take
18 Yucca Mountain to unload the cask, and how long it takes to
19 return the cask from Yucca Mountain to the maintenance
20 facility, and how long it takes to do the maintenance. And
21 that cycle of looking at the flow of our assets is
22 important to understand how many assets we need to have.
23 If the casks are tied up for significant periods of time,
24 either in loading or unloading or in the maintenance
25 aspects, then the size of the fleet that we would
26 ultimately have to have would have to increase over a model
1 of our operations that might shorten the durations at both
2 the shipper receiver and the maintenance facilities.
3 There's a lot of work going into assessing what the
4 flow of casks would be and that's going to drive, to some
5 extent, the size of the facility, both in terms of storage
6 pads and in terms of maintenance bays.
7 We have similar challenges with the rolling
8 stock, although for the rolling stock we don't anticipate
9 doing heavy maintenance and repairs of any rolling stock at
10 this facility. It would be only for the ongoing routine
11 maintenance that we would be targeting.
12 Inventory control and inspection, that ties into
13 this whole idea of modeling the flow of our assets through
14 the operational system. We are looking at the drivers on
15 the acquisition strategy that the maintenance facility
16 would have. Again, that's primarily on the number or
17 quantity of casks that we would need of any particular
18 design to make sure we could support the operational
19 desires of the program.
20 Again, it's the same issue of capacity and turn-
21 around time. And we've done a fair amount of looking at
22 what the costs and benefits would be associated with where
23 the facility would be located. If we do build a facility
24 outside the land withdrawal area, a separate environmental
25 impact statement would be required for it, and that is part
of the decision-making process that would have to be considered before a siting location decision is made.

We are working with the repository about the extent to which this maintenance facility might support some of their needs as well as transportation needs. And after we've gone through most of that we will prepare our acquisition strategy package for the fleet rolling stock. We are holding the integration and technical exchange meetings with the Yucca Mountain staff. As I indicated, we had our first major meeting back in December. And our next meeting is tentatively scheduled for the week of February 9th.

This is an extract that comes from data that was presented in the final EIS, and it shows largely what's driving our preference that was stated in the EIS, for a mostly rail scenario for our mode. If you have a mostly rail scenario and you've got a target of roughly 3,000 metric tons per year through-put to the repository, with the capacity we anticipate for each rail cask and with an estimate of three casks per train, you wind up with about 130 trains a year, and about 45 trucks a year. Again, that's a very wild guesstimate right now because we don't know what the specifics of the material that would be shipped initially are. But that's a ball-park estimate based on current cask design capabilities and operational
There was a lot of talk earlier about a holistic approach to rolling out the transportation program. I've got two main areas I'm concerned about right now. The first is the procurements of my infrastructure and this just shows some of the considerations we have to take into account. For the size of our fleet, both for casks and rolling stock, we certainly are getting vendor input. That's starting next week.

The facility capabilities, and that's--a facility capability isn't a very broad construct. What the shipper sites, both the commercial power plants and the DOE sites, what they have in the way of lifting capacity, ingress and egress capabilities for transportation, other basic infrastructure capabilities that the facilities have is going to drive some of the considerations I have to take into account for procuring casks and rolling stock.

The maintenance facility, the capabilities of that for throughput is going to drive the decision. There's a lot of talk about risk mitigation strategies, and again, that's in the context of the design basis threat that we feel that we have to address. And that will be something that evolves over time.

And waste acceptance schedules. Now, out of all these things that drive our needs, the facility
capabilities is something that I don't control. The waste acceptance schedules is something that I don't control. And those are probably two of the largest drivers about the size and configuration of the fleet that I have to procure. And that's part of why we're trying to pursue a strategy that would let us move forward technically without making ultimate commitments about what the actual configuration of the materials we would buy would be.

On the operational drivers, there are certainly regulatory requirements. We will have to have casks that are certified by the Nuclear Regulatory Commission. There are other regulatory drivers that would affect our operations. Those are going to affect the operational planning.

The operational protocols. A couple of folks, I think the Naval Reactors folks mentioned the protocols, the DOE manual that talks about how shipments are made by the Department. That's one of the areas that drives into us. But also in there the stakeholder needs routing decisions that would ultimately get made based on interactions with our stakeholder community and where we go with the emergency preparedness operational planning.

We've got equipment and facility limitations on operations. We've got enroute security questions that haven't been completely answered yet, and we've got
interaction and integration with other DOE elements for consistency. I don't think anybody would like to see different operational requirements or significantly different operational requirements for spent fuel shipments that are done by EM as opposed to spent fuel shipments that are done by OCRWM. So we're trying to make sure that whatever is done is done in the context of the protocols and that there is as much a uniform approach as possible within the constraints of the fact that some of the shipments the Department does are covered in our national security while others are not.

