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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BRIEFING BY LOW LEVEL WASTE FORUM (LLWF)

PUBLIC MEETING

Nuclear Regulatory Commission  
One White Flint North  
Rockville, Maryland  
Friday, March 8, 1996

The Commission met in open session, pursuant to notice, at 1:05 p.m., Shirley A. Jackson, Chairman, presiding.

COMMISSIONERS PRESENT:

SHIRLEY A. JACKSON, Chairman of the Commission  
KENNETH C. ROGERS, Commissioner  
GRETA J. DICUS, Commissioner

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STAFF PRESENT:

JOHN C. HOYLE, Secretary of the Commission  
KAREN D. CYR, General Counsel

LLW FORUM EXECUTIVE COMMITTEE MEMBERS PRESENT:

GREG LARSON, Convenor  
KATHRYN HAYNES, Alternate Convenor  
WILLIAM DORNSIFE  
LEE MATHEWS  
TERRY STRONG  
DON WOMELDORF

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PROCEEDINGS

CHAIRMAN JACKSON: Good afternoon, ladies and gentlemen. This afternoon the Commission would like to welcome representatives of the Low-Level Waste Forum. The Forum periodically briefs the Commission on the status of the Low-Level Waste Siting program in the U.S. The development and construction of low-level radioactive waste disposal sites is an integral part of the nuclear program in this country not only for reactors, but for materials licensees. The establishment in this country of adequate low-level radioactive waste disposal capacity that protects the public's health and safety should be a major priority.

Earlier this week I had the opportunity to tour the Barnwell disposal site in South Carolina, and in fact I also visited the final disposal repository for low-level waste in Sweden earlier. So I am particularly anxious to hear from the Low-Level Waste Forum on the status and progress that is being made in other states and compacts as well as any comments you might have on the effect of Barnwell on the process of developing low-level waste sites.

Commissioner Rogers, do you have anything?

COMMISSIONER ROGERS: No.

CHAIRMAN JACKSON: Commissioner Dicus?

COMMISSIONER DICUS: No.

CHAIRMAN JACKSON: Mr. Larson, you may proceed.

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MR. LARSON: Thank you, Chairman Jackson. It's a pleasure to be here today. We have had the opportunity to brief Commissioner Rogers in the past at visits to the NRC, but we haven't had that same opportunity for you or for our

former colleague Greta. It's a pleasure to be here. We are glad to be here.

Just a few words about the Forum before we introduce ourselves. The Low-Level Waste Forum is an association of representatives of compacts and states. Compact representatives are appointed by their compact commissions and the state representatives by their governors.

Our primary purpose is to implement the federal legislation that was passed in 1980 and amended in 1985, and also to promote the objectives of interstate compacts in developing new disposal capacity.

The organization generally operates on consensus. We represent individually states and compacts and we have our own individual views on a number of issues. Occasionally we have issues that we do join together on and establish a common position. You may hear today in the discussion different positions offered by the representatives here.

Why don't we just introduce ourselves. Don.

MR. WOMeldorf: I'm Don Womeldorf. I'm the

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executive director of the Southwestern Low-Level Waste Commission.

MR. DORNSIFE: I'm Bill Dornsife, director of the Pennsylvania Bureau of Radiation Protection. I represent Pennsylvania as host state for the Appalachian Compact. Under our legislation our agency has both regulatory authority and also contract oversight authority. We have the dubious distinction of trying to become an Agreement State to take over that.

CHAIRMAN JACKSON: That's a high honor.

MR. DORNSIFE: Yes.

MS. HAYNES: I'm Kathryn Haynes. I'm executive director of the Southeast Compact Commission.

MR. LARSON: Gregg Larson. I'm executive director of the Midwest Compact Commission.

MR. MATHEWS: I'm Lee Mathews, general counsel of the Texas Low-Level Radioactive Waste Disposal Authority.

MR. STRONG: I'm Terry Strong. I'm director of Washington's radiation protection program and I am the chairman of the Northwest Compact.

MR. LARSON: One of the things that the Forum does is serve as a focal point for exchanging views and information between federal agencies and people here in Washington and our states and compacts. Of course that's the purpose of the briefing this afternoon.

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We would like to start off by highlighting some items that are of particular interest to us and the focus of a lot of national attention right now. The first is the status of the siting process out in the state of California, which is the host state for the Southwestern Compact Commission. Don is the representative of the compact commission and will brief you in more detail about the status of that site development effort.

MR. WOMeldorf: Thank you. Yes, I am representing the Southwestern Compact Commission, not the state of California. I want to make sure that distinction is clear.

California issued a license in 1993 which was immediately challenged in the courts. Those challenges have now been played out to the level of the California Supreme Court, and all along the way the California license activity and decision have been supported. So that is no longer an issue.

The critical path now is the transfer of the property from federal to state ownership. As you may know, the Department of Interior is saying that if this transfer takes place now there won't be any public safeguards, and of course our commission's view is that this isn't true at all, because California is an Agreement State; it's under NRC's oversight as an Agreement State; and those safeguards are going to be built in there as well as California's own

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regulatory activities.

