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UNITED STATES NUCLEAR REGULATORY COMMISSION  
BRIEFING ON URANIUM ENRICHMENT, PART 1

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THURSDAY

February 5, 2009

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The Commission convened at 9:30 a.m., the Honorable Dale E. Klein, Chairman  
presiding.

NUCLEAR REGULATORY COMMISSION

DALE E. KLEIN, CHAIRMAN

GREGORY B. JACZKO, COMMISSIONER

PETER B. LYONS, COMMISSIONER

KRISTINE L. SVINICKI, COMMISSIONER

1 PANEL 1: INDUSTRY REPRESENTATIVES

2 GREGORY OD SMITH, Louisiana Energy Services (LES)

3 PHILIP G. SEWELL, U.S Enrichment Corporation (USEC), American

4 Centrifuge Plant

5 TAMMY ORR, General Electric-Hitachi, Global Laser Enrichment,

6 LLC

7 SAM SHAKIR, AREVA Enrichment Services

8 FELIX M. KILLAR, Jr., Nuclear Energy Institute (NEI)

9 RON CURRY, New Mexico Environment Department

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

2 CHAIRMAN KLEIN: Good morning. I think this is Enrichment Day  
3 today so we'll all be enriched by the time we finish. We obviously are looking  
4 forward to hearing from industry and we have a state representative that will talk  
5 about their experiences.

6 One of the issues that we will be talking about -- we would like your input on  
7 -- is how to handle depleted uranium. This is an issue where our staff is going  
8 through and looking at the issue in a very deliberative process. They want to  
9 make sure we're protecting people and the environment, that we look at the  
10 regulatory, the legal and the environment aspects of that issue.

11 So, today we'll hear from our industry representatives first and then this  
12 afternoon we will hear from our staff and then we will go into a closed session to  
13 talk about some specific security issues. Any comments from my fellow  
14 Commissioners?

15 COMMISSIONER JACZKO: Yes. I'm glad you raised the issue of  
16 depleted uranium. I think it's one in particular that has some relevance to the  
17 group we have in front of us because it's obviously a waste product or a waste  
18 stream from facilities that you have. The Commission has a paper in front of us  
19 now on how we approach this issue. It largely came up in the LES proceeding,  
20 actually, about how we would exactly handle depleted uranium and how we would  
21 categorize it.

22 Right now under our regulations it's through a loophole, I guess you could

1 say. It's considered a Class A waste and I'm not sure that's what anyone had in  
2 mind, so I certainly would be interested as you go through -- either I'll ask in  
3 questions or if you want to go ahead and address it whether you think that that  
4 material is properly classified as Class A waste. If not, then how do we address  
5 that and deal with it.

6 I think that will be an interesting issue and one that is of relevance I think  
7 particularly to your facilities. Thank you.

8 CHAIRMAN KLEIN: We'll begin and hear from LES.

9 MR. SMITH: Hello, my name is Gregory Smith. I'm the Chief  
10 Operating officer and Chief Nuclear Officer for LES building a facility, the National  
11 Enrichment Facility, just outside of Eunice, New Mexico.

12 Before I begin my presentation I'll point out at the end of the presentation  
13 are the list of acronyms. Those acronyms will be used some in my presentation,  
14 but they also include all the acronyms that will be used in all presentations that  
15 follow mine.

16 The presentation is laid out as successes and challenges in the licensing,  
17 construction and other general areas. I'll start with the licensing arena.

18 First, from a success standpoint we considered the licensing application  
19 process to be a success. It went smoothly. It met our expectations. As you know,  
20 uranium enrichment facilities deal with classified material and the fact that our  
21 quadripartite agreement that existed between our owners, the governments of the  
22 UK, Netherlands, Germany and the United States, the fact that that was in place

1 prior to that process was we believe part of the reason why it went as smoothly as  
2 it did.

3 Another success. We have been very impressed with the support of the  
4 NRC staff, both in the licensing process and throughout the inspection process.  
5 We have weekly communications with the NRC both at the region and  
6 headquarters level to go over exactly where we are in the project and where we  
7 are in our construction schedule allowing the NRC adequate knowledge of what's  
8 going on so they can schedule their inspections to be there, see the things that  
9 need to be performed during the inspection process.

10 I could not be more complimentary of their support of our project and  
11 they're willing to work with us on our construction schedule.

12 Some of the challenges in the licensing process. The first one is  
13 constructing under a construction operating license. I operated nuclear power  
14 plants for 30 years. The best way I could describe it -- it's like building a nuclear  
15 power plant while you're operating it.

16 What makes it such a challenge is the number of decisions and issues that  
17 have to be decided on a daily basis; issues around analysis, assessment, actions,  
18 design criteria. They require very quick decision making processes so that you  
19 can maintain compliance with your operating license.

20 Regardless of how adequate your design is construction is not an exact  
21 process. Any deviation from that design has to be reconciled as soon as it is  
22 determined and that's a challenging process.

1           We have the benefit of if we follow our design, knowing that we will get an  
2 operating license at the end, but it certainly makes the construction process  
3 challenging, more so than when we built the nuclear power plants under a different  
4 process.

5           Other challenges: Design and building an enrichment plant. We've  
6 recognized as we've gone through the process that there are better ways to build  
7 the plant, make it safer, more reliable and aid us in our construction process. That  
8 has resulted in a number of design changes that have involved licensing  
9 amendments. The staff has been very supportive of that process, but it certainly  
10 has been challenging to us as well as the staff.

11           From a construction standpoint, first let's talk about successes. One that's  
12 not on the chart, but the one that I consider to be the most significant success on  
13 the entire project. We have worked 3.5 million hours and never had a construction  
14 related lost time event. The only lost time event we've had was an administrative  
15 assistant walking across the parking lot and she sprained her ankle. That is an  
16 amazing achievement on the part of the construction personnel.

17           Average construction lost time with 3.5 million hours would be greater than  
18 40 lost time accidents during that time period. That shows the level of importance  
19 that the people and the organization placed on safety and their unwillingness to  
20 compromise with regards to that.

21           The second area that we consider a success is the fact that construction is  
22 a tough process, but we continue to remain on schedule. If we continue to

1 maintain that track, we will be online for a First Cascade sometime toward the end  
2 of this year.

3 Challenges: First of all, a uranium enrichment facility is different. It is  
4 different in that it begins operation well before construction is complete. Because  
5 as we bring halls on and cascades online we continue to go through the  
6 construction process where other halls are operating.

7 What that requires is a very detailed analysis almost on a daily basis of  
8 exactly what construction processes are going to be engaged in to make  
9 absolutely certain that you're evaluating them against the facility safety basis and  
10 there is no negative impact of construction on the operating portion of the plant.

11 It's unlike anything you would see on a routine basis in other nuclear  
12 applications. It's a very important part of our process. It's one we're working on  
13 today. We've already got operations intimately involved in the construction  
14 process today: permitting excavation, doing power, so that they are prepared to  
15 execute that responsibility as we move forward into operations.

16 Construction resources lack the nuclear culture and require careful and  
17 constant supervision, particularly in the areas of procedural compliance and  
18 verbatim compliance with design.

19 Anywhere else in construction industry more concrete and more steel is  
20 usually considered better. But when you're pouring a slab on a roof and it calls for  
21 three quarter inch coverage on rebar an inch and a half is not better. And that  
22 means you have to have people in the field working with your construction craft to

1 help them understand that if it calls for three quarter inch covers that's exactly  
2 what's expected. That means you have to have good foremen, you have to have  
3 good supervision, and they have to be in the field every single day.

4 Third challenge is the NRC inspection schedule coordinating with  
5 construction schedules, but particularly around the operational readiness review  
6 process. The understanding that when the NRC comes out to do an operational  
7 readiness review that that cannot be performed until all systems and equipment  
8 are complete and available for service and predetermining months in advance  
9 exactly when that's going to occur so the NRC can schedule their resources in at  
10 that point in time.

11 If you're a week behind and that's on the schedule they show up and if the  
12 procedures aren't issued and the equipments not ready for service then their  
13 process does not allow the ORR to proceed. So, pre planning that we've gone  
14 through a number of operational readiness reviews already. The NRC has done  
15 an excellent job of working with us. That is certainly part of the challenge of the  
16 process.

17 Now, the other challenges -- the other successes is the relationship we  
18 have with our community. A nuclear organization is different in that we do not  
19 have a right to operate in a state or a community. It's a privilege. That privilege is  
20 forfeited if you lose the confidence and trust of the community in which you  
21 operate.

22 We constantly work at maintaining that privilege by keeping them up-to-date



1 on exactly what's going on at the plant and allowing them to meet the people.  
2 People don't trust machines. They trust individuals. And so, establishing a  
3 personal relationship with the people who will be operating the plant with the  
4 people in the community.

5 We give tours of our plant every week. Anybody in the community who has  
6 an interest in seeing our plant has an opportunity to come out, see it, walk through  
7 it, understand it. The better they understand it, the better they know the people,  
8 the more confidence and trust they have in us and we maintain the privilege to  
9 operate.

10 The need for security clearances. Several hundred security clearances  
11 were required for our facility. That was a stretch to the U.S. government  
12 resources. There were times when we got security clearance less than 24 hours  
13 of when it was absolutely needed, but at no time did that process hold us up. We  
14 were nervous, but it never held up our schedule.

15 And then experienced nuclear worker talent pool. We were fortunate in that  
16 we have the first commercial nuclear construction project in the United States in  
17 decades, so many people wanted to be a part of our project. Nevertheless, the  
18 nuclear worker pool is tight and as we go forward with building nuclear power  
19 plants it will become even tighter.

20 The last area is around tails. We consider tails an asset first before it is a  
21 waste because based on the price of uranium we can reprocess our tails. But at  
22 some time that is not economical.

1           We have two different options with processing our tails. One is either to  
2           deconvert with a private industry in the United States or shipping our tails to the  
3           U.K. where we are designing and building a deconversion facility in the U.K. and  
4           then disposing of the U-308 either in a public or a private disposal facility and  
5           using the UF in the electronics industry.

6           The last item, there are a few pictures. The first picture is June 2007.  
7           Basically, the only thing that was there in June 2007 was just a bunch of  
8           construction trailers and we were doing dirt work. If you flip through the pictures  
9           and you get all the way to the last picture it shows you where we are today.

10           The centrifuge assembly building, the large building on the top part, is  
11           complete. The operational readiness review for that building was conducted last  
12           week, both security, IT and our ability to run the hot acceptance test.