This is a slide, I think you've seen a number of times before in a number of different contexts, probably, but it gets back to the heart of the fact that what OCRWM will be doing is not completely new; that there is a significant history and good safety record for shipping spent fuel. There has been roughly 3,000 shipments in the U. S. over the past 30 years. And our numbers may not completely jibe with the Naval Reactors on the 738 containers shipped, and over a million miles since 1957, but again, it's a significant safety record.

Internationally, there's an average of 650 shipments per year in France and Britain. Although that number seems a little bit low based on the information that Ian presented earlier today for Cochema. And so we may
have to revise that upwards.

All the changes, though, so far have indicated that the experience is growing and that experience has been successful as far as the transportation of spent nuclear fuel. We will continue in OCRWM to review the experience and the lessons learned from other programs and as we build our operational infrastructure make sure that we tap into that as much as possible.

On the security we will, and we had a commitment for some time to work with state regional groups and tribes in developing approaches to securing the shipments. And we're exploring a number of options currently. I know there were some challenges with the shipment out of Oak Ridge that EM did last year because of the escort requirements.

Very, very early in the planing process there was consideration to using essentially rent-a-cops. But if you're required to have armed escorts, the only way that you can use a private security force is for them to get weapons permits from every jurisdiction they would pass through along the way. That's a nightmarish proposition if you're looking at a couple of shipments a week to try and get that level of permitting across the country becomes basically unmanageable.

Now, there's significant experience, both with
the Naval Reactors and with the Office of Secure
Transportation under the National Nuclear Security
Administration, the NNSA folks, they have federal agents
that they employ to protect their shipments. And as
federal agents, they have arrest authority, their weapons
permits are good in all states around the country, and
that's one of the options that we're looking at, as well as
a host of other things that might be possible to provide
the level of security that I expect will be necessary to
2010 when we would start shipping.

We're also tapping in to the Department of
Homeland Security, and our last meeting with our
international partners looking at cask vulnerabilities. We
did pull DHS in. That was a first substantive involvement
with them, but we will expand on that as we move forward in
operational planning as well.

The routing issues. For highway, there's been a
lot of highway shipments, particularly within the
Environmental Management Program for both the transuranic
waste and, to a lesser extent, other fuel shipments. The
DOT requirements are pretty explicit for highway; that the
routes are selected to reduce the time in transit, that the
vehicles operate over a preferred routing system that
includes interstate highways, including the bypasses and
beltways that are available. But that states and tribes
may designate alternate routes in addition to or in lieu of the interstate system.

There's also allowance to go from a shipping site to the interstate system, and from the interstate system to a receiving site that would get you off of what would normally be preferred routes.

For rail it's a little bit different. The reason that states and tribes have a lot of latitude in choosing routes that are on the highways, those shipments go through their lands. The property is either tribal property or it's state property that it crosses. With rail, the shipments are on private property. The railroads own that land. And so it's a little bit of a different situation.

And if you go with the standard industry practices for rail shipment, you have the same basic guidance where they try to minimize time, distance, they try to minimize the number of carriers, the number of interchange point. They try to maximize the use of best track, which loosely correlates to using the interstate highway system for highway shipments. But there's not the latitude for states and tribes to contribute to routing decisions. You basically tell the industry, this is the site we want it to be picked up at, this is the site we want it to be delivered to. Do the right thing. There are other options for influencing those decisions, but if you
use standard industry routing practices, this is the procedure that would be followed.

It's a map here that has been shown a couple of times during the day in several different presentations that shows the routes that were in the final EIS.

When the corridor preference came out there has been some challenge to whether DOE had a rationale for stating a preference for one corridor over another. That rationale was in the notice of intent, in the Federal Register notice, and it did indicate that the primary guidance was to minimize land use conflicts. And we had a number of comments that were contributed at--based on the final environmental impact statement.

The State of Nevada and the City of Las Vegas have been unwavering in their opposition to any shipments through the Las Vegas valley and so we took that into consideration, understanding that any attempt to choose either the southern routes, either the Jean, down in here, or the valley modified route, both of those largely would go through what could be loosely looked at as the Las Vegas valley. The challenges that were issued there would result probably in land use conflicts that would inevitably lead to litigation and would delay our ability to move forward.

There has been a number of folks that have talked about the advantages of using what's called the Caliente
Chalk Mountain route that would go actually through the Nevada Test and Training Range and through the Nellis Range. The Air Force made as much noise about that not being a viable option as the State of Nevada and the City of Las Vegas made about routes that would go through Las Vegas Valley. They made it clear in no uncertain terms that they could take us on and lick us if we tried to move them through that area.

That left basically two options left to us. The Caliente route that comes in from the southeastern part of Nevada and wraps around the Nevada Test and Training Range to the repository, or the Carlin route that comes in from the north. And then from the northwest corner of the Nevada Test and Training Range is concurrent with the Caliente route. Of the two routes, the Caliente corridor had the fewest land use conflicts. There was more private land that would have been impacted by this route than there was by the Caliente. So it was a fairly straightforward guidance that directed our stated preference.