It is important, I think, to note that all of the lawsuits and all of the studies so far have indeed supported the California licensing decision. It has been one thing after another, and all along it has been yes-yes-yes, the site is okay, the technology is okay, the regulatory scheme is okay. We don't feel that one more study, as the Department of Interior currently is proposing, is going to change anything. We think it's only a delay.

So our commission's suggestion is to follow the NAS recommendation, transfer the land now, then make sure that things are going to be safe through additional studies and monitoring as appropriate.

Along those lines, you have in your packet a communication from the Forum to the Department of Interior transmitting a resolution of the Forum which was passed last month that goes along pretty much those same lines.

That is all I will say at this point. If you have any questions, of course, I will respond to those.

CHAIRMAN JACKSON: Commissioner Rogers.

COMMISSIONER ROGERS: No.

COMMISSIONER DICUS: No.

MR. LARSON: Chairman Jackson, one thing that we would like to ask the Commission is whether or not there might be some role for the Commission to play in moving the

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process forward in California. I guess in the past we have had discussions with the NRC about dual regulation and some of the problems that are entailed in dual regulation between EPA and the NRC. We find ourselves in a position now where we seem to be moving in a triangular regulation where have got another regulatory agency. In this case it seems to be the Department of Interior, which doesn't really have any charge in this area.

In looking over your confirmation statement, you seem to express an interest and concern about storage of low-level radioactive waste. One of the issues that worries us about instances like the California situation is that if California is not successful in developing its disposal facility, we are going to have generators eventually storing waste again. We think it's an important public health and safety issue, and any support that the NRC could give regarding the transfer of that land to California would be very much appreciated.

CHAIRMAN JACKSON: Since in fact it's an issue between a particular branch of the federal government and the state, we would not get involved in a direct way. I understand your concerns. From the general perspective I am sympathetic. I will make sure that we take that into consideration.

MR. LARSON: Thank you.

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The second status report we would like to give on a siting effort that has advanced fairly far along is the siting effort in the state of Texas where they are now going through licensing proceedings. They also have a new compact that has been formed, and that is before Congress now for consent. Lee is here representing the state of Texas.

MR. MATHEWS: Thank you. The Texas-Maine-Vermont Compact for low-level waste disposal is currently pending in Congress. House and Senate ratification bills have been passed out of the respective committees and are awaiting floor action. We anticipate that action in the House will occur first, and we understand that that could occur any time. It could happen this month; it could happen next year. But we are hopeful it will be sooner rather than later.

Under the compact arrangement, which is probably unique among the compacts, Texas will be the permanent host state for compact waste. A proposed site has already been identified in west Texas. Under the compact arrangement, Maine and Vermont will be able to send limited amounts of waste to Texas and Texas will receive \$50 million in total from the other two states for that privilege.

Equally important, we think, is the fact that the host county will receive \$5 million to do with as they wish, no strings attached.

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The review of our license application by the state regulatory agency is, I am happy to report, complete. An environmental assessment will be issued by that agency in three weeks. This will trigger a round of adjudicative hearings, which we hope will be complete by this time next year. So always being the optimist, I believe we could have a site operating by early 1998 under the current arrangements.

That's where we are at the present.

CHAIRMAN JACKSON: Thank you.

MR. LARSON: We have talked about two compacts, one compact that is in existence and one compact that is pending, but two states that have submitted license applications in the state of California have been granted

their application. We also have disposal sites that are currently operating now, one of which you visited this week, Barnwell, and two others, one in Utah and one in the state of Washington. The Utah site and the state of Washington site are both in the Northwest Compact. Terry Strong is here today and can give you a status report on what is happening at those two sites.

MR. STRONG: Washington had the first compact. It was relatively easy for us to do that, for the states adjacent to us to band together around us. Our site also has no provision for anybody else in the compact to have to

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have a site. It was envisioned that ours would go on.

The provisions of the federal 1985 Amendments Act allowed a compact once it was ratified and secure to close its borders to receipt of waste from out of the region, and we have done that. In furtherance, we believe, of the intent of the federal Act, we also, after negotiation, entered into a contract with the Rocky Mountain Compact. So there are 11 western states that are in the region, all sending their waste to Hanford.

When we began this in 1980 and the federal acts were passed, no one envisioned having two sites in one region. That has been an interesting issue for us to deal with.

The niche that is filled by the Envirocare site in Utah has been an important one. Their original intent, and they continue to follow through on this, was to take large quantities of slightly contaminated material. It is this kind of material that most of the other compact regions as they look at the kinds of waste and the volumes that they would be faced with are not prepared to handle, and the niche that is filled by Envirocare is to handle just exactly that kind of material. And we don't want it at the Richland site either. So that part of the relationship goes very well. It is handling all of the material that is generated in the Northwest Compact region, and it provides an escape

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valve in the interim for all the other compacts, and I think it works very well.

MR. LARSON: Kathryn Visocki is here from the Southeast Compact and can tell you a little bit more about the status of Barnwell.