13           The NRC will give us their final answers on the ORR conducted last week  
14           by February the 13th. If they are satisfied with our readiness we receive uranium  
15           hexafluoride on the 14th, load it into the centrifuge test facility on the 19th and  
16           begin testing assembling centrifuges immediately downstream.

17           The separation building is 98% complete. Hall No. 1 had its security  
18           operational readiness review last week. It was successful. That allows us to  
19           begin installing classified material in Hall No. 1. The centrifuge utility building will  
20           begin powering the site on March the 15th.

21           The technical support building is about 75% complete. It houses a control  
22           room and that control room will be habitable in the July time period.

1           The project has a lot of work left to do. We are planning on a first cascade  
2 toward the end of this year. We will continue to construct for another four to six  
3 years downstream as we add more cascades on line. That concludes my  
4 presentation.

5           CHAIRMAN KLEIN: Thank you. We'll hear from the U.S.  
6 Enrichment Corporation.

7           MR. SEWELL: Thank you very much. Chairman Klein and  
8 Commissioners, good morning. My name is Phil Sewell and I'm Senior Vice  
9 President of the American Centrifuge Program and the Russian HEU Programs.  
10 And I appreciate the opportunity to provide a perspective on the challenges and  
11 successes that we realized as we've constructed an American Centrifuge Plant in  
12 Piketon, Ohio.

13           Our vision is simple and that is just to deploy a cost-effective uranium  
14 enrichment technology, to provide a long-term, reliable, competitive fuel source  
15 using U.S. technology to the growing number of nuclear power plants in the United  
16 States.

17           I'm on page 2. The American Centrifuge Program has a number of  
18 significant benefits that I'd just like to point out. First, this is helping to revitalize  
19 the domestic nuclear industrial base. We've recruited experienced centrifuge staff  
20 and recovered and reviewed approximately 20 years of centrifuge documentation.

21           We've reestablished and modernized multiple facilities for testing and  
22 component manufacturing in Tennessee, Indiana and West Virginia. And in this

1 process we've identified and incorporated strategic suppliers as part of the team to  
2 deploy the American Centrifuge.

3 The American Centrifuge Plant will strengthen both energy and national  
4 security by providing a continuous source of domestic enriched uranium. It is  
5 noteworthy that certain national security interest can only be maintained or met by  
6 U.S. enrichment that uses U.S. technology. And deployment of this American  
7 Centrifuge Plant will increase environmental quality, clean energy by the use of  
8 significantly improved technology that uses less power and therefore reduces  
9 greenhouse gas emissions that would otherwise be required to enrich uranium.

10 And lastly, and probably most importantly in today's economic climate, this  
11 project is creating new, highly paid, skilled jobs in the United States today that will  
12 total over 3,000 based upon direct and indirect job creation. Therefore, this project  
13 will be a substantial contributor to the economic revitalization that's needed in the  
14 U.S. economy today.

15 On page 3, I just wanted to highlight as background that the Lead Cascade,  
16 our demonstration facility, was the first license application to exercise NRC's  
17 licensing process in 10 CFR Part 70 Subpart H.

18 The application and review process established a strong precedent and set  
19 the standard for future NRC reviews for uranium enrichment facilities. The Lead  
20 Cascade license application and the process that the NRC and we use became  
21 the foundation for future plant licensing.

22 The licensing of this Lead Cascade achieved two very important objectives.

1 It provided experience for both NRC and USEC with the licensing process for  
2 uranium enrichment facilities. It also provided the opportunity to familiarize NRC  
3 with our technology, the site, the facilities and programs.

4 So, we structured our approach to plant licensing on this model that we felt  
5 was successful. The licensing strategy employed a conservative approach to  
6 minimize any impacts during the licensing process.

7 Specifically, our license application conformed to NUREG-1520 of the  
8 Standard Review Plan for the review of the license application for the fuel cycle  
9 facility.

10 Use of the standard submittal format for new applications facilitates a  
11 uniform and clear review and presentation. This Standard Review Plan provides  
12 guidance on those areas that NRC will review and the acceptance criteria that will  
13 be applied.

14 Two, it will provide parameters for NRC's review and it will result in a  
15 process that's transparent for the licensee and stakeholders. Therefore, the  
16 expectations are transparent.

17 We clearly identified some unique issues. For example, due to the modular  
18 nature of the technology of the environmental report in the environmental report  
19 we evaluated the environmental impacts of expansion, essentially doubling the  
20 capacity of the planned facility.

21 We also established a multi disciplined review process at the outset. This  
22 review was conducted at various milestone points of the license application

1 development. And to aid in the internal review and subsequently NRC's review we  
2 prepared what we called a compliance matrix. This was a line by line compilation  
3 of how the guidance contained in the Standard Review Plans was incorporated in  
4 the licensing documents. This overall process led, we believe, to a high-quality  
5 submittal.

6 Our approach has been to gradually and deliberately increase the scope of  
7 construction activities for the centrifuge plant. We employed the graded  
8 approach and incorporated lessons learned from the nuclear industry.

9 Numerous internal assessment and audit activities were conducted prior to  
10 declaring construction readiness. We conducted an independent audit of our  
11 quality assurance program implementation as well as an audit of our engineering,  
12 procurement and construction contractors' quality assurance program.

13 The engineering procurement and construction contractor also conducted a  
14 construction readiness assessment with our personnel observing. Construction  
15 commenced on May 31st, 2007, approximately one month after receiving our  
16 combined license.

17 Industry lessons learned have been factored into our planning and  
18 execution. Consistent with the entire nuclear industry, one of our challenges has  
19 been to find suppliers with the requisite nuclear experience and quality assurance  
20 commitment.

21 As a result we found it necessary to take a more direct role in oversight of  
22 contractors, subcontractors and suppliers. We are employing audits,

1 assessments, field observations, sub-supplier evaluations, on-site inspections,  
2 some full-time and receipt inspections to ensure appropriate safety and quality  
3 objectives are achieved.

4 As construction is progressing we are in parallel beginning a plan for the  
5 operational readiness and management measures inspections that the NRC must  
6 conduct prior to operations of the facility. We are coordinating with the Regional  
7 II personnel and putting in place internal readiness review processes based on the  
8 successful process we use for the Lead Cascade.

9 This concludes my prepared remarks. Thank you for the opportunity to  
10 provide these perspectives.

11 CHAIRMAN KLEIN: Thank you. Tammy, I bet we'll hear from GE.

12 MS. ORR: My name is Tammy Orr and I'm the President and CEO  
13 of GE-Hitachi Global Laser Enrichment, commonly referred to as GLE. I do want  
14 to thank you again for the time to speak with you this morning.

15 First, I'd like to give a brief overview of our program. The real goal of our  
16 program is to provide the next generation safe enrichment technology that  
17 provides value for our customers and value for our shareholders.

18 Our first significant milestone in the licensing process was achieved in April  
19 of last year as we identified Wilmington, North Carolina as a selected site. And  
20 then as recently as last Friday we submitted our environmental report for the  
21 commercial facility and we'll be following that in the next several months with  
22 additional information to complete the license application submittal.

1           Throughout this we have followed closely the guidance in the regulations as  
2 well as been able to be informed by the lessons learned from those who have  
3 gone before us. So, it's been an effective process.

4           It's clear that there is a need for additional enrichment capacity to meet the  
5 global needs right now for energy supply. Specifically, the U.S. has also identified  
6 a need for energy independence and security.

7           With nuclear energy offering base load power to address the world's  
8 converging needs of energy security and climate change its prudent that we  
9 deploy advanced technologies to prepare ourselves for the next 40 plus years of  
10 nuclear generation. We believe that the laser enrichment technologies is one of  
11 those advanced technologies.

12           So, now, let's get to some successes and some challenges. As we started  
13 down this path of licensing I would say that the first success we've noted has been  
14 the NRC staff themselves. They've been open and responsive throughout the  
15 process explaining regulations and providing their input on the content needed to  
16 perform a thorough safety evaluation.

17           Their responsiveness has enabled an effective licensing process for us.  
18 Now we are well on our way to a complete and quality document that we will again  
19 be submitting the final parts of later this year.

20           Another area of importance is obtaining security clearances for both people  
21 and facilities. Early on in this program what we found is that the timelines were  
22 much longer than we had anticipated, but we do want to note today that in looking



1 back over 2008 we saw a substantial marked improvement in the timelines for  
2 both personnel and security clearances.

3 We've also been -- we've also seen open and responsiveness from the  
4 NRC security staff associated with those clearances.

5 We also feel that our site selection decision has played a positive role in the  
6 licensing process for us. A decision to co-locate the GLE facility beside the GNFA  
7 licensed facility has enabled us to take advantage of existing site programs and  
8 infrastructure that are already in place today.

9 We've had over 40 years of safe, compliant operation at the Wilmington site  
10 and our intention is to continue that performance and continue to be a good  
11 corporate citizen and a good neighbor in our community.

12 And then the final area that I'll highlight for a success this morning is the  
13 environmental report guidance, NUREG-1748. It was easy to understand and it  
14 provided adequate detail for an applicant to provide a submittal.

15 In addition, there are numerous examples publicly available of  
16 environmental reports and environmental impact statements to use as references  
17 to find examples and to use for lessons learned.

18 But then on to challenges. The safety guidance in several instances was  
19 not as clear as the environmental guidance. A lot of the documentation from other  
20 applicants and licensees was not publicly available either because it was  
21 proprietary information or security related information and as a result it was more  
22 challenging to assess the level of detail required for an acceptable application.

1           Just a few examples include decommissioning cost estimates. The level of  
2 detail required in the guidance was challenging compared to the stage in the  
3 design process at which we were.

4           Another example is earlier pre-construction activities. There is no guidance  
5 for fuel facilities on requesting early construction activities that are non-safety  
6 related work while there is guidance for reactors. But in all of these areas it's  
7 worth noting that the staff guidance, the staff interactions provided the additional  
8 clarity needed.

9           The last area that I wanted to address was protection of classified  
10 information and technology. One of the challenges related to this was the need for  
11 interagency coordination for support of the approval of a secured network.

12           In addition, I spoke earlier about the timelines on personnel clearances.  
13 One of the things that we also have is a pool of resources in the industry that  
14 already have their clearances. The challenge there, though, is -- as one of my  
15 colleagues mentioned earlier -- that pool is very limited.

16           And in the same line the supply chain is also limited. So, in the U.S.  
17 cleared manufacturing and fabrication facilities are limited and we believe that in  
18 both the area of people and businesses that there is a great opportunity to see  
19 additional capacity, capability and availability of those resources to support the fuel  
20 cycle activities and the ongoing nuclear expansion.