We did, in our Federal Register notice and in the letter to the State of Nevada, ask for comments that would pertain to an ultimate decision that would be made on a route and a record of decision, and we're still waiting for input.

Now, recently, we started getting I think some
comments in from a number of folks. We've been getting calls from, again, the Air Force and the Department of Defense trying to clarify areas of the Nevada Test and Training Range up around Goldfield and down further around Scottys Junction. We're working with them on those, but they will be accommodated through the public process if in fact we do select rail as our mode--or mostly rail as our mode of transport. There will be a fairly lengthy process for doing an EIS for that rail alignment. And the Air Force, private parties that would be affected, there's a significant opportunity for influencing the actual detailed routing of that rail within the corridor.

Here's a comparison, roughly, of the five corridors. And actually, if you go to the EIS for the repository, the final EIS, if you look at just purely environmental factors, the overall environmental ranking for the five corridors did not make any significant--did not provide a significant driver for a decision one way or the other. The overall environmental ranking for disturbance, for effect, was pretty much even, and to the noise level for the difference between the five corridors. The lifecycle cost certainly is a big difference, and a number of people have pointed that out; that the range in 2000 was from $880 million for Caliente down to as low as $283 million for Valley
In our Federal Register notice for our preference, we addressed that issue as well, indicating that the anticipated damages for not picking up fuel and starting our shipments in 2010, there have been a number of estimates and claims from the private sector on the costs that they would incur and the damages that they have claimed. The private sector is claiming damages on the order of a half a billion dollars a year. EM in an earlier estimate looking at the facility costs, if their high-level waste started to be picked up in 2010, estimated a capital cost of $500 million for facility costs just to provide ongoing storage capability for these wastes.

And so, looking at the impact of not starting to do shipments in 2010, we're looking at on the ball-park of a billion dollars for the first year and half a billion dollars each year after that. And that makes a strong argument that if you pick a corner that would be cheap to construct, like Valley Modified and yet had significant land use conflicts in trying to exercise that corridor, the delays in being able to actually start construction could easily wind up costing much more than picking a route where the construction costs would be higher, but where you anticipate the land use conflicts to be less.

That said, we fully understand that any decision
is going to have an impact, and that we will—as we go through an alignment EIS process if rail is selected, there will be every effort made to accommodate the folks that would be impacted by decisions that are made as the actual alignment itself is plotted out.

This captures the sequence of events that, on December 23rd there were a number of phones calls, faxes and other communications made that a Federal Register notice was coming out. That notice was published on December 29th, and on the same Federal Register notice was the publication of a land withdrawal to protect the lands in which we, or at least the corridor that we had selected, from any other encroachments, and the land withdrawal itself only prohibits additional action on that land. Even though the corridor was stipulated as a half mile on either side of the center line for the existing alignments within the EIS, that withdrawal was only for the BLM portions, and it's fully anticipated that as we go through the actual alignment process, the amount of land ultimately affected would be considerably less. We needed a fairly wide swath so that there was some flexibility on the exact alignment of the corridor if in fact rail was chosen, so there was some latitude and we weren't locked into a very narrow statement of where the actual track would be built. And so we want to keep as much flexibility as we can as we get
into the process, as we enter the process if we wind up choosing rail. The actual widths of land affected would be considerably less than the portion that was withdrawn.

The next steps are to issue a mode and, as appropriate, a Corridor Record of Decision. And I say, as appropriate, because if we don't select mostly rail then there's no need for any corridor selection in Nevada. It would be back to a discussion of highway routing or heavy haul routing.

After that, if we do select mostly rail there would be an additional NEPA process. We anticipate that process would be approximately 24 months long, but there would be another notice of intent that would be published in that notice of intent there would be a scoping period that tries to get input from the public and everybody that would be affected to how we might scope the process for dealing with, ultimately, rail alignment. And we would anticipate that would start some time in the next couple of months if we can get the decisions made. That's something that we're working on diligently now.

On the institutional project, we have the four-state regional groups that we deal with. With one exception it's the same groups that EM deals with. That one exception, as Ralph Smith indicated, works with the Western Governors Association. OCRWM deals with the
Western Interstate Energy Board. The two are tightly joined at the hip. A lot of the same people are on both the WIEB and on the WGA groups, and so there's good communication between the two and that's not a significant deviation.

But the four groups were invited, the four groups that OCRWM deals with, were invited back for a meeting with the Under Secretary of the Department of Energy back in November. That was when we rolled out the strategic plan, which, as a couple of folks have noted, is largely an institutional plan.