MS. HAYNES: Old habits die hard. My name is Kathryn Haynes now.

[Laughter.]

CHAIRMAN JACKSON: We got it because we see your name in front of you.

MS. HAYNES: Which is funny, because I was planning anyway to start by telling you that old habits die hard. I've been with the Southeast Compact for quite a while and I spent 11 years talking about the Barnwell facility as our regional facility. Of course now I've had to break that habit. So when I speak of the Barnwell facility now, it is not within our compact any longer, as you know.

The measures that were taken last summer to withdraw South Carolina from the Southeast Compact and to make the Barnwell facility available to the whole nation except for North Carolina, those measures were attached to a budget bill in South Carolina. Therefore, there has been a lawsuit raised by a South Carolina environmental group questioning the validity of that act. It is not known at

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this point what time the court will consider that question, but there is some question as to whether the act will be upheld and whether the same measures will have to be revisited in the South Carolina General Assembly.

That is just one of the areas in which we feel the access to the Barnwell facility is tenuous. There is a great deal of uncertainty. Not just because of the lawsuit, but also because of the fact that the general assembly can revisit that policy at any time. We have seen it happen before and we know it can happen again. There was supposed to be between seven to ten years of actual physical capacity for waste, but we all know that the technical capacity is not necessarily the issue.

I would like to make it clear that the Southeast Compact nonetheless does take their responsibility seriously in providing for access to disposal for its generators in the Southeast. North Carolina continues to be our selected host state and they continue to work, reviewing the license application and developing a facility.

COMMISSIONER ROGERS: What is the basis for the seven to ten years of capacity of Barnwell? What is that based on?

MS. HAYNES: I'm not sure I'm qualified to address that. It was an estimate that has been presented to us by South Carolina.

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COMMISSIONER ROGERS: It's just past history that what they have been getting up to now is continued in the future at seven to ten years? What would be the basis for that?

MS. HAYNES: I'm really not sure I can answer that. All I know is that is what South Carolina tells us, that they have computed seven to ten years.

CHAIRMAN JACKSON: Based on my visit there recently, Commissioner, there is a rate of generation assumption having to do with recent history. It does not specifically take account of any premature closures, et cetera, of nuclear facilities, but it also does take account of new compaction technologies that exist. That is the kind of perspective that was offered to me recently.

COMMISSIONER ROGERS: Thank you.

MR. DORNSIFE: In the Appalachian Compact, as I mentioned, Pennsylvania is the host state. We had been pursuing under our laws and regulations a site screening process where our contractor would be identifying three sites, and those sites would then be narrowed down to one after site characterization.

Because of the controversy that we have been seeing and some other issues, we have recently added another step to the process, and it's called the community partnering process. It's an attempt to find three volunteer

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communities. We have just recently completed the planning process with that new step and started implementing that process. I am pleased to say that so far the reaction has been pretty positive. It's amazing when you take pressure off elected officials at the local level in terms of forcing a site on somebody how the lines of communications are much easier to deal with.

So far we are really pleased with that new process. However, of course, it will add another two or three years to the time when we expect to have a site on line. So now we are talking probably the year 2002 or 2003 until we would be ready to accept waste.

I just want to also add that particularly with the Texas and the California issue, those two issues kind of send a chilling message to the rest of us. They are trying to move ahead with siting. Congress and the federal government had told us, states, you're responsible for this, go forth and propagate, form compacts and develop new facilities, and now two states have done that and the federal government appears to be holding up progress. So it certainly doesn't encourage the rest of us that are pursuing the process.

MR. LARSON: I represent the Midwest Compact. Our host state is the state of Ohio. Ohio just recently enacted enabling legislation, back in June of last year, that will

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allow their state to go forward and develop a disposal facility. So we are really at the start of the siting process in our compact commission.

We have also put at your place a report entitled "Summary Report." It has a map on the back of the report that shows you the breakdown of states within the compacts and touches on where the siting efforts are in the other states that aren't in compacts or the other compacts that aren't represented here today. Unless you have any questions about those, we won't discuss them.

Any other questions on where we stand as far as our site development efforts?

COMMISSIONER DICUS: Just a quick question to Bill. Several of the host states and the compacts have had various sorts of processes to involve communities in the selection process, and you think yours is going to work well. What makes it unique from some of these other ones where some have worked and some have not?

MR. DORNSIFE: As you are aware, we probably had one of the more aggressive public involvement programs in our Pennsylvania program to begin with. Quite frankly, when you are talking about siting at a statewide level, it is very difficult to get the public interested in the issue. It is not until you actually get down to picking sites that

people start discussing the issue at the local level, and by

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then it is probably too late, because people have gotten biases. So we are thinking going to the volunteer process with a grass roots effort allows that communication to occur before a site even gets considered. Then the community has the right to decide; they are empowered to make the decision of whether they want to proceed.

COMMISSIONER DICUS: If they say yes, we want to proceed, do they have a point in time that that decision is irreversible?