21           That's all that I have today and I hope some of this information was helpful  
22 and look forward to talking with you later.

1 CHAIRMAN KLEIN: Thank you. Well, we'll now hear from AREVA.

2 MR. SHAKIR: Good morning. Chairman and Commissioners. My  
3 name is Sam Shakir. I'm the President and CEO of AREVA Enrichment Services.  
4 I wanted to thank you for taking time on this important topic. I think it's vital for the  
5 industry. I'm going to present the AREVA Eagle Rock Enrichment Project.

6 As you know we just submitted the license application for this facility and  
7 we'll focus on the need for the facility as well as some of the licensing issues  
8 pertaining to the review.

9 On my second slide, it's why we're here. We're all here because there is a  
10 need for domestic enrichment capacity. For the longest time and where we are  
11 today we are heavily dependent on imported enrichment services as well as the  
12 HEU -- the U.S. Russian HEU agreement which allows for the down blending of  
13 HEU material from Russia. That alone -- the HEU accounts for 50% of the  
14 enrichment supply today.

15 We are heavily dependent on foreign supply for enrichment services;  
16 therefore, timely addition of domestic enrichment capacity is vital to our nation's  
17 energy security and to the operation of our 104 nuclear power reactors here in the  
18 U.S.

19 That's 20% of our electricity that is generated by these reactors without any  
20 harmful emissions. So, the need is now and we must build this capacity.

21 Many of these U.S. reactors that I spoke about here have already made  
22 commitments for Eagle Rock Enrichment Services. So, we are here and they are

1 dependent on this supply to come to them in a timely fashion.

2 So, while we just submitted the license application to the NRC, it highlights  
3 what the power reactor operators are viewing the market and the need for  
4 contracting and securing their supply in the long-term.

5 On a global scale the demand for enrichment is rising and that's primarily  
6 driven by the lower tail assays as well as the new construction. Two areas,  
7 primarily Asia and the United States, are the major contributor to that rising  
8 demand.

9 So, therefore, what we're looking at here is not just the current operation of  
10 the 104 reactors, but therefore running those reactors more efficiently and using  
11 less uranium with lower tail assays, but also the new construction that's going on  
12 on a global level.

13 To secure this clean source of energy we need enrichment capacity here in  
14 the United States and we need to come online in a timely manner. Of course, it all  
15 starts with a license granted by the NRC.

16 So, let me spend a minute here on the Eagle Rock Enrichment Project --  
17 facility in Idaho. A little bit on the timeline. We notified the NRC of our intention to  
18 move forward with this project in May of 2007.

19 Since then we went through a rigorous process of siting the facility and in  
20 May of 2008 we made a decision to site the facility in Idaho. We have, since May  
21 of 2008, which was only eight months ago, worked tirelessly to prepare a high  
22 quality license application which culminated in a submittal to the NRC on

1 December 30th of 2008.

2 We look forward to working with the NRC as they move forward in their  
3 review process. We understand that the docketing review is near complete and  
4 we look forward to hear back from the NRC with their acceptance letter.

5 Idaho is a terrific location for this facility. We have very strong support from  
6 the local community and I echo what my colleagues here said about the  
7 importance of that kind of support.

8 We have worked with them diligently over the past few months to inform  
9 them about the facility, about the timeline, about it's importance for our industry  
10 and they fully understand based on the history of that area with the interactions  
11 and having the INL next door they fully understand nuclear energy and they  
12 understand the importance of that source of energy for our country.

13 So, we're very pleased to be in that location. We have terrific support and  
14 complete alignment between the local, the state and the state representatives here  
15 in Washington, D.C. as far as the importance of this project.

16 The NRC conducted a public outreach meeting on December 5th in Idaho  
17 Falls and I was there. Many of your staff were there. I can tell you it was a  
18 remarkable display of support. More than 400 people jammed into a conference  
19 room and at one point I think one gentleman got up and asked if anyone -- for all  
20 those in the room that support the facility to stand up. I can tell you that every  
21 single person in the room stood up. So, there's terrific support for our project, but  
22 it also highlights the terrific support that the public now has for nuclear energy and

1 its role in our energy mix.

2 Let me go back to the license application that went in on December 30th.  
3 We believe we submitted a high quality license application. We fully understand  
4 that the quality of the application has a significant impact on the NRC review and  
5 its ability to conduct its review in a timely fashion.

6 We are sensitive to the NRC's limited resources that are applied to our  
7 application as well as the other efforts that you're undertaking on keeping our  
8 industry safe as well as the other applications that you're handling. The good  
9 news with respect to our application is the NRC has seen this before.

10 Our application is very much modeled after the LES application. The Eagle  
11 Rock Facility will utilize the same state of the art technology, centrifuge technology  
12 that is currently being deployed at the NEF.

13 In fact we went as far as bringing into our team some of the same experts  
14 who developed a big portion of the LES application. Just, for example, the  
15 socioeconomics as well as the analysis of need.

16 To further simplify the NRC's review our application provides pointers to  
17 where the application in some areas of the application it may be different from the  
18 LES application and why. It explains why that is different. We believe that will  
19 help the reviewers and the staff run through that application as quickly as possible.

20 We also reviewed all of the RAIs and made sure that we incorporated into  
21 the application all of the necessary information to satisfy the reviewers.

22 We dealt with some of the environmental issues that we noticed were

1 contested on the LES application right up front from our site selection process, so  
2 we feel we selected a site that would eliminate some of those issues that were  
3 identified earlier in the LES review.

4 We sought further to reduce impact on the environment through improved  
5 design, such as eliminating the use of evaporative ponds for treated liquid  
6 effluents.

7 As I previously mentioned in my remarks we have commitments already for  
8 a big portion of the output of the Eagle Rock Facility from currently operating  
9 nuclear facilities in the U.S. These plants are counting on our facility to come on  
10 line in a timely fashion.

11 I want to commend the Commission here because you are instrumental in  
12 the success of the LES and the USEC application. The actions you took from the  
13 onset in the hearing order as well as your continuing oversight of the review  
14 process of those two applications were key to the success of those applications.

15 The hearing orders provided a clear framework and a timeline of 30 months  
16 for the staff to follow. The assignment of a strong licensing board and continued  
17 Commission oversight provided discipline necessary for a timely completion of the  
18 licensing process. We believe a similar approach on our application will yield  
19 similar success.

20 With a sensitivity to the NRC resources we have done things in our  
21 application as I mentioned a second ago that we hope can help streamline your  
22 review. We believe that the NRC can achieve its review of the Eagle Rock license

1 application in less time than the 30 months it took for the NEF without sacrificing  
2 the quality of the review or the public participation in this process.

3 You have successfully completed the review of the NEF application in 30  
4 months. That was a first of a kind, so we think a 24 to 30 month timeframe for our  
5 application is achievable and reasonable.

6 As I mentioned earlier I thought one of the key successes were the hearing  
7 orders that you issued and the oversight that you provided on those two previous  
8 applications, the LES and USEC. We think that's fundamental.

9 We also believe that the Commission clearly resolved some key policy  
10 issues in the previous proceedings on LES, namely depleted uranium, disposition  
11 and non-proliferation.

12 The Commission decided that relying on Department of Energy for  
13 disposition of the depleted uranium is a plausible strategy. The Commission also  
14 decided that licensing by the NRC of an enrichment facility is not the forum for  
15 adjudicating broad non-proliferation issues. Therefore, we believe that these  
16 issues have been resolved by the Commission and should not be reopened for  
17 litigation in the Eagle Rock Enrichment Proceeding.

18 To sum it up, adding domestic enrichment capacity is an urgent and  
19 eminent need. AREVA submitted a quality application that incorporates the  
20 lessons learned from previous applications. We believe that it is fundamentally  
21 important for the Commission to be involved in the onset with the hearing order  
22 and in the oversight of the review process.



1           We finally look forward to working with the NRC to achieve the success on  
2 this application as the NRC was successful in the previous two applications.  
3 Thank you. That concludes my remarks.

4           CHAIRMAN KLEIN: Thank you. Felix, we'll hear from NEI.

5           MR. KILLAR: Chairman Klein, Commissioner Lyons, Commissioner  
6 Jaczko, Commissioner Svinicki, thank you very much for this opportunity to come  
7 and speak to you this morning and talk about the successes and challenges for  
8 the enrichment licensing facility.

9           I think one of the fundamental things that is important and sort of underlies  
10 the whole thing it's been hit on as we've gone through the various presentations.  
11 Being the last presenter from the industry perspective I'm sort of the clean up man.

12           But one of the things that we think is fundamental is clear regulations. We  
13 think generally speaking the regulations are in very good shape. We think  
14 activities that have been ongoing during the construction review has been very  
15 well-received. That also has been very successful.

16           Some of the challenges that came up on clearances and security and what  
17 have you early on have been addressed and we think that's been very successful.

18           All of this activity we're not aware -- at least I'm not aware -- of anything that  
19 was held up because of an NRC activity. The NRC has been very responsive to  
20 the licensees, the applicant's needs to address the issues, address them in a  
21 manner that met both the NRC's concerns as well as the issues from the  
22 licensees.

1           What this comes down to is, I think, two things. First off, it comes down to  
2 the staff and the staff having knowledge and an understanding and an  
3 appreciation for its facilities. Therefore, it's important to the industry as the NRC  
4 continues on and staff rotates in and out that the new staff have an understanding  
5 of the enrichment facilities, risk at the enrichment facilities and the way those risks  
6 are addressed.

7           One of the things we think the NRC has done an excellent job -- and  
8 hopefully will continue to do it -- is the education of your staff. But more  
9 importantly I want to acknowledge some particular staff members. Brian Smith, for  
10 example, has been an excellent resource. He's been open to any questions  
11 raised by the licensees. Very responsive and open to meetings to discuss the  
12 issues.

13           Similarly, Dan Dorman and Mike Tschiltz have supported him very well and  
14 his staff has been excellent as far as addressing questions. I'd certainly like to --  
15 when we talk about success stories I think the NRC staff is very much a success  
16 story for this whole program.

17           With that as background, I do want to touch briefly on a few other success  
18 stories. As been alluded to is the 30 month review schedule. We think that's been  
19 an excellent job for USEC and LES. I think also as AREVA has indicated that they  
20 think a 24 to 30 month cycle -- review cycle is reasonable. We would think it  
21 would.

22           I anticipate those have something similar although the technologies are

1 considerably different when you talk about the General Electric one, but we think  
2 that the review schedule has been very good and we'd like to see the staff  
3 continue that. We think it's very successful.