And in that meeting a commitment was made to work substantively with the state regional groups on issues that they have, and open the door for vendor-proposed projects that would move both their desires forward as well as helping to better inform the OCRWM decision-making process on development or transportation infrastructure. We talked about that at the meeting of the Midwest and the Eastern Regional Conference of the Council of State Governments back in December and I'm hoping that some project will be proposed in the near future, but there are a number of areas where we could collaborate on developing both the decision-making process and the infrastructure necessary, and I'm hopeful that that's going to be successful.

And these are some bullets that address to that.
We did get the transportation strategic plan issued. There was a meeting actually the day after the meeting with the Under Secretary with the Southern States Energy Board. We did have a December meeting with the Midwestern Office and the Eastern Regional Conference, the Council of State Governments, and there is a meeting next week with the Western Interstate Energy Board.

What our strategic plan did was that it fulfilled a commitment by the Secretary to get a plan out in 2003. It does again reiterate what the transportation mission is. It commits to developing a safe, secure and efficient transportation system and the real goal is ultimately to operate in a way that the public can rely on the system without question. And that would be approached through three goals. And one is the open collaborative planning process, and based on the comments today, I understand that there's a fair amount of work that needs to be done to make sure that we reach out to all the affected parties.

To develop a safe and secure system and the related infrastructure based on that collaborative planning. And then, to complete the transportation system development and validation in time to begin operations in 2010. And I think that's all achievable.

We are talking to other DOE programs about their past experience. OCRWM did participate in the lessons
learned meeting that was held in Las Vegas for the EM shipment out of West Valley. There's going to be ongoing participation with decisions that are made both in the EM side and even Naval Reactors, despite the fact that they are working with national security shipments has been very generous in sharing some of their planning activities and the approaches that they've got to them. There has been a lot of discussion about the relative merits of dedicated trains and what drives the decision-making process in both the Naval Reactors and in the Environmental Management Program.

OCRWM is committed to working with all the interested parties. That's not just the states and regional groups and tribes, but also individual stakeholders. We do have a meeting that we co-sponsor with EM, was held last time in August of last year. It's the Transportation External Coordinator's Working Group. It's a chance to bring a lot of people with different disciplines from both industry, the private sector and government sectors in to talk about transportation issues. There will be a number of other meetings that go on. I believe next Thursday there's a tentative meeting--in fact, I think it's a lot more than tentative now, with the affected units and local government out at the Yucca Mountain project. I'll be back in Las Vegas to meet with
folks for that discussion. We are open to other meetings on an ad hoc basis with interested parties and groups, and the challenge is just going to make sure that we reach out and identify all the groups that could be affected and get enough communication to them so that they can provide their input. And that's not easy. There's a lot of people out there that are affected by it, particularly when you look at the national spectrum of where our shipments could ultimately go.

One of the benefits of this being a program with a repository that will ultimately have an operating license issued by the Nuclear Regulatory Commission is that there is a culture of compliance that's associated with going through that certification process now, that licensing process. And even though the transportation piece of OCRWM is not going to be licensed, per se, or certified, per se, by the NRC, being under a management chain that has to develop a culture of compliance is affecting the things that we're doing in the transportation arena. And we will be part of that same corporate culture, and I'm hoping that will help build confidence as we develop the operational details with folks. And I know when we issued the Transportation Strategic Plan, there are a lot of people that didn't want to see an Institutional Plan, and didn't want to see a Strategic Plan.
What a lot of folks want to see is an Operational Plan. They want to know what's going to be done, when it's going to be done, where it's going to be done, how it's going to be done. But we can't do that by ourselves. We can't just develop behind closed doors an operational plan that we issue and then try to defend with the rest of the world. What we would prefer to do is to develop an operational set of approaches with our interested stakeholders so that when we do announce something it already has a certain level of buy-in and acceptance. That's certainly my goal.

The Institutional Program Activities, we'll build on an established regional planning process. There was a lot of work that went on before OCRWM got back into the transportation business. We will participate in and support the Transportation External Coordinators Working Group. We are working cooperatively to develop transportation, institutional and communications approaches. We will work together on the routing assessment and the methodology for establishing routes. I don't think the routes themselves will come out any time soon, but the process for selecting routes and the criteria for selecting routes is something that we can have substantive discussions on.

We will work on identifying and summarizing
existing emergency response capabilities. Back at the last
TRB meeting in Amargosa Valley, I had discussion with a
couple of folks from the smaller counties in the state, and
as was indicated today, a lot of emergency responders are
volunteers. And if those volunteers have to take time off
from work to attend FEMA training and possibly now
Department of Homeland Security training, if OCRWM puts
additional training on top of that that's not well-
integrated, it becomes a burden rather than a benefit. And
our goal is to make sure that whatever we develop in terms
of emergency response planning and training through the
grants to the states, is integrated well with what
currently exists in the states.