MR. DORNSIFE: The way we envision our process, there are four steps. The first is just information and there is formal interest. Then there is a negotiation step. At the end of that negotiation step there is some sort of a formal agreement entered into. It can't be totally irrevocable, but there will be terms in there that will make it more binding and more difficult to get out of, but that is after a community has expressed the majority interest in pursuing it and being a host.

COMMISSIONER ROGERS: What incentives are there in your program for a community to want to advance itself as a disposal site?

MR. DORNSIFE: We have a number of incentives that were already built into the legislation. We had gone through a very detailed public involvement process that tried to identify the concerns. They range from providing

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independent monitoring.

For example, we have local inspectors that have the authority to shut down a facility if they see a violation of health and safety. We have various kinds of monitoring offered free to the citizens to make sure they have not been affected. There are property guarantees. Obviously local monitoring. Transportation. We even look at affected municipalities and give them benefits. In addition, both the law and the contract requires our contractor to negotiate additional benefits, whatever the community wants. So we are probably talking several million dollars worth of benefits at the very least. Obviously not all monetarily related, but certainly some of it is monetarily related.

CHAIRMAN JACKSON: I had a question about the Southeast Compact. The focus really is still on Barnwell in the Southeast Compact. Is that correct?

MS. HAYNES: That is not correct. I was asked to take that part of the program today. Since I traditionally have spoken about Barnwell, they asked me to speak about it. Barnwell is definitely not the focus of our activities. I'm glad you asked the question. It gives me an opportunity to make the point. What I was trying to point out to you is that our focus is to develop capacity for our generators in the Southeast.

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Before South Carolina took those actions we had already identified North Carolina as the host state. The application for a license had already been submitted and the process was already started to review that application. That process was not in the least bit slowed up or changed in any way. It was made very clear to North Carolina that nothing had changed; they were still the host state; and they still had an obligation. I don't want to imply that North Carolina hasn't taken that seriously, because they have. They continue to work to get the application reviewed and the license issued.

In terms of our relationship with South Carolina, however, I think there have been some assumptions made or misunderstandings in the general industry and community that there would be harsh feelings between the state of South Carolina and the Southeast Compact Commission. At least from my perception I have not seen that. We maintain a good working relationship. The state of South Carolina needed to do what they needed to do. Our commission needed to do what it needed to do. We all have respected that and continue to keep a good relationship with the state.

CHAIRMAN JACKSON: Thank you. Let me go back to your point when you were talking about California. What is it that you think the NRC can profitably do with respect to the problems with California and even Texas?

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MR. LARSON: I think one thing might be to stress what the implications are if we fail in our efforts to develop disposal capacity. We have three sites operating.

The one in Washington works very well for their compact, and the Rocky Mountain Compact, 11 states, but those are the only 11 states that are being served by that compact. The Envirocare facility takes only a limited part of our waste stream, high volume, low activity waste.

And Barnwell, we recognize, is not a long-term solution to our disposal needs because of its limited capacity.

So in the end we still are all very much interested and concerned about the need to develop new disposal capacity. We don't want to return to the situation that we had a year ago when we had no access to Barnwell. In my compact region we had 170-some generators storing waste on site. The same was true for the other states and compacts that also lost access to Barnwell.

California is very important as far as our success. They are the first state to have a new facility that is licensed and ready to bring on line. We have all been waiting for that to happen. To see that now in some trouble because, of all things, the federal government is not being supportive of the land transfer and allowing development of that site to go forward is troubling to us,

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because we took on this responsibility, the federal government gave it to us, and we think we have gone forward in good faith to do that.

I'm not sure if that is specific enough an answer for you, Chairman Jackson.

MR. DORNSIFE: If I could add. It's somewhat troubling to me becoming an Agreement State to see an Agreement State having gone through a process of approving issues and now some other entity that clearly does not have radiological health and safety oversight looking at radiological health and safety issues. It makes you wonder who is really responsible for these issues.

MS. HAYNES: I think it's helpful to think of this in terms of what is going on in the legislatures in the states where a facility is being developed. It is very difficult for state legislatures -- I'll use North Carolina as an example -- to understand why their state has to go through all this trouble -- and it is a lot of trouble -- to develop one of these facilities and take all the political flak for it if Congress might change their mind at any moment. I think that's the perception in many host states, that Congress is not standing behind their own policy. They told us to develop these sites and now they are not assisting California and they are not assisting Texas. I think that is the very simplified perception of many people

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in the host states. They are being given a tough job and they are not given any support and maybe we shouldn't do this; maybe we should just wait and see, because it looks like Congress will change its mind or the feds are changing their mind. That's a very common attitude, I think, in many of the host states.

MR. LARSON: I think our reaction would be very different if it was the NRC that was raising the concerns about the site out in California, but to have health and safety concerns related to radiation being raised by the Department of Interior is just inconsistent with what the federal government has said, which is that the Nuclear Regulatory Commission is the agency that is assigned responsibility at the federal level for regulation of radioactive material. This is where the responsibility lies, not in the Department of Interior.