4           On the construction reviews we had some bumps in the road when we first  
5 got started, but through working with the staff, working with the industry to address  
6 how we go through and do these construction reviews what have you, what are  
7 the items that are important to safety when you're looking at construction and stuff  
8 has been very helpful and successful in bringing those programs forward. As LES  
9 has pointed out that's going very well now.

10           And finally, the clearance process. As we've evolved here since 9/11 the  
11 questions of security and protection of classified materials has been, I guess,  
12 accelerated and exacerbated, what have you. But fortunately, the NRC stepped  
13 up to the plate and has not caused any delays or any concerns -- they have raised  
14 some concerns -- but they have been addressed as we go along. We certainly  
15 wanted to acknowledge the NRC in all those areas.

16           With that being said -- and I've taken half my time with that -- I do want to  
17 go on and just quickly run through my presentation here. What we've done is  
18 we've put together a task force of all the four organizations that have applications  
19 under review and development as well as under construction.

20           What that task force is looking at is two things. One, what we're looking for  
21 is to assure the regulatory framework is stable and an effective process both for  
22 the NRC and the licensees. But also as we go forward what we want to do is

1 continue to see that the oversight as we go through and operate these facilities  
2 does not become a burden on the licensees or on the NRC; that we have an open  
3 public process that allows everybody to have a good comfortable understanding of  
4 where it is, what the risks are, things on that line. That's part of our effort.

5         What we've done is we've kind of looked through and said if you were to  
6 start building an enrichment facility from cradle to grave what are the things that  
7 you will do? We broke it down into the pre-application process, the licensing  
8 process, the operation process and the termination. We can go through these  
9 fairly quickly.

10         If you go to page 5 or slide 5, for instance, I don't think people realize that  
11 when you get into pre-application this is the list of things that you have to look at  
12 and consider before you ever submit your license application. It's a rather  
13 daunting list, but I think the licensees have been very successful in getting through  
14 this and I think the staff has been very helpful in getting through this list of items to  
15 make sure that they are addressed, they're addressed properly and they're  
16 addressed with the concerns of both parties adequately addressed.

17         Moving on to the license review, application review. I think this was  
18 touched on a little bit. When you're doing both the environmental report and the  
19 license application the level of detail is a major item. How much do you put in?  
20 How much do you not put and? Where do you make that line of demarcation?

21         Once again, I think the cooperation of staff has come up with a fairly good,  
22 clear line of demarcation. We have not had any major issues, but it continues to

1 be a concern.

2           Completeness of application and timing of submittals. I know when they've  
3 talked to staff in the pre-application meetings they've talked about their workload,  
4 the industry's workload, to try to make sure that we help harmonize the workloads  
5 between the industry and the staff so that we are not putting a burden on the staff.  
6 At the same time, the staff has the opportunity to be responsive to the industry  
7 needs.

8           Review time. We've already touched on that already. The acceptance  
9 review, which Sam just talked about. The RAIs, the environmental report, the  
10 SER, and the public hearing process have all been touched upon. Once again, I  
11 think these are going very well. We think that the processes are very good in  
12 these areas. Certainly, anything can always be made better and we'll look at what  
13 minor adjustments can be made.

14           In construction, pre-construction activities, the construction schedule as  
15 LES talked about, the NRC construction inspections; making sure that the  
16 inspectors see what they need to see; that they don't impede construction at the  
17 same time. The NRC is comfortable that they have seen what needs to be seen  
18 and they are looking at the safety significant items.

19           The operation readiness and pre-operation completeness reviews. Once  
20 again, these are all things that have to be addressed. We're looking at it.

21           Once you get your license application approved, you got it built, then you  
22 move into operations. In this area there's a whole series of things that are working

1 rather relatively well. Although we don't have as much experience in these areas  
2 because we're only -- USEC's GDPs is the only ones currently operating, although  
3 we do have some demonstration plants.

4 We do have the Resident Inspector Program. We have additional routine  
5 inspections. We have special inspections. There's the overall enforcement  
6 program and as I talked about earlier it's the oversight program which we're  
7 looking at in conjunction with the NRC staff for all of Part 70 facilities and Part 40  
8 facilities as well.

9 License amendments. That's one of the things that's sort of a new area  
10 here because of the process it went through for the licensing of USEC's facility  
11 and LES that the license amendments we first started looking at those and ran into  
12 some issues, but I think we've got those behind us.

13 Eventually we're going to get to the situation of license renewal. Hopefully,  
14 we'll get to license renewal, but we think that the precedence is being set and  
15 other parts of Part 70 will prevail in this part as well and we will be successful  
16 there.

17 One of the jokes they used to talk about early on back in my early days is  
18 that it's hard getting an NRC license, but then once you get it it's hard to get rid of  
19 it.

20 License termination is also a concern. Hopefully, we're not going to be a  
21 big concern. Certainly, the criteria for free release of sites. How do you  
22 demonstrate what Mother Nature put there versus what's there as a result of your

1 operations will continue to be an ongoing story? Hopefully by the time these  
2 facilities get to the termination point that's not going to be that big of an issue.

3 We are looking very closely at what's going on with the decommissioning  
4 rule that currently has been remanded back to the staff to look at because  
5 certainly the aspect of the funding requirements for the decommissioning, what  
6 have you, are a major component in financing the facilities up front. That has a  
7 very important aspect.

8 Moving into a quick overview, I think what you've heard -- and I'll just repeat  
9 it real quickly here -- is that there's certainly a need and a future for these facilities  
10 to serve the existing fleet and the future fleet.

11 I might point out we're looking at the fleet beyond the U.S. We're going to  
12 be building reactors here, but we're also building overseas. I would anticipate that  
13 all these gentlemen and ladies aside of me are glad to sell to foreign customers as  
14 well as domestic customers.

15 By having these facilities here in the United States it does improve our  
16 energy security and I think that's where we're going to is that we're looking at  
17 energy security these days.

18 Certainly, and most predominantly, it does provide support for creating jobs  
19 in the domestic industry. I think USEC pointed out that their program has created  
20 about 3,000 jobs for this. So, it is very important.

21 We're leveraging the proven technologies and industry experience as  
22 you've seen, particularly with the AREVA application being built using this

1 technology and the experience from LES. They're moving forward.

2 We do see a continuing need for a predictable and effective licensing  
3 process, which I mentioned in my opening remarks.

4 The Commission oversight and effective hearing process is very critical. I  
5 think Sam very well laid that out, so I won't spend any more time on that.

6 I think we do have a few challenges, but I don't think that they're very  
7 significant. They're not showstoppers or anything along that line, but it's an  
8 opportunity to improve the situation.

9 A comprehensive set of requirements unique to enrichment facilities is  
10 needed. These are Part 70 facilities. Part 70 typically leans towards nuclear  
11 criticality as a major risk at the facility. For the most part these facilities and  
12 nuclear criticality is almost a non-event. So, it's certainly a concern, but it's not  
13 any event.

14 The chemical security, the HF UF6 fluorine content certainly is one of our  
15 major concerns and we need to protect against at these facilities. And so, maybe  
16 some more guidance and some more things unique to that aspect of it.

17 Quality assurance, pre-construction activity and environmental issues.  
18 These areas here -- I think what we're running into here and I think what you've  
19 seen and heard is that we haven't built significant facilities in this country for a  
20 number of years. And while we do have good quality assurance programs for the  
21 operating facilities, the new facilities when you get into quality construction you've  
22 seen at the LES facility, you've seen it at the MOX facility, we're still in a -- I guess



1 you'd say -- a re-learning curve of quality assurance.

2 That's something that we need to continue to spend industry efforts on and  
3 certainly encourage the NRC, and I know the NRC will help us in that area as well,  
4 to make sure that our quality assurance programs are adequate and actually what  
5 we do seems to be more than adequate.

6 And then the last item is protection of classified information and technology.  
7 We've had an ongoing effort with the staff to develop industry guidance for the  
8 protection of classified information and technology. I had hoped to say today that  
9 we were done with that, but its back in our lap, but we haven't quite got our  
10 comments back to the staff on their comments.

11 That's my points for this morning.

12 CHAIRMAN KLEIN: Thank you. Well, I'd like to thank you, Ron, for  
13 coming today. Obviously, things nuclear are not new in New Mexico, but building  
14 an enrichment facility was probably interesting. We definitely are looking forward  
15 to hearing from the state's perspective as how this went. Thanks for coming, Ron.

16 MR. CURRY: Thank you very much. It's a pleasure to be here for a  
17 lot of different reasons. I am Ron Curry. I'm Cabinet Secretary for the New  
18 Mexico Environment Department.

19 We first became involved on an official basis with the Nuclear Regulatory  
20 Commission in 2004 regarding the LES facility and we were concerned initially for  
21 the facility, the safety of the citizens of New Mexico and for our environment.

22 LES was not able to obtain a license and was unable to operate operations

1 in Louisiana and Tennessee. With that coming into our state we were concerned  
2 about placing any part of New Mexico or its citizens at risk.

3 We initially petitioned the NRC to intervene in the proceedings regarding  
4 LES. The governor's office was involved in the state's position because of the  
5 high-profile nature of the project and the potential impacts of the facility and what  
6 those impacts would be in the State of New Mexico.

7 The state, we believe, encountered unnecessary procedural hurdles before  
8 the NRC and a certain resistance to our intervention regarding our concerns  
9 regarding the storage and disposal of depleted uranium. That resistance made it  
10 difficult for the state to have a forum to express its requirements.

11 As you mentioned, Mr. Chairman, the state has had a lot of interaction with  
12 all things nuclear and so with that background we felt that we should have a place  
13 at the table. That's why that position at the very beginning was certainly important  
14 to us.

15 The state had concerns regarding the volumes of DU that LES intended to  
16 store outside its facility and the length of time LES intended to store the depleted  
17 uranium. We had those concerns because of the history of other uranium  
18 enrichment facilities operated by the U.S. Department of Energy, which again we  
19 have a lot of experiences with regard to long-term storage of anything nuclear.

20 Also in New Mexico, we were concerned with the potential groundwater  
21 contamination. New Mexico, as many people in New Mexico know, receives 90%  
22 of its drinking water from groundwater. So, the Environment Department has a

1 high concern for groundwater and how it's treated and potential effects on it.

2 The state, through the attorney general's office, also had concerns  
3 regarding the amount of financial assurance LES was required to place for the  
4 potential impacts created by the facility.

5 The NRC, however, did allow the state to address most of its major  
6 concerns through the process. The NRC should consider, I think, in the future  
7 how to make the process more friendly to the states, more amenable to the states  
8 and accessible to the states.