And that was one of the activities that I had
suggested to both the Midwest and the Eastern Regional
Conference in the December meeting was a good project would
be to develop assessment of what currently is in place,
what in that process works, what doesn't work, and to build
on that rather than to start from scratch in trying to
build something just for OCRWM that's not well integrated.

Along with that the approach to 180(c) funding.
A couple of folks had alluded to the draft 180(c) funding
report that came out in the 90s. And in that it proposed
coming out about four years in advance of the initial
shipment time with the initial planning grants. I think
that might still be a good planning time frame, but again,
we're open to input from the state regional groups and the
tribes about how we might proceed and if a more accelerated
schedule would be appropriate, would be more than happy to
address that.

This goes a little bit more into the Nuclear
Waste Police Act. It does require the Department to
provide technical assistance and funds. There's a bit of a
difference between what we are required to do under the
Act, and what EM has done. EM is actually charted to, not
only to provide, but actually to conduct the training.

And so, Ralph Smith and the folks at the Waste
Isolation Pilot Plan have been out doing a road show around
the country. OCRWM's charter under the act is to provide
grants to the states and tribes.

And the states and tribes will be responsible for
how that funding is rolled out through their lands and with
their affected groups.

We will work as proactively as we can to make
sure that that's well-integrated with the local
communities, but that's really not the OCRWM call. And
under the Act it's something that--it's a bit of a
challenge, because again, the states do have decision-
making authority in that regard.

Again, the original proposal for the policy and
procedure, the draft versions came out in '98. We've
gotten lots of feedback from folks that would participate
in this effort to not start from scratch, to dust off what
was already done, to clean it up and to revisit that as a
starting point rather than starting from scratch, and we're
happy to do that.

We will work with the state regional groups and
tribes. And again, the strong goal is to make sure that we
do a good assessment of what's currently in place, what
does and what doesn't work about it and build on that
rather than starting from scratch.

And we will finalize our policy and procedures
based on this ground work and do it as a bottoms up effort
rather than a top down effort, which is often the mistake
that's made in large projects.

Our communication is going to be two-way. We
will try to communicate with the affected parties early and
often. Again, to the extent that we know who all the
affected parties are. And that's going to be a constant
challenge is to make sure that we have done everything we
can to reach out and identify new players that might want
to be involved now that were not involved in the past.

We will build on our past experiences and the
lessons learned. We're analyzing both the successes and
the challenges. There's lessons to be learned both in the
1 positive and the negative. Both will be taken into
2 account. And, we will work with all the stakeholders in
3 moving the process forward.
4
5 The selection of transportation routes. If it's
6 highway shipments, there's a very clear process for how
7 routing would be developed and deployed. If it's rail
8 routing, the process is not as clear as far as the role
9 that states and tribes would have in making routing
10 decisions. Again, if it's rail routing, we will use
11 industry practices. And we would charter or contract or
12 work through tenders with the railroads to pick up at one
13 place and deliver at another place. The railroads do have
14 industry practices that mirror the DOT requirements for
15 highway transport, but it's a different process as far as
16 the amount of input that's allowed from the states and
17 tribes.
18
19 We will be looking at the emergency response
20 planning and our operational practices.
21
22 Here's a brief look at some of the projects and
23 the priorities that we're working on in 2004, 5, and 2006
24 and beyond. We're still heavily involved in assessing what
25 our infrastructure needs are going to be in 2004. Looking
26 at maintaining and expanding, possibly, the cooperative
27 agreement activities that we fund. Developing our
28 acquisition strategy. The actual procurements won't go
very far this year, but also paying a lot of attention to
the interface with the repository.

In 2005, we would transition more from the
acquisition strategy to more actual procurements, both for
casks and for rolling stock. We expect to expand on
looking at the existing infrastructure capabilities at the
shipping sites, both the DOE shipping sites and the
utilities. Working with the SRGs, that's the state
regional groups, on projects that they bring to the table
that would help further their needs as well as develop the
approach that OCRWM would take. And developing any needed
Nevada transportation infrastructure will be big focal
points in 2005.

And, 2006 and beyond, we'll be transitioning
slowly from primarily building the infrastructure to moving
into operational planning and operational agreements with
all the affected parties. That's the rough layout of the
program.

Again, just a quick summary that I committed last
September to reorganizing the Office of National
Transportation with a Project Management focus. We've done
that. Developing a project logic and assigning project
managers. That project has gone quite a long ways towards
completion. The decision logic diagram that John Arthur
maintains does have a whole lot more milestones for
transportation now. And we have issued the Transportation Strategic Plan. We have begun with the state regional groups on some substantive issues and we've challenged them to come forward with projects that can help move the process forward. We have stated a preference for the Caliente corridor with Carlin as the backup.

And in a NEPA process typically what's done, as you go into a NEPA effort, you analyze a range of alternatives that could support what you're trying to do. Typically at the end of the NEPA process when you issue your final EIS, you frequently come up with your preferred alternative and then at some later point you make your record of decision.