Just to move on, a second topic that we wanted to talk about this afternoon was the future status of the low-level radioactive waste program within the Commission.

CHAIRMAN JACKSON: That was going to be my question.

MR. LARSON: We anticipated it.

I indicated earlier that generally the Forum operates on the basis of consensus. We all sometimes have different opinions on different issues, but this was one

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that we had a unified opinion on. We did send you a letter that indicated our concern with any reduction in efforts in the low-level radioactive waste program that would affect the interaction that we have had historically between your agency and the Low-Level Waste Forum.

We have been very fortunate to have Nuclear Regulatory Commission staff attend our meetings. We have been fortunate to have Commissioners, including two of the

past chairs of the Commission, come to our Forum meetings. We believe that if there is an interest in cost reduction that one of the best ways that you can minimize costs is to continue to have a good strong relationship with us, because what it allows is interaction with one organization and all of us rather than to have to deal with all of us separately. So we would encourage continued support of the Commission of participation in our meetings and other activities that the Forum is involved in.

In addition to that letter that we sent to the Commission, I think individually many states and compacts did communicate with the Commission. Without speaking for them, I did happen to have an opportunity this morning to look through the letters again. I think for the most part everyone was in agreement that the program should not be phased out, and I think most of the comments were to the effect that option 2, which was a reduction in staffing, was

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perhaps necessary, but I think most states expressed some concern over the size of the reduction and felt that the size that had been recommended might impair some of the good things that the Commission staff has done in this area.

CHAIRMAN JACKSON: Have you thought about what kinds of interaction should have the greatest focus given that at least at this point most of the probable sites are in Agreement States?

MR. LARSON: I think it is true, Chairman Jackson, that most of the sites are in Agreement States. We do have three states that, if sites are eventually selected and license applications are submitted, will be coming to you rather than to their state agencies. That is Michigan, Connecticut and New Jersey. I know in their letters they did raise that concern, that by phasing out or reducing significantly the staffing of the low-level waste program that it would perhaps prevent timely licensing of facilities in those three states.

I had an opportunity also to look at the Advisory Committee on Nuclear Waste letter, and I think they did a very good job of highlighting the areas where we have received a significant amount of support from the program and we have benefited from the activities of the Commission and the staff. I think they also did indicate some areas where they thought some reductions might not affect the

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overall program.

I think all of us are concerned that the kind of reduction that was talked about in the options paper might be such that it would eliminate what critical mass is necessary to keep some sort of a program going.

MR. DORNSIFE: Maybe I could offer the perspective of someone becoming an Agreement State and what kind of needs we might have. I think primarily our particular needs would be for assistance in development of guidance. Not necessarily draft guidance, but review and comment on guidance that we would be developing.

Some necessary research, particularly on engineered facilities. That is somewhat lacking. And long-term performance, waste form performance. That kind of research would be particularly helpful.

Also, obviously some presence to provide for updating of regulations as times change, to assist the Agreement States in that process.

Those are the three areas that I think would be most useful from our standpoint.

CHAIRMAN JACKSON: Have you given any thought to how these things should be paid for?

MR. DORNSIFE: I will be bold to say that obviously the nuclear power plants are a very large contributor to the problem and they need the low-level waste

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disposal as much as anyone. They obviously will continue regardless of how we proceed here with the agreement program to continue to be NRC licensees.

MR. LARSON: Just to give you another example of how an issue can arise that is unanticipated. I think this was mentioned in that alternatives paper. In trying to look ahead and determine what are the needs going to be in the future, it is hard to say, but historically there have been things that arose that nobody could predict that required staff time and attention.

Just an example of something recent has been a concept that has been developed called assured storage, which is another type of approach that has been suggested to

developing disposal capacity in a way where it is not called disposal; it's called storage. I think there are many members of our organization and states and compacts that have significant reservations about that type of an approach to developing some way of safely managing this waste. The NRC had an opportunity to weigh in on that in a way that I think was consistent with the views that many of us hold on that.

There are other issues like that that are going to arise in the future that are just very unpredictable. Without being able to look to the agency that has primary responsibility for radioactive materials and not have the

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ability to consult with that agency when issues like that do arise is troubling to us.

Another example of an area where the Nuclear Regulatory Commission did play a role in assisting our efforts was in California and the review that was done by the National Academy of Sciences. Don is very familiar with that and might want to say a few words about that.

MR. WOMELDORF: A couple of years ago some of the project opponents identified what was seen as a misrepresentation in the license application on the amount of plutonium slated to go to Ward Valley and raised that issue, and it came up again at the National Academy of Sciences review recently.

We were pleased to see the quick response from NRC staff such as Jim Kennedy, Andy Campbell and others to help identify why those numbers looked the way they did. It showed that the California decision again was supported, that the amount of plutonium that was going to go to Ward Valley was exceedingly small, very low, and that issue, I think, has pretty well been put to bed. Others are going to pop up, and California may come back to you with other requests for information in the future, but that one seems to be quiet, at least for the time being.