9 While the NRC proceedings progressed, the state of New Mexico had in  
10 place its own permitting process for LES. In our state, facilities that have any  
11 potential to contaminate groundwater are required to obtain a groundwater  
12 discharge permit from the Environment Department.

13 We are proud -- because of what I mentioned earlier -- about the  
14 importance of drinking water in our state that our groundwater discharge protection  
15 program in the State of New Mexico, we feel, is one of the most stringent in the  
16 United States.

17 LES Operations had the potential to contaminate the aquifer through the  
18 facilities industrial processes and wastewater and therefore we required LES to  
19 obtain a groundwater discharge permit. That process required LES to submit a  
20 detailed application to the Environment Department describing the facilities  
21 discharges and how it intended to protect groundwater from those impacts.

22 LES proposed permit with the Environment Department called for a storm

1 water pond, a sewage treatment system and two evaporation ponds that would  
2 hold industrial and domestic wastes from the proposed plant.

3 The Environment Department conducted a thorough review of the LES  
4 application and held a public hearing in the community where LES proposed to  
5 locate. After submitting the state's ground water permitting process, the  
6 Environment Department determined that LES did indeed meet all the  
7 requirements and we issued a groundwater permit to LES in May of 2006.

8 Despite the difficulties in obtaining standing before the NRC the state was  
9 able to enter into a settlement negotiation with LES to negotiate the issues of  
10 concern. We believe the state was able to enter into those negotiations because  
11 the state's authority over the groundwater permitting motivated LES to try to  
12 resolve the issues that have been raised by Governor Richardson, including  
13 allowing certain amounts of the temporary storage of DU in New Mexico and  
14 because LES was interested in showing the governor that it was willing to address  
15 his concerns.

16 The negotiations were hard-fought. I know Gregory was not there at the  
17 time, but he's heard tales. I assure you that there were intense, good negotiations  
18 that included not only our office and the attorney general's office, but a good  
19 strong representation from LES.

20 Ultimately, the state and LES agreed on all issues of concern regarding that  
21 agreement. The parties agreed on the limits of the amount of DU that could be  
22 stored on the site and the length of time any one cylinder could be stored at the

1 facility. The maximum cylinder limit is 5,016 and no one cylinder can be stored on  
2 the site for more than 15 years.

3 The state wanted firm assurance that the limits would not be violated and  
4 therefore we negotiated a provision that a violation of the limits would lead to  
5 suspension of LES's production of enriched uranium.

6 LES also agreed not to dispose of DU waste in the State of New Mexico.  
7 Finally, LES agreed to increase contingency factors in its financial assurance  
8 package.

9 We required that as part of the agreement, all those conditions become part  
10 of the NRC license, enforceable by the NRC. The parties requested that the NRC  
11 approve the conditions and make them part of the license even though they were  
12 not issues before the NRC that the state was able to raise and the NRC agreed.  
13 So, thank you. That was very important to the State of New Mexico and it was  
14 also very important to LES. The result, we believe, was an agreement and a  
15 license that protects the State of New Mexico.

16 LES has shown itself to be a good corporate citizen despite rocky  
17 beginnings within the state. I want to emphasize that point because LES has  
18 worked hard to gain community support within the areas of Lee and Eddy County,  
19 the primary areas in which it will operate.

20 LES certainly benefited from locating in the state where there is little  
21 development with the exception of oil and gas and that needed jobs. But LES also  
22 worked hard to demonstrate to the community that its facility would be safe for the

1 residents and for the environment.

2 LES gained the support of the community and helped the company through  
3 the groundwater permitting process before the Environment Department. There  
4 were some members of the community opposed to the facility. We received  
5 requests from a citizens' group asking for the denial of the permit. That group has  
6 continued to fight the facility's permit and is awaiting a decision from the New  
7 Mexico court of appeals. We anticipate the Court of Appeals will uphold the  
8 department's permit. Despite the group's opposition, community support for the  
9 facility outweighs the opposition.

10 I want to emphasize in New Mexico where we have a lot of high-profile  
11 projects that are either nuclear related or have an impact on groundwater that  
12 LES's conditions and negotiations working within the community of Hobbs and  
13 Eunice, New Mexico have been excellent. I can cite many other facilities within  
14 the state of New Mexico that would look to LES as a model.

15 That's not to say that the entire state supports the facility being there, but I  
16 can assure you as a permitting agency in New Mexico we do look at the  
17 community and the elected support of the community that's going to be affected.  
18 We believe that it is important.

19 There are other facilities in the state that I mentioned earlier that do not  
20 have the support of the community at large. They do not have the support of any  
21 elected officials at the City Council or mayor level. They do not even have the  
22 support of a state senator or state representatives in those areas.

1           LES, as Gregory would tell you, has all of those and I think they also have a  
2 good part of Texas supporting them as well.

3           The last thing I want to mention in the process is the dealing with the Rocky  
4 Mountain Low-Level Waste Compact. That has become important not only to the  
5 State of New Mexico, but has become extremely important to LES itself.

6           New Mexico is a member of the Rocky Mountain Low-Level Waste  
7 Compact, which consists of New Mexico, Colorado and Nevada. I've been  
8 fortunate to serve as Chair of the Compact for the last three years. The Compact  
9 has gone to great extent to look at the facility of LES and what it will be doing.

10           We believe at this time based upon what the NRC has told us in some of  
11 the classifications that we see that LES stands to be the largest generator of  
12 low-level waste in our country when in full operation.

13           The waste as it is classified right now will fall under the jurisdiction of export  
14 and import regarding that waste within the Compacts that exist within the United  
15 States. So, the Compacts have endeavored to get as much information and  
16 request as much information from LES regarding that, making sure that LES  
17 understands the requirements regarding storage and disposal in the long-term and  
18 the plans that exist either in form or in planning designs at this point in time.

19           So, I'll be glad to answer any other questions, but I do want to say that New  
20 Mexico will continue to diligently work with LES. New Mexico will continue to  
21 diligently provide a very strong and engaged oversight process to the LES facility.  
22 Thank you very much.

1                   CHAIRMAN KLEIN: Well, thank all of you for your presentations and  
2 I'd like to acknowledge the comments that you made towards our staff. That's  
3 always encouraging to hear because as I've said before people are the most  
4 important asset at the NRC since we don't make widgets. So, people are our  
5 biggest assets. Thank you for the compliments of our staff. It's good for the  
6 Commissioners to hear feedback from others on how they're performing. So,  
7 thank you for those comments. We'll begin our questioning today with  
8 Commissioner Jaczko.

9                   COMMISSIONER JACZKO: Thank you, Mr. Chairman. As I said, I  
10 think one of the important issues -- and all of you have touched on it one way or  
11 another -- is what we do with depleted uranium. I'm not so sure I would agree with  
12 the characterization that it's an issue that's been resolved.

13                   I think the Commission essentially asked the staff to give us more  
14 information about how we handle depleted uranium and we have that in front of us  
15 right now. I think it's still an issue the Commission is working through and will  
16 probably one way or another have to do some kind of changes to our regulations  
17 to properly account for it.

18                   As I said in my opening comments I think an important issue right now there  
19 is a classification of this waste as Class A waste because of a provision in our  
20 regulations, which has been controversial in the past and was a matter of  
21 controversy in the LES proceeding in trying to understand exactly what it meant. I  
22 think the Commission's determination then was that we weren't quite sure what it



1 meant, but it probably didn't mean what it meant in a plain reading. And so, we  
2 needed to try and figure that out.

3 Which, I think, leads us with a fundamental question of clearly depleted  
4 uranium has unique characteristics that are unlike other elements of materials that  
5 we dispose of as low-level waste. I think there's no question in my mind that is  
6 properly categorized as low-level waste. Then it becomes a question of whether  
7 or not we want to try and categorize it as one of the A, B, C or greater than Class  
8 C categories of waste that we have, which is not necessary, but can make it easier  
9 to figure out where this stuff needs to go when we dispose of it.

10 So, as I said right now because of the provision in our regulations that  
11 material would be considered Class A waste. That's not a position that I  
12 necessarily agree with.

13 I'm wondering if any of you have thoughts on that. If you don't -- and again,  
14 this may be something somewhat esoteric and you may all not be in the business  
15 of following too closely what all these waste classification levels are.

16 So, if you want to get back to us at a later date I'd be fine with that, too. But  
17 if anybody has any comments on that I'm happy to hear it at this point. If not, I'll  
18 go on to something else.

19 MR. SMITH: I wouldn't want to weigh in on whether it should be  
20 Class A, B or C, but what I do feel strongly about is that, number one, in deciding  
21 that that it should go through rulemaking. It's an important decision. I think there's  
22 a process in place through rulemaking to make those decisions. I believe this

1 should go through that process.

2 Second, is that whatever classification, that regulation should not preclude  
3 the categorization of depleted uranium as an asset first and only be categorized as  
4 a waste when the asset classification is no longer usable. We're worried -- there is  
5 some concern on our part that it would eliminate options if as soon as a tail is  
6 generated that it meets -- it is classified as a waste at that point in time.

7 COMMISSIONER JACZKO: The options mean some of the  
8 shipments back to the U.K. that you talked about?

9 MR. SMITH: That is correct. The shipments, being able to store it  
10 on our sites so we can reprocess it and extract more of the uranium 235. It can  
11 complicate our ability to utilize it as an asset. For instance, we can store some of  
12 our cylinders at another facility waiting to bring it back to our site and reprocess.

13 We would see that as a storage of an asset instead of a waste. I think the  
14 DOE's tails are a perfect example. They're worth billions of dollars to the U.S.  
15 taxpayers as an asset. It's not a waste at this point in time.

16 COMMISSIONER JACZKO: I appreciate that. I think, certainly, from  
17 my perspective one way or another we'll have to do some kind of rulemaking on  
18 this and I think that would give us an opportunity, certainly, and I hope you will  
19 certainly make those comments at that time because I think that's an important  
20 point we haven't necessarily considered nor fully flushed out what the ramifications  
21 would be of that.

22 MR. KILLAR: Commissioner Jaczko, if I could chime in as well. I'd

1 like to reinforce what he said is that we think that you need to go to rulemaking to  
2 really address the issue. There's certainly a number of camps as to where it  
3 should be in the classification level. I'm in one camp and I know some other  
4 people are in different camps.

5 COMMISSIONER JACZKO: Which camp are you in?

6 MR. KILLAR: I feel it meets Class A criteria and it should be  
7 considered Class A material. The concern I have with it is the form it goes in.  
8 Does it go in as UF6? Does it go in as oxide? Does it go in as uranium metal? I  
9 think that may have an impact on the final disposition. That's why I think it's  
10 important to go through a rulemaking because I think you may want to get into the  
11 aspect of what form is appropriate for it to go into the shallow end barrel disposal  
12 facility as Class A waste.