In the final EIS for the repository, when that was published the preference for mode was stated in the EIS and it was for mostly rail. But no preference was stated for corridor. And, we felt it was appropriate to follow along with traditional NEPA process to state our preference for corridor before final decisions for either mode or corridor were made.

And that's pretty much it. Questions?

ABKOWITZ: Gary, thank you very much. That was a lot of material briskly delivered and well received.

We're going to have questions, I'm sure. So if you will bear with us as we go through those. Before I
1 turn it over to the Board I do have a question from the
2 audience that I would like to ask you first.
3 You mentioned that in the DOE Federal Register
4 this notice of preference, and carefully used that word as
5 opposed to notice of intent, and that you asked for
6 comments. And it has been pointed out that a close reading
7 of the Federal Register notice does not indicate the DOE
8 specifically requesting comments. And so, the question
9 that has been brought forward here is whether DOE has asked
10 for comments in the notice and what they would do with them
11 and why this was the notice of preference instead of the
12 notice of intent.
13 LANTHRUM: Well, it was a notice of preference because
14 that's what we do. We issued a preference for corridor.
15 And, I thought I had indicated that we had communicated
16 with the State of Nevada in the letter to the Governor
17 asking for any comments that they would have in this
18 regard. The notice of preference that came out in the
19 Federal Register did not ask specifically for comments. It
20 did indicate that there would be no less than a 30-day
21 period between when the preference was stated and an actual
22 decision would be made. And comments have come in based on
23 that allusion, but there was no specific request for
24 comments.
25 ABKOWITZ: So we're not formally in a comment period
1 then?
2 LANTHRUM: No, we're not formally in a comment period.
3 When we issue a notice of intent if a record of decision
4 comes out for mostly rail, that would be followed up with a
5 notice of intent for conducting a rail EIS. And, we would
6 enter into a period then of doing the scoping process,
7 which would be a 30-day period of getting input on the
8 scoping--the scope of the rail alignment EIS. And that
9 would be more like a comment period.
10 ABKOWITZ: Thank you. We'll start with Dave Duquette.
11 DUQUETTE: Duquette, Board.
12 I'm looking at your time line a little bit, and
13 if you want to start shipping by rail in 2010, that means
14 you've got to start building in 2006 because it's 46 to 48
15 months to build a line. Your request for license
16 application is going in no earlier than December 2004, and
17 even that may be delayed. I would be surprised if the NRC
18 likes it 100 percent. So I can see a delay with asking
19 you--asking you, the DOE, for more information. And that
20 could stretch out for some period of time. What are you
21 going to do if it stretches out past 2006?
22 LANTHRUM: Well, I would fully expect it will stretch
23 out beyond 2006. This schedule would require start of rail
24 construction before construction authorization for the
25 facility. And that's a decision, it's a policy decision
that hasn't been made. We haven't entered into discussions about that. And I don't think it is the right time. There's a whole lot more information that will be available as we get close to '06 about whether pre-CA construction for a rail line would be appropriate or not. And I don't think it's a decision that needs to be made now, but I have made it very clear with our project planning that if we're going to have rail available in 2010, it would require pre-CA start of construction. And if we don't start construction of the rail line before then, there would be essentially a day for day slip when rail could be available as opposed to when it would be available if you did start in the 2006 time frame.

DUQUETTE: Duquette, Board. Just one other comment. This was brought up by the local officials from the counties. Who is going to own the railroad? Or the rail line.

LANTHRUM: Haven't determined that yet. There are a whole bunch of issues associated with operations that have not been determined yet. Back a year and a half ago, in the Fall, there was an effort, an initial request for a proposal for a transportation integration contractor. That was then pulled back off the street. That's one of the options that's being considered. There's a lot of options that could address how that rail line would be operated.
You could contract with a number of rail operators short line and others that would perhaps be interested, but those decisions haven't been made. And there's a lot of work to be done on decisions on scope.

Again, since we don't know what the actual scope of the initial shipping program is going to be, it's premature to talk, having discussions with folks about who would be interested in operating. The volume of work that we will be doing, the number of shipments, it's a big deal for the Department, but for overall transportation it's a very small scope of work. And, that's going to be one of the challenges as we look for operators that would be actually interested in taking care of the day-to-day activities.

There's a whole bunch of questions along that line with the, not just the operation of the rail line, but operation of the maintenance facility, where we try to do that with an M & O contractor or have a special contract just for that facility. All those questions will be answered somewhere further down the line as we get a little better informed about what the scope of work is going to be.

ABKOWITZ: Dan Bullen?

BULLEN: Bullen, Board. Could we go to Slide 9, please? The question that I have basically deals with the
procurement of casks. And I'm assuming that you're going
to have essentially already NRC-certified casks for all of
your fleet?

LANTHRUM: We have to use an NRC-certified cask.