MR. LARSON: Another area that has been of continuing concern to us has been dual regulation of

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radioactive materials. There are two areas that we have been focusing on recently. One is the NESHAPS, the national emission standards for hazardous air pollutants, and the other has been mixed waste. Bill is going to talk a little bit about the NESHAPS program.

MR. DORNSIFE: Some of the states that are in the process of licensing facilities have had some problems with the way the NESHAPS have been handled. The dual pool regulation involved there in terms of recognizing it is a legitimate radiological health and safety issue, and having two different agencies responsible for it creates some problems.

We are obviously very supportive of the proposal to deal with that and the way that proposed regulations have come out.

There is absolutely no reason in our mind why this shouldn't be dealt with the same as all the other radiological health and safety issues that come up, including the public involvement and all the other things that the states are probably in a better position to deal with.

The other concern we have had about NESHAPS is because it is a separate agency it tends to get tied up in some of these other issues that are outside of the agreement program, like threatened and endangered species and some of

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the other federal actions that are required.

MR. LARSON: Next is the other issue that is affected by dual regulation. Lee is going to comment briefly on that.

MR. MATHEWS: Members of the Forum and others have urged for a number of years that DOE consider accepting or investigating the acceptance at its sites of commercial mixed waste for treatment and disposal. There is not a whole lot of commercial mixed waste out there. It makes it difficult and expensive for the states to provide separate disposal modules for this material.

In addition, we feel like it subjects the states to additional permitting. We would have to get hazardous waste licenses and permits in addition to radioactive waste licenses. Most of the states therefore have not made any concrete plans for accepting mixed waste at their disposal facilities.

has put this item on their agenda for review and have approached DOE about conducting a pilot project to determine the feasibility of accepting certain mixed waste streams at certain of their disposal facilities. DOE seems favorably disposed to consider that possibility, and we are encouraged that this should go forward and be a fruitful area of cooperation and investigation with DOE.

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In addition, NRC by letter dated February 9 to DOE, has encouraged DOE in this initiative regarding the pilot project. We are certainly happy to see some progress made along this line. It's worrisome to the states, and we feel like DOE probably can provide aid in this area, and we will be looking forward to the joint effort between the states, DOE and NRC.

MR. LARSON: Chairman Jackson, I think we have covered the subject areas that we wanted to touch on during the course of the briefing. I don't know if there are any other areas that you or the Commissioners might want to ask us about.

CHAIRMAN JACKSON: Commissioner Rogers.

COMMISSIONER ROGERS: Not really a different area. Since we are very much grappling with this question of what we should be doing in the low-level waste area, I think it would be perhaps helpful if we could have even a little bit more feedback from you folks on what you see as the kind of minimal strengths that NRC might have, in your view. I think that could be helpful to us in trying to make some decisions in this area.

You have touched on the two major efforts in sort of general ways, namely, helping you with regulatory activities and then helping you with technical activities via research programs. I think it would be helpful if

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perhaps we could have a little more focus from you, and whether you all agree on that, I don't know. It's helpful to us to know that you think that we ought to maintain a low-level waste program. That's kind of a starting point for us to focus on low-level waste, but it doesn't really help us too much when we have to make decisions as to exactly how we are going to do this and exactly what level of efforts might be appropriate.

For example, you referred to the ACNW letter to the Commission on this subject. It occurred to me that perhaps we could help to maintain some kind of a national technical strength by networking technical experts in the individual states program together with our own technical experts so that we might not necessarily be the sole repository of technical expertise in all relevant areas to the low-level waste disposal programs, let's say, but nevertheless we could contribute and help to act as a coordinating resource for technical expertise in this area.

That way we might be able to play an important role but not necessarily have all of the expertise here, because I'm sure within each of your organizations you have technical expertise. You probably don't have all that you want, however. You probably don't have as many people as you would like to cover all of the bases, but you may have some really first rate people that are real technical

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experts on some key areas of the low-level waste disposal, either the engineered barriers area, or hydrological questions. I won't try to make a list here, but I think you get the idea.

I think it would be helpful to us if you could indicate what your needs are and how we might be able to work together with you in some way to see that those needs are met without our necessarily being the only resource that is available.

Can we have some response on that? I don't expect it to be definitive. You may want to think about it some more, but what is your response to perhaps enlarging our mutual supportive roles while at the same time NRC is responding to its need to contract its FTEs and expenditures?

MR. DORNSIFE: I personally think your suggesting of being a repository for resources is probably not a bad idea. In addition, I would suggest maybe considering other parts to that resource. For example, USGS; the NIST for concrete performance. There are a number of resources that you could muster to help us. I think that's a good suggestion, something I would like to think more about.

COMMISSIONER ROGERS: I'm sure we would love to be

able to have everything right here, but that isn't going to be realistic in the future. The question is, if we are not

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going to have everything, what is something that we might have that would still be very important and very useful in the research area?