13 COMMISSIONER JACZKO: Good. I appreciate that. As I said, I  
14 think certainly from my perspective -- and I don't want to speak for the rest of my  
15 colleagues, I'm sure they'll chime in if they wish on that issue. Certainly,  
16 rulemaking, I don't know that there's any disagreement about the need for  
17 rulemaking.

18 Turning to another subject slightly related to this is -- I guess, actually if we  
19 get to another round I'll get to that a second. Sorry.

20 CHAIRMAN KLEIN: Commissioner Lyons?

21 COMMISSIONER LYONS: Well, first thanks for good presentations.  
22 This is a subject that I've been interested in for a long time. I've taken a few

1 opportunities to visit a few of your facilities. I've been down to visit the GE facility  
2 as it's being developed. I've taken an opportunity to visit Paducah in the past and  
3 also Almelo, which I think may bear some relation to at least the LES facility and  
4 maybe the AREVA one as well. And I'm looking forward to visiting LES next week.

5 Our Chairman already noted -- and I just second -- that a number of you  
6 included compliments to the NRC staff. That's certainly something we're very  
7 appreciative of hearing. I know the staff has been working very hard on this and it  
8 has been a very important area of emphasis.

9 By way of just a few questions, and Ron, if I could start with you. Welcome,  
10 after our interactions in New Mexico. You mentioned the unnecessary procedural  
11 hurdles before the NRC. Could you expand on that just a little bit from your  
12 perspectives how you think it might have been handled differently or you wish it  
13 could have been handled differently?

14 MR. CURRY: Sure. Mr. Chairman, Commissioner Lyons, when we  
15 first made the decision to seek intervenor status we did so from the Department of  
16 Environment as part of the executive branch of the governor. We made that  
17 request and it was denied.

18 Then a second request was made from the attorney general's office. There  
19 was some discussion at the time as to obviously why we were denied intervenor  
20 status and what we were told at the time was we weren't --it wasn't made clear to  
21 us why we couldn't have intervenor status.

22 And then we were told that it would be better to have the attorney general

1 make that move for the State of New Mexico even though the executive branch of  
2 government in New Mexico, as you know, is split where the attorney general, even  
3 though technically speaking is part of the executive branch certainly doesn't  
4 function under the arm of the governor; whereas the Environment Department  
5 does.

6 We felt that in the long run it would be better for the State of New Mexico as  
7 the Environment Department to sit as an intervenor rather than the attorney  
8 general because of the fact that we were gathering most of the data that was  
9 going to be collected regarding the ground water discharge permit, as regards to  
10 any possible air quality issue, as regards to any possible environmental justice  
11 issues, in regards to, certainly, groundwater issues.

12 We knew that we were going to be holding a hearing that the groundwater  
13 permit and possibly others. We're going to have people in the facility after it  
14 operates to do some minor checking on radiation controls that work within the  
15 facility.

16 So, we felt we deserved a very strong seat at the table as the process was  
17 going on because of all those reasons and we still somewhat were concerned that  
18 we were denied that fact, denied that status and that the attorney general moved  
19 in that direction to get what we were told is a partial or somewhat of a seat at the  
20 table as an intervenor.

21 As a result of that through other discussions we had with LES what we  
22 came up is what we refer to, obviously, is the agreement that was hammered out

1 over a period of time with a number of people that I mentioned in my remarks.

2 The agreement went as far as we thought we could go to get some of our  
3 questions answered especially about how long the tails would remain in New  
4 Mexico because that was of utmost importance to us. I think, Commissioner, that  
5 in the end we got most of our concerns regarding the tails addressed because the  
6 NRC agreed -- as I mentioned in my remarks, and we were glad for -- to include  
7 this agreement as part of the licensing process. So, that was very important in the  
8 long run.

9 But at the beginning because of so many other hiccups that we were having  
10 with some of the management at the time of LES, the denial of the intervenor  
11 status was another stumbling block not only to the State of New Mexico as far as  
12 providing what we thought was adequate oversight environmentally, but I think in  
13 the long run it was a stumbling block for the company as far as moving forward  
14 because it added to the kind of list of gaps of mistrust and credibility that existed  
15 between the state and LES at the very beginning.

16 COMMISSIONER LYONS: But from what you've said those gaps  
17 are well closed now?

18 MR. CURRY: They have been, especially as the relationship  
19 between the company and the state, those gaps have closed completely, I feel.  
20 But I think it was an unnecessary -- the denial of the state as being an intervenor  
21 still has not been completely explained to me or the governor.

22 COMMISSIONER LYONS: Thank you. I'll look forward to more

1 questions, too, but I'm out of time.

2 CHAIRMAN KLEIN: Commissioner Svinicki?

3 COMMISSIONER SVINICKI: Thank you. I noticed that -- and I want  
4 to apologize to all of our guests at the mics this morning. They have a very  
5 miniscule sweet spot. So, I guess we all have to hit it and then not move. We  
6 struggle with it as well. So, it's not unique to you. But again, I thank you all for  
7 your presentations.

8 I wanted to turn quickly to construction inspection because, Mr. Smith, you  
9 had raised this. This wasn't your term, but it's mine. There is a really intricate  
10 choreography that needs to go on here. Not only does the NRC staff have to have  
11 sufficient information early to identify for the applicant those points in time and  
12 those processes and items they'll want to inspect. The applicant has to be able to  
13 predict in advance with great fidelity when that will occur on site and then hold it's  
14 construction process to that schedule with some adjustment.

15 I appreciate that you said it went well. I can't help but think -- and I know  
16 this will be an item for Commission attention -- if NRC should find itself that there  
17 are greater level of regulated construction activities going on at the same time then  
18 was when you began this process that choreography will get even more difficult.

19 I know all of our program offices and our Regions are focused on having  
20 construction inspection choreographed not only for individual applicants, but  
21 they're going to have to look across applicants. I think that will be really  
22 challenging. I appreciate that you acknowledge both the complexities of it and that

1 it went well in your case, which I think is good to have at least started off learning  
2 those lessons and hopefully we can apply that as the pace of activities might grow  
3 in the future.

4 I had wanted to talk -- we talked about security clearances and the time that  
5 it takes to do that is something that for all of us who've moved through the federal  
6 system for any period of time, I'm beginning to think somewhat we've all become  
7 reconciled that it is this immovable thing that just takes a really long time.

8 You all acknowledge the issue in that you worked with the staff and worked  
9 through that as best you could. Were there any discrete improvements that any of  
10 you thought you could put forward or recommendations of the way or are we all  
11 kind of reconciled to it just takes a really long time?

12 MR. SMITH: I'll try. The improvement that I saw was when -- what  
13 made it difficult was our applications going to the NRC, but they're actually  
14 performed through the Department of Energy. One agency pushing another does  
15 not always work well.

16 As we became more desperate that communication between the NRC and  
17 the Department of Energy got a lot better and they became much more adept at  
18 saying this one is more important than that one.

19 Prior to that it was just like a train; whatever car was next in line was the  
20 one where the attention was focused and that was problematic to us because  
21 operators had to go to Almelo need to be classified so they could get their training.  
22 They got a lot better at doing that and that was the result of better communication



1 between the NRC and the Department of Energy because we were a little bit of an  
2 odd man out.

3 The third one in the chain just the one initiating it. I think more direct  
4 communication might have been helpful between ourselves and the people  
5 actually doing the clearance process.

6 COMMISSIONER SVINICKI: Okay. I appreciate that. Did anyone  
7 else have any perspectives on that? Okay.

8 Another -- again, since we have you gathered and you all have your  
9 different points and different perspectives on this process. Secretary Curry, I'd  
10 really like to solicit your views as well. You talked about community outreach and  
11 NRC, of course, holds public meetings in these communities to explain its  
12 licensing process, although you have your own separate outreach that you do.

13 I'm guessing many of you have been present at NRC's meetings in  
14 communities where you're constructing or in New Mexico. In observing that is  
15 there any advice that you would give us in terms of how we try to explain to the  
16 public our licensing processes or anything that we could do better? Do you think  
17 we're doing the right amount of outreach to the public?

18 MS. ORR: Well, I guess I'd just like to respond once. We have had  
19 one public meeting and it was my first. I think the thing I would say is that it was  
20 very effective. We had a number of citizens who were in the meeting who had no  
21 great understanding of what the NRC's role was in the process and how the  
22 process worked.

1           It was laid out very clearly so that a schoolteacher, a mother, a construction  
2 worker -- they all were in the room and everyone understood it very well. I think  
3 that the staff came across not only credible, but also were able to describe their  
4 training, their experiences that helped a lot as well for people to understand not  
5 only the role that the NRC would play, but the effectiveness of that role in the  
6 effort.

7           I thought it was a very effective meeting and heard a lot from the public in  
8 the room about how impressed they were with the amount of information that was  
9 shared and the way it was shared so that it was understandable and people could  
10 go away knowing what was going on. I thought it was effective.

11           COMMISSIONER SVINICKI: I appreciate that. Secretary Curry, you  
12 mentioned as a permitting agency you conduct your own meetings to explain your  
13 processes. I don't know if you attended any of the NRC meetings or had a  
14 perspective on compare and contrast or things we could do better.

15           MR. CURRY: Commissioner, I attended one -- actually, two NRC  
16 meetings and I was aware of our hearings that we held. We held a meeting  
17 regarding our groundwater discharge permit and then because of the meeting we  
18 felt compelled to hold an official hearing on the groundwater discharge permit.

19           We look at the public process as a way of not only serving the public in their  
20 concerns, which is utmost in our state, especially when it comes to dealing with  
21 facilities that we dealt with in the past with DOE, but we also see a good public  
22 hearing or a good public meeting that is completely open and allows a lot of

1 interaction among people that sometimes doesn't fall in the true terms of testimony  
2 and cross-examination, we find those to be essential to the sustainability of any  
3 particular entity that's going to work there. We believe that if you find any part of  
4 the public that feels they've been shut out of the process then that part of the  
5 public in the long run will not be helpful to the sustainability of the entity.

6 To put it in a specific example we have -- as all communities and all states  
7 have -- we have a lot of people who are concerned about what's going on in their  
8 community, but they don't have technical standing.

9 We believe that just because they don't have technical standing does not  
10 mean that their opinions and their beliefs and their feelings don't have a place in  
11 the true outcome of the process. They cannot be disqualified simply because they  
12 don't have technical standing.