That's part of the Nuclear Waste Policy Act.

BULLEN: I guess I'm a little bit confused by the
initial procurements for conceptual designs are expected
during this calendar year. Aren't those designs already
complete?

LANTHRUM: No. There are certified casks available
out there, but the casks that are available currently don't
support all of our needs. We anticipate some brand new
designs from scratch would be required to support our
shipping program.

BULLEN: Bullen, Board.

I understand that, but will you also be procuring
designs that are already complete? I mean there are more
feasible and workable casks out there that you--

LANTHRUM: There are. That's part of the feedback we
want to get from the cask vendor industry. As they come in
and talk to us they will hopefully have good advice about
what would be an efficient suite of casks that would
support our needs, and if that would be made up of some
casks that currently exist.

There's actually three types of tasks that we've
thought about. There's casks that already exist that are already certified that might support some of our needs. There's casks that already exist that could have minor physical or licensing modifications made that could support more of our needs. And there's casks that could be designed from scratch. And that range and that mix is something we'll talk to the cask vendors about, about what their recommendations are, how to move forward most efficiently.

BULLEN: Bullen, Board.

This is a much easier decision after a record of decision on the mode is completed. Is that not correct?

LANTHRUM: Well, right. Well, the initial discussions with the cask vendors on these suite of casks is going to be here's the run of material we have to move. What are your recommendations of how best to move it with casks? And with either of the mode decisions that are pending, whether we go with mostly rail or mostly truck, the option is there for the other mode to still be used. And so we would expect, regardless of what ultimate decision is made on mode, you could buy some rail and some truck casks. And certainly from a conceptual design standpoint it would be viable to move forward. And, as we make a decision, the mix of the fleet of casks will certainly become clearer, but I think in any case there will be need for some of each
 type.

BULLEN: Thank you.

ABKOWITZ: I have a couple of questions I would like to ask you. If we could go to Slide 21 for just a moment. The second bullet says OCRWM will work with interested parties through a collaborative planning process before developing specific policies and procedures and making transportation decisions. And then on Slide 24 you say communication will be two-way, early and often, and there's some, certainly, intimations of that type of dialog throughout your presentation.

And yet, I contrast that with the information that you put out or the DOE put out and the Bureau of Land Management put out on what was essentially Christmas Eve and then right before New Years. And also I hear discussion from you about how the mode and corridor selection or decision may be made as early as two months from now. How do you respond to someone who will, you know, question whether or not DOE is prepared to walk the talk?

LANTHRUM: It's a challenge, but we have had significant input from the states and from the counties. The EIS process, there were comments that were made. There have been a number of comments made. Bob Halstead gave a presentation in NAREG last summer in which they came out
strongly in favor of a mostly rail scenario. There are a
number of comments on the record on both the mode and the
corridor options that are available to us. I don't think
there is a lot new to be gained, but we do have an open
process. We did give the letter to the State of Nevada on-
again, it was with the actual announcement, but we asked
them for any germane input on the process before we would
do an actual record of decision. We've not gotten any
additional feedback even though we've requested it.

Our primary access for dealing with the states is
through the state regional groups. We don't anticipate in
most cases having significant one-on-one discussions with
the states. And we do have our ongoing meetings with the
state regional groups. We expect them to bring their state
perspectives to those meetings. Those are open
discussions. There's lots of opportunity there.

We are meeting with the AUG members next week
here at the Yucca Mountain project.

Can we do more? There's always an opportunity to
do more. Have we gotten input? Yes, I believe we've
gotten input.

ABKOWITZ: Abkowitz, Board.

So then I guess my interpretation of that answer
is that the lowest common denominator from the standpoint
of DOE's interest in state and local input on
transportation planning issues are the state regional
associations, the four-state regional associations. Is
that correct?

LANTHRUM: That's our primary means of interacting
with the states.

ABKOWITZ: Okay, thank you. Priscilla?

NELSON: Nelson, Board.

I want to ask a question about how the internal
organization of the project is evolving now that the Office
of Science and Technology is funded. How would you expect
our office to interact with that office? Because I know
markedly that they had no projects that bore directly on
your activities, that I could see.

LANTHRUM: There are a number of projects--

NELSON: Will it be a force for you?