If you look in the regulatory area, I don't think you can look elsewhere. You've pointed out and the ACNW has pointed out that we can play a very useful role there in assisting with regulatory questions at the state level. Not necessarily dictating them, but being a resource to look at the development of guidance. You've mentioned that. But also certain aspects of regulations. Some of those considerations are very local, very state-oriented things that have to be in your local and state statutes, but we can be helpful in certain parts of that, I would think.

I wonder if there is any way that you could give us something that is a little more focused than what we have just talked about today. Is there any mechanism that you can think of that would allow you to share your own thoughts and then get them to us?

MR. STRONG: I think we do have a lot of expertise in the state of Washington, and on a collaborative basis I don't see why we shouldn't be working even more closely together. A specific example of that, not in the low-level waste area, but earlier this week your staff and Agreement State staffs met in Vancouver, Washington, on three issues. It was not a training workshop put on by your staff. It was

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a collaborative effort, and I don't see why we shouldn't do much more of that specifically in this area. It was an outstanding opportunity. I think we ought to capitalize on it.

COMMISSIONER ROGERS: What strengths do you feel you have in the area of performance assessment? This is something that we have been working on here quite hard for the last few years, particularly in the low-level waste area, that I think has really started to look very good, very professional and complete. What do you folks have in your own organization with respect to performance assessment capabilities?

MR. DORNSIFE: I think from our standpoint we can certainly identify the key issues that need to be resolved. For example, one of the issues that I think is in dire need of more research is what is the long-term performance of a concrete waste form. That would be very handy to have, because you can get chemical absorption for ten to hundreds of thousands of years without maintaining physical stability.

We have been working very closely with the folks at INEL, the DOE Low-Level Waste Technical Assistance program. We have access to a number of computer programs and experts out there to help us develop some of the early guidance documents and things that we need for performance

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assessment. So we have been using other resources. We do have some expertise on our staff, certainly, but that is one of the areas we primarily look to the outside for expertise.

COMMISSIONER ROGERS: Do you within your organization share this? In other words, do you as representatives of individual compacts encourage your technical people to exchange information among each other?

MR. LARSON: We do, Commissioner Rogers. There is another organization that also operates along the same lines that we do called the Technical Coordinating Committee, which consists of representatives of host states. In once sense I am here representing the Midwest Compact, but the people who are really doing the siting work are people from the state of Ohio, and they are probably the more appropriate people to respond to your questions about performance assessment or other specific activities that they might be engaged in that interface with DOE. It's probably true with Kathryn as well.

That is certainly something that we can also take back to our organization and ask the states who are doing the siting work like Bill and other state officials the question that you have raised.

I just want to stress that in one sense some of that activity, perhaps not so much solely technical, is going on now with our organization and with the NRC. We are

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fortunate to have Jim Kennedy come to our Forum meetings. He is there to answer questions that can cover a gamut of

things, from performance assessment to the latest position that the Nuclear Regulatory Commission has on import and export of low-level radioactive waste. He's in the hot seat quite often during our meetings, because we have a lot of questions about what the agency that is establishing policies regarding radioactive materials is saying about different issues. So that kind of interaction is going on.

MR. DORNSIFE: One of the concerns that we run into, though, is host states essentially have two responsibilities. One is regulatory and one is site development. Obviously the concerns are somewhat different between the two. The TCC, the Technical Coordinating Committee, is more of a site development effort. NRC had been sponsoring meetings of the state regulators to talk about those issues, and recently the Conference of Radiation Control Program Directors has gotten a grant from DOE to pick up a continuing workshop effort to deal with those regulatory issues and share information about regulatory issues. So whatever support you could provide for the regulatory effort would be very much appreciated. That's really where the regulatory issues are discussed.

CHAIRMAN JACKSON: Commissioner Dicus.

COMMISSIONER DICUS: One quick thing on the

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research effort, and I think it goes to Commissioner Rogers' question about your mechanism for gathering information and then putting that information together and getting it to us. You mentioned one thing in particular that would be helpful, that perhaps the individual states cannot do. For example, concrete's ability to perform over time. Are there other particular projects that you think would be worthy of the expenditure of time and effort on the agency's part that will be helpful to you? If you had a way to bring those to us, it would be helpful.

MR. DORNSIFE: Hopefully that regulatory group that the conference is sponsoring is the appropriate collection point for those ideas.

MR. LARSON: Bill's example is a good one insofar as it is the type of activity that doesn't just benefit his compact because it may be looking at a concrete container or a concrete bulk facility, but for all of our host states that are looking at that kind of technology. That kind of assistance from the NRC benefits a broad number of siting efforts.

MR. DORNSIFE: Another area that has been of concern to us that NRC has authority over is export and import of waste. Obviously we get a lot of criticism and concern expressed by the public about the possibility of waste being imported and exported. We know there are

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regulations in place now. We certainly would like to work with you on those and make sure that what is in those regulations is enforced.

MR. LARSON: If there aren't any other questions, I guess we are at the end of --

CHAIRMAN JACKSON: End of your rope?

[Laughter.]

COMMISSIONER DICUS: One more. You used a term a while ago. I haven't been away from the low-level waste arena too long, but apparently this term slipped in on me in the meantime. This assured storage, what is that issue or term? I'm not familiar with it.