13 I think that is one of the things that we strive to do in New Mexico is to give  
14 everybody a voice, keeping in mind that there are technical aspects to any permit  
15 and obviously technical aspects to any license, but people should not be  
16 disqualified because they are unable to comment on the technicalities.

17 COMMISSIONER SVINICKI: Thank you. Thank you, Mr. Chairman.

18 MR. KILLAR: If I could just take a second to respond to that as well.  
19 I think the meetings you've conducted have been very successful. I think the one  
20 thing we'd like to see you stress more is the open house after the meeting  
21 because what happens is during the presentation you're presenting there to the  
22 lodge, auditorium, gym, whatever it is.

1           But there's always that guy in the crowd that says, "I want to talk to them  
2 personally." And he may ask a question during the session, but he wants to get a  
3 personal relationship with the NRC to feel right about his answer to the question. I  
4 think the open house after is very effective and very meaningful for those people  
5 who really want to understand the process because they will take the time to  
6 answer the question and have the access to the NRC individual to answer those  
7 questions. That's very important. So, I would encourage you to keep the open  
8 houses after the general presentations.

9           COMMISSIONER SVINICKI: Thank you.

10           CHAIRMAN KLEIN: I've got a general question for all of the  
11 enrichment operators. In terms of your talent pool, both for construction and  
12 operation, any pinch points coming at you?

13           MR. SMITH: Nuclear criticality people are few and far between in  
14 our industry. Very specialized talent. That's been a difficult spot for us. The hiring  
15 of operators and maintenance personnel have not been difficult. Lots of nuclear  
16 Navy people. We have a number of applicants from the nuclear power industry.

17           We are worried more than anything about engineering resources as we  
18 ramp up into construction. Those resources are already limited. They will become  
19 even more limited and the bidding war that could occur.

20           CHAIRMAN KLEIN: How about for USEC?

21           MR. SEWELL: One of our challenges has been ensuring we have  
22 sufficient quality assurance programs in place and personnel who can implement

1 those programs and drilling down the procedures and processes necessary to  
2 ensure the quality to meet your standards and ours.

3 We find that we have to be diligent in that process through internal and  
4 independent assessments and then ensuring that indeed the suppliers, the sub  
5 suppliers even, have quality assurance programs that meet the standards and the  
6 specifications that help us to fulfill our license application.

7 And so, it's a nuclear culture in the enrichment business in particular that  
8 has not been well engendered throughout time and now we're starting to build  
9 enrichment plants in the United States and we're finding that we have to train  
10 these resources and ensure that we have top-quality people who can put those  
11 programs in place and those procedures in place.

12 That has been a real challenge for us and we feel that we've been  
13 successful only because we've been so diligent and we've tried so very hard to  
14 make sure before we put something in place in terms of manufacturing, in terms of  
15 supply, that the sufficient quality assurance programs are in place and the audits  
16 have been done to -- I'll say -- assure that what we get is high quality and fully  
17 meets the specifications necessary.

18 CHAIRMAN KLEIN: Tammy?

19 MS. ORR: Well, at this stage of our process what we've found is  
20 we're really heavy on technology. Our licensing efforts we've been able to staff  
21 with very little difficulty, but in technology space we have some very unique  
22 technologies. And so, for those very special skill sets there is a limited pool.

1           We find ourselves rather than being able to utilize resources that are  
2 already clear we find ourselves having to process those technologists ourselves.  
3 So, we're creating our own pool in that sense.

4           MR. SHAKIR: In our stage of the project we are adequately staffed  
5 and not having any difficulties finding the right technical mix to achieve the next  
6 stage, if you will, of design. One of the things that we focused on was the  
7 availability of resources in our siting efforts.

8           We wanted to make sure we go to a community that already had a pool of  
9 talent that we can draw from to staff the operation ultimately of the facilities. So, I  
10 think we were successful in finding that location in Idaho because of the INL  
11 familiarity, if you will, with nuclear.

12           It's still going to be a challenge for us to find the subcontracting resources  
13 that have the quality assurance, the culture of compliance that we would be  
14 seeking and you would be looking for to execute the project.

15           One thing we're committed to do is to get a head start. We're not going to  
16 wait on the design of the facility. We're going to launch forward so that we have  
17 as much detail and as good quality design and specifications in place.

18           We're also going to get out ahead and identify contractors, interview, really  
19 find and select solid contractors for the bidding process well ahead of the  
20 construction of the facility. At least we view that as a tactic that would help us  
21 when we get to 2011 and we're ready to break ground.

22           CHAIRMAN KLEIN: Thanks. Ron, in terms of activities going, the

1 GE technology is a little bit different. For example, I would think that in Ohio, in  
2 Idaho maybe North Carolina would want to talk to you based on your experiences  
3 in New Mexico. Do you talk your fellow regulators in these other states?

4 MR. CURRY: Mr. Chairman, we do. We have, I'd say -- in these  
5 areas, of course, we have a strong communication through the executive director  
6 of the Rocky Mountain Low-Level Waste Compact, Mr. Leonard Slosky.

7 We have a strong communication network there as far as what's going on  
8 because all of these facilities if they're going to move any of the tails from one  
9 state to another likely will have to deal with the Compacts at some point in time.  
10 And depending on whether they have a contract within the Compact that they're  
11 operating in makes a lot of difference to the final outcome of their operation.

12 I know it certainly does with LES because it's a long-term question that  
13 even for LES, I don't believe, has been answered. I think Gregory would probably  
14 agree with me. There is the final disposition of what's left and where it goes or  
15 where it stays is not answered yet because just the long-term aspects of the  
16 process.

17 In New Mexico, there was some initial talk about using a DOE option for  
18 disposal into the WIPP Facility in Carlsbad. New Mexico has rejected that out  
19 right and we rejected it outright during the course of the proceedings that the NRC  
20 had and we continue to do that.

21 It's the communication that exists between us and Texas is a good  
22 example. We do have that communication regarding this sort of waste tails that

1 exists. We also have it with the State of Colorado and the State of Washington.  
2 We would be glad for whatever community service we can offer, we stand ready.

3 CHAIRMAN KLEIN: Thanks. Commissioner Jaczko?

4 COMMISSIONER JACZKO: On that -- back to the issue of disposal  
5 of DU. It raises an issue I think one of you touched upon which is  
6 decommissioning and the process of coming up with estimating cost for  
7 decommissioning. This is certainly an area that's made more uncertain because  
8 of the challenges of whether the depleted uranium is a waste, whether it's an  
9 asset, at what point it becomes a waste and what form it's in and what would  
10 ultimately happen with it.

11 So, I'm wondering if any of you have suggestions for us about ways that we  
12 might be able to improve our guidance, improve our processes so that we can do  
13 a better job of estimating what these ultimate costs will be for decommissioning  
14 and/or a better process to be able to estimate that more effectively and reliably.

15 MR. SMITH: You might go look at what we've done in Europe. We  
16 have decommissioned buildings and built new buildings where the old buildings  
17 were. So, it's not new. We've done it several times at both our Capenhurst  
18 facility. We're doing it right now at our facility at Almelo. The technology is there,  
19 the information is there and the cost associated with doing it as well.

20 COMMISSIONER JACZKO: Were those enrichment facilities?

21 MR. SMITH: Enrichment facilities that have run for 20 to 30 years.

22 COMMISSIONER JACZKO: What happened, then, with the tails?



1 MR. SMITH: There are no tails associated with the  
2 decommissioning of the plant. The tails are in cylinders stored in those areas. A  
3 lot of our tails have been sold as an asset to other companies.

4 COMMISSIONER JACZKO: So, the long-term disposition of the tails  
5 has not yet been resolved?

6 MR. SMITH: There's a 100-year option that's in play in the  
7 Netherlands where they've built a low-level radwaste facility where both for -- and  
8 a high-level radwaste facility -- for the power plant in the Netherlands as well as  
9 our tails and the low-level radwaste from the nuclear power plant is stored there  
10 for 100 years. That's not the ultimate location, but that's the option that has been  
11 chosen in the Netherlands.

12 COMMISSIONER JACZKO: I think that perhaps one of the  
13 challenges we have is, I think, we haven't fully resolved exactly how much the  
14 ultimate disposition of the tails is a part of decommissioning or not. As I use that  
15 term I meant it more broadly than the actual deconstruction of the buildings, I  
16 guess, which is something, of course, we have lots of experience with here on the  
17 power reactor side and I think have a good understanding. Our challenges are  
18 perhaps always more in the longer term disposition of waste than in the short.

19 MR. CURRY: Regarding the long-term disposition and I'll use the  
20 New Mexico Los Alamos National Laboratory as an example. I'm not saying this is  
21 the answer, but it's something that we've talked about. When Los Alamos as a  
22 National Laboratory has gone about restructuring its mission or changing it's

1 mission you almost find yourself looking at an environmental impact statement to  
2 proceed in that way.

3 I'm not sure that that wouldn't be a bad idea when you're looking at this and  
4 I would say that it should not be necessarily a generic one. It should be site  
5 specific depending on the limits of what you're going to do. Just a suggestion.

6 I know the Department of Energy uses that tool and it provides a lot of  
7 community input, obviously, but it also gives the entities involved -- if you use  
8 something like that process, it gives them more standing, I think, in the community.

9 COMMISSIONER JACZKO: I appreciate that. I think those are all  
10 interesting suggestions that we can continue to look at as we go forward.

11 Turning to a different subject, I think almost all of you have talked about the  
12 need for new facilities and enrichment. I'm wondering how much of that is  
13 dependent upon -- the basis for that is with the expected operation of existing  
14 facilities or how much of that incorporates new facilities and how many in the  
15 assumptions or is there a need for new enrichment regardless of whether not we  
16 have new facilities, I guess perhaps is the clearer way I would ask that question?

17 MR. SHAKIR: Since I made a lot of those comments I'd like to take  
18 that. I can only speak about AREVA's plans. Our business plan was based on the  
19 existing fleet of reactors and did not contemplate more than three to five gigawatts  
20 of new nuclear in the future. So, there's a clear case based on the existing  
21 operating fleet for additional domestic capacity.

22 Again, just to go back to the stats that I shared with you this morning a very

1 small percentage of that need that exists today is served by domestic enrichment.  
2 A lot of it is served by the HEU agreement, as I mentioned, as well as imports. So,  
3 the HEU agreement will expire in 2013, so there is a significant shortfall. That's  
4 about 50% of the enrichment need and that's why a lot of the company's -- or all of  
5 the companies that are present here are moving forward with their plans.

6 Not to mention the increase in demand over time as a result of the lower tail  
7 assays. So, less uranium use and more enrichment is needed. That has added a  
8 significant amount to the demand. I don't have the statistics on top of my head,  
9 but we expect about 15 million SWUs in terms of demand in the U.S. by 2020.

10 And so, when you add up the capacities of all the facilities that are  
11 contemplated here there's still some shortage to get to the 15 million SWUs of  
12 domestic need not accounting for any export of enrichment produced here in the  
13 U.S. to other countries.

14 COMMISSIONER JACZKO: I appreciate that clarification. I think  
15 that's helpful as we look at these issues. I would just say in closing that I did listen  
16 intently to your comments, Mr. Curry, about the participation and I do think those  
17 are some insights that I think would help us sometimes in our licensing and our  
18 formal processes.

19 I think we have made them in such a way that we do couple the technical  
20 expertise with our entire process and participation in our process. I think that that  
21 may sometimes have a disadvantage of disenfranchising some people who have  
22 simply concerns. I don't know that we have fully figured out a way to incorporate

1 those into our hearing process. I think it's a good suggestion.

2 I was not on the Commission, I believe, at the time when the decisions were  
3 made with regard to your participation, although I may have been involved in parts  
4 of them. But as I understand it there was some aspect of participation and then  
5 some aspect that was denied from the State of New Mexico.

6 I think, perhaps in the future that's something we may want to figure out a  
7 better way to accommodate because certainly, we do have provisions to allow  
8 states and other local government to participate without requiring them to have a  
9 demonstrated contention or issue of contention.

10 And I think in the case of New Mexico what I understand happened is that  
11 New Mexico including the department participated as an individual party with a  
12 contention and then wanted to be involved in a broader sense and the  
13 Commission didn't allow that. I'm not sure that that's necessarily, as I said, the  
14 right answer and something we should take a look at in the future. I appreciate  
15 that. Thanks.

16 CHAIRMAN KLEIN: Commissioner Lyons?

17 COMMISSIONER LYONS: Ron, you mentioned that you either are  
18 or have been President of the Rocky Mountain Low-Level Compact. I've been  
19 very interested in the operation of the Compact system and how that system has  
20 worked ever since the enabling legislation was set up. Could you talk at all from  
21 your perspective about what is the Rocky Mountain Low-Level Compact doing as  
22 far as coming up with a disposal site?

1                   MR. CURRY: Commissioner Lyons, the Rocky Mountain Low-Level  
2 Compact has -- they're not looking per se for a disposal site for anything that LES  
3 is doing at this point. What the Compact is doing is addressing LES and engaging  
4 LES and telling them in fact what their requirements of the LES -- what the  
5 requirements of the Compact are regarding LES movement of any tails would be  
6 in the future.

7                   What the State of New Mexico is telling LES and LES has agreed to is what  
8 is in the agreement as far as how long those tails can remain in the State of New  
9 Mexico after the tails have in fact become tails.

10                  What the Compact is doing at that point is saying we're going to follow the  
11 requirements of the agreement that has been endorsed by the NRC as far as the  
12 movement of those tails out of the state and that you're going to have to, A, get an  
13 export license out of the State of New Mexico to move those tails that is approved  
14 by the Rocky Mountain Low-Level Waste Compact and then whatever compact  
15 that you choose to move them to; if you move them to a compact state, which is  
16 likely, then you're going to have to get the approval of that particular state to move  
17 them into that state.

18                  We have heard and let me emphasize that we have just only heard this is  
19 that initially LES was talking about the possibility of moving them into the State of  
20 Texas with the possibility of locating them at WCS in the State of Texas.

21                  I don't know if that's still on LES's radar or not, the plans, but obviously if  
22 they did that they would -- the Compacts would require an export license from New

1 Mexico and an import license from the State of Texas. The Compacts do not  
2 determine health risk. They do not determine environmental risk. The Compacts  
3 are only concerned with jurisdictional movement as far as from one compact to the  
4 other.

5 COMMISSIONER LYONS: Can you comment at all about how the Rocky  
6 Mountain Compact is looking to discharge its responsibilities for disposition of  
7 low-level waste within the Compact? And then I'm slightly puzzled as to if, for  
8 example, that Compact chose to have a disposal facility in New Mexico, you're  
9 saying that the LES agreement to remove the waste from Mexico would still take  
10 precedence even if, -- I'm just puzzled as to how this fits together logically. I'm not  
11 quite seeing how it does.

12 MR. CURRY: Commissioner, it's fair to be puzzled. It's a fair  
13 statement and I think that Gregory would probably join some of the puzzlement.

14 I'll give you an example. In the State of Colorado, which is part of the  
15 Rocky Mountain Compact, there is a clean harbor that is located in the western  
16 part of Colorado that is a facility for -- to dispose of low-level waste within the  
17 Compact. The State of Colorado, the State of New Mexico can use that facility if  
18 they so choose. They can also use other facilities that aren't necessarily within the  
19 Compact.

20 But with regard to LES at this point in time we have no disposal facility in  
21 the State of New Mexico that is able to take the tails from LES. If we did, then the  
22 way that we believe the standing is today is that the agreement that has been

1 endorsed by the NRC and the NRC licenses is incorporated into it takes precedent  
2 over anything the Compact would have to offer.

3 It's not to say that the agreement can't be modified. The agreement -- we  
4 consider the agreement to be a living document, if you will. But right now that  
5 agreement within the license is precedent as far as LES is concerned and as far  
6 as we're concerned.

7 The Compact again looks at its jurisdiction as an importer and exporter.  
8 The State of New Mexico has new no place to put these at this time that is within  
9 the Compact requirements and that's the status that we've advised LES and that  
10 they're aware of.

11 COMMISSIONER LYONS: Thank you. And thank you for agreeing  
12 that I can be puzzled.

13 CHAIRMAN KLEIN: Commissioner Svinicki?

14 COMMISSIONER SVINICKI: Thank you. I think I could -- in  
15 listening to all your presentations I could discern what your key messages and  
16 themes are. I think with this few minutes I'd just like to throw it open and say right  
17 now you have the Commission's ear and probably a good number of the NRC  
18 staffs' ears as well.

19 If you were to put forward or nominate one key issue that you would like us  
20 to please keep in mind as these regulated activities move forward, I'd just provide  
21 any of you an opportunity to say please remember the following or keep it in mind  
22 as we move forward either in our application or in our interactions with you. And

1 poor Mr. Smith is at the end, so we'll look to you and start with you.

2 MR. SMITH: I'll go back to the subject we just left and that's tails.

3 It's an important decision. There's a lot of different opinions about it. We are  
4 dealing with a product that once it's been deconverted its less radioactive than  
5 what we dug out of the ground. It deserves rulemaking. It deserves careful  
6 consideration because it impacts our organizations, it impacts our customers. And  
7 I believe that it should go through the rulemaking process so all different opinions  
8 can be considered and you can make the right decision.

9 MR. SEWELL: First, I would say that our experience so far with the  
10 NRC staff to date and I believe in the future will be very positive. What we would  
11 say is that we would ask you to continue the process that you've had with us as a  
12 licensee; that is the independence, the objectivity, the transparency, the open  
13 communication of issues, clear definition of criteria that we need to meet has been  
14 very, very positive.

15 So, I guess what I would most assuredly say is that that process has helped  
16 us tremendously with respect to being able to meet your requirements and meet  
17 them, we hope, in a very thorough way. It has helped to identify what we need to  
18 do in order to meet the needs of having an application and operating under it in a  
19 very effective way.

20 I can't emphasize enough how effective your staff has been in that regard  
21 and how well they've worked with us having conference calls, open  
22 communication, having access to the technical reviewers of each issue so that we



1 could get right down to the root of each interest that the NRC has with respect to  
2 the requirements and the guidelines -- the requirements we have to meet and the  
3 guidelines you provide.

4 So, I think that transparency openness is just tremendous and I would just  
5 encourage you to continue along those lines. I think we'll all be very successful in  
6 that regard.

7 MS. ORR: It's unfortunate I didn't get to speak before him because I  
8 echo a lot of what he said. I think that the heart of what we've learned so far is  
9 that it's really about the quality and the effectiveness of not only our people but  
10 your people as well, your staff.

11 There was a discussion just a little while ago about how things are going to  
12 get really interesting when we have multiple enrichment facilities being not only  
13 licensed, but also constructed and then operating.

14 I would say the support for your staff to continue to have ample staff to  
15 meet the needs of these licensing and operational processes and to have some  
16 type of a dialogue in a forum so that as they identify areas for opportunities for  
17 improvement or challenges or hurdles that the Commission can support them in  
18 resolving those issues so that they can continue to be as effective as they have  
19 been so far through this process.

20 MR. SHAKIR: Given where we are in our process where we just  
21 submitted a license application I echo the same sentiments here. I think the  
22 interactions with the NRC have been very satisfactory. The staff works very well.

1 You have a terrific team and I think we're satisfied with the interactions we've had  
2 with them over the last 12 months.

3 I think it's important, as I made earlier in my remarks, that the Commission  
4 through the hearing order makes some of the same determinations that were  
5 made in the previous orders, to provide a framework for the staff to work with, to  
6 define the timeline. I think it was very critical to provide the discipline for the staff  
7 and for the board and like I said, a framework for them to work with. We look for  
8 that and that would be very important for us.

9 I don't want to leave this discussion with an impression, at least with the  
10 public, that there is a real issue with the disposition of DU because the  
11 Commission has made a determination in the previous two applications LES and  
12 USEC on this issue. The cost estimation that we have submitted is detailed and is  
13 as detailed as LES and USEC has provided. It came from the Department of  
14 Energy so they formed the basis for the cost of dispositioning the tails from a  
15 decommissioned facility and the NRC has ruled on that.

16 The same thing with the waste or for that matter an asset. There was a  
17 decision by the NRC on those two applications. We want to certainly look at it and  
18 the NRC should look at it and we'll be happy to provide input on that.

19 We support a rulemaking on this if there are any additional questions. But  
20 from an applicant standpoint we hope to see a similar approach taken and a  
21 similar decision taken on our application as was taken on the previous two  
22 applications.

1                   MR. KILLAR: I'll echo a little bit of what you've already heard.  
2   Certainly, the depleted uranium, the disposition of it is very important to  
3   Commissioner Lyons' concern. One of the things we've heard from a number of  
4   the low-level waste sites is that they're reluctant to take any additional depleted  
5   uranium until the NRC makes the determination of how it should be there,  
6   particularly the WCS case.

7                   The State of Texas indicated they've issued a license, but as far as  
8   depleted uranium it's subject to determination by the NRC. So, the NRC moving  
9   forward potentially with