LANTHRUM: Yes, they are. We are funding a number of
projects that were recommended by them, but since it's
funding the transportation is providing, it's not on the
radar screen as a Science and Technology project. If it's
coming out of their funding pot, it's a Science and
Technology project. We're working on burnup credit for
high burnup fuels. That's a project that they
recommended that we might undertake in Transportation.
There are a number of things that they've come to us and
recommended, and we are funding a substantial number of
1 those through the laboratories this year.
2  NELSON: Nelson, Board.
3  What's your understanding if they came to you and
4 said, these things need to be done and you should do them?
5 Presumably there's something that could be done using
6 their terminology on a zero to three year vision sort of
7 window. But for their longer term vision, would you expect
8 to be able to go to them with longer term questions?
9  LANTHRUM: We've gotten a number of inputs from the
10 vendor industry where, on a number of occasions, they have
11 said that there is no new technology that's needed just to
12 do this work, that the capabilities exist currently. Just
13 find this and we will provide you with what you need. As
14 we have discussions with them about how to do it more
15 efficiently, there may be ways to push the design that
16 would still give you a package that would be able to be
17 certified by the NRC. There may be some long-range efforts
18 to increase the through-put per cask, and if the vendor
19 industry provides input that there would be some good R and
20 D projects with longer term payoff, we would be more than
21 happy to take that back to the Science and Technology group
22 and think they would be supportive.
23  NELSON: But you would expect those things to be
24 identified by the vendors?
25  LANTHRUM: They are the experts on the cask front.
There are other folks that we will be interfacing with that may have suggestions for the, just the basic transportation infrastructure. There aren't huge science problems that will allow us, that make a binary switch. Can you ship, can you not ship? So most of it is refinement rather than basic capability.

NELSON: If you're looking for problems, that's not what Bob is looking for. I mean I think he's looking to develop opportunity. So it's a different mindset.

LANTHRUM: It is.

NELSON: I was trying to get a feel for where you think that interface is because it sounds like it's young and may evolve a lot.

LANTHRUM: Pardon me?

NELSON: It's a young interface and it may--

LANTHRUM: Yes. Yes.

NELSON: --evolve a lot in terms of being able to think about longer term science issues that maybe vendors aren't thinking about right now.

LANTHRUM: Okay. Thanks.

ABKOWITZ: Abkowitz, Board. I wanted to follow up with one other question and comment, Gary.

Certainly, the plan you laid out is ambitious. And I was curious as to how many people you are staffing this activity with from DOE and what kind of contractor
LANTHRUM: The DOE staff sits at right--it's in flux right now. I do have the Institutional Program Manager in a slot that I have just gotten through the approval process. There's an announcement that's either just out or will be coming out. So I will be adding that person to the staff. And it's a fairly small federal organization. The primary support comes from contractor staff. Most of the significant technical capability and a significant amount of the work is going to be done by contractor staff. And, a lot of that contractor staff balloons and shrinks based on the individual projects that we're working on.

Now, when I came in the work for Transportation had not been projectized. And so the work scope that we have for 2004 was less well-defined as far as the specific resource requirements than it will be in 2005. What I've developed as far as project planning, we're going through the resource loading requirements for those project plans. That will be the basis for our 2005 budget request. That's in development now. But right now we've got about 12 federal staff, and again, the contractor staff balloons and shrinks based on what the requirements at any particular time are.

ABKOWITZ: Okay. Just as an observation, I think that it's going to be quite a challenge to sustain the number of
balls that you have begun to throw into the air. And the
Board will certainly be watching that with interest.

And, I would also point out that there is a very
similar slide that Jeff Williams presented to us I guess
about seven or eight months ago called Moving Towards 2010
Transportation Priorities, and on the right-hand column the
language in your slide today and the language he used is
verbatim except that his slide said FY 2005 and beyond.
And yours says FY 2006 and beyond. So in eight months
we've already slipped one year. And, I just wanted to make
that observation.

LANTHRUM: Well, I might respond to that by saying
that we've taken a different approach in some regards. At
one time the idea was that the cask procurements for
example would be done as a single contract that would be to
design, certify and fabricate.

Since there's a lot of decisions external to
Transportation Group on what the waste receipt requirements
and schedule is going to be, what the repository capability
is going to be, I made the decision that we need to phase
that so we do a conceptual design followed by a detailed
design and certification followed later by actual
fabrication procurement. And so there's a lot of things
that there's been a conscious decision to slip out or to
phase the approach to, and that does color the way the
What I hope to bring to the table is the fact that these schedules that we're developing are supported by a project schedule which has scope, has resource requirements and has, I think what's going to be a lot more defensible than what was provided in the past.

ABKOWITZ: Thank you.

Well, the day is long and the hour is late. And I want to apologize for such a lengthy program; yet, at the same time I want to recognize that the Board is extremely interested in this subject and plans to spend a lot of energy trying to understand and work with DOE and other stakeholders to get the proper issues identified and evaluated.

So I do want to thank all of your presenters today. I want to thank our public commenters, the audience and everyone else that has been involved in organizing this effort. And, also just remind folks that as a panel on waste management systems, we have several meetings that take place outside of the regular Board schedule, and we anticipate having several more of these meetings over the next several months and years, and you know, please try to keep apprised of when we're going to schedule those things. There's a lot of people that we were unable to hear from today that we would like to hear from in the future.
Thank you.

(Whereupon, at 7:30 p.m., the meeting was adjourned.)