MR. LARSON: Assured storage is an alternative that has been put forward, I think in the belief that it might result in an easier siting and development of disposal facilities. It is basically developing a facility, not calling it a disposal facility, but calling it a storage facility, and going forward with that development without the type of rigorous regulatory compliance and performance assessment that you would go through for a 10 CFR 61 type of facility. I think the belief among some people is that that is easier to do because the public may feel more comfortable with the word "storage" than "disposal."

Speaking for myself, I don't find that to be true. I think more than anything else, when we get asked questions

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by citizens about what it is that we are proposing to develop in the way of a disposal facility, they are looking for certainty in our answers, and to be telling them that we are going to develop a storage facility, the very next question is going to be, for how long, what's going to happen at the end of the storage period?

My belief is that the approach that was taken by

the NRC back when it developed 10 CFR 61 is a correct approach, to call it disposal. That's what we intend to do and to subject it to the kinds of rigorous analysis that the public expects. There are some members of the public who don't think 10 CFR 61 is sufficient. To go forward and develop the kinds of facilities we are doing and to call it storage and not have it subject to those requirements is not the proper way to go. That's the position that I think staff at the NRC have communicated.

MR. DORNSIFE: I think from a regulatory standpoint we see the same kinds of concerns for this long-term storage as we see for disposal. It's materials performance concerns; it's assurance of eventual disposal. If you go beyond 100 years, what do you do about long-term care, intruder protection? Those same issues still occur with this kind of a concept. So we're not sure from a regulatory standpoint it is really a whole lot easier to deal with.

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CHAIRMAN JACKSON: Those are the kinds of issues that exist in the high level waste area in spades.

MS. HAYNES: This is a concept, though, that has been given quite a bit of attention at the state level. So you probably will be hearing it frequently in the future. I know in North Carolina it has come up in several legislative hearings. The state licensing agency has received a number of questions about how they would go about licensing such a facility. So I would expect that you would be getting those kinds of questions soon as well.

MR. LARSON: There are some states that have expressed further interest in it. They want to know more about the alternative, what are the cost implications of it. So I think there will continue to be some interest in the alternative.

MR. DORNSIFE: Just as another issue, obviously we are very much interested in the rebaselining effort that is ongoing in the agency, and where it affects the low-level waste program and Agreement State programs that are integral to our efforts, we would like to be involved wherever we can in terms of helping you with that effort.

CHAIRMAN JACKSON: You will be.

MS. HAYNES: Something that has been very helpful to the Low-Level Waste Forum and its members is having regular attendance at our meetings by your staff members and

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occasionally by an actual Commissioner. In the past we have had attendance from a Commissioner. I think it has happened two times. The last two chairs of the Commission have attended our Forum meetings.

We purposely schedule our meetings so that at least one of them is in the Washington area to make that a little bit more convenient for you. As I said, even if we are outside the region, we normally have a member of your staff to attend. Jim Kennedy and sometimes others. That is enormously helpful for us. It is very efficient and effective. It saves all of us having to come back and forth to Washington all the time, and for your staff, I'm sure, to travel all over the country. It helps us to know what issues are on your minds before you make decisions, and likewise I'm sure you are kept informed on the issues that are important to us.

We would like to ask you to continue to support your staff in attending our meetings and for you to attend as well when you can. Our next meeting in the Washington area is May 29 through 31, and that's in Annapolis.

CHAIRMAN JACKSON: Well, you have your sister here. In addition, I respond to invitations.

MS. HAYNES: Thank you.

MR. LARSON: I think with that we are done. I would like to do one other thing. It was an oversight on

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our part not to recognize the efforts of Andy Campbell on your staff, who was very helpful to us in working through the question of the amount of plutonium going into the Ward Valley facility and assisting the NAS panel with that. We very much appreciated his help.

CHAIRMAN JACKSON: Thank you.

MR. LARSON: With that, thank you very much for your time this afternoon.

CHAIRMAN JACKSON: I would like to thank all of you representing the Low-Level Waste Forum for what I thought was a really informative and useful briefing. Obviously this is an issue that has to be addressed, given

some of the things you pointed out, in a thorough but timely manner. It looks like there is some progress from what you are telling us, but as I always say, there is always room for improvement. You are clearly working to do your part in trying to move the siting process along.

As I try to capture what you have said and what my fellow Commissioners have said, it is clear that going forward appropriate partnering of resources between what is available in the states and here merits serious consideration in addition to any specific technical assistance that NRC can uniquely provide. We have to consider that as part of our ongoing rebaselining assessments, et cetera.

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As Commissioner Rogers has said, and you have identified a number of things here, some focused input that is more comprehensive even than what you have already outlined on these issues from you would be helpful to us and especially helpful to me since I'm a visual learner.

Again, I would like to thank all of you for an excellent briefing. Unless my fellow Commissioners have any additional comments, we are adjourned.

[Whereupon, at 2:10 p.m., the meeting was adjourned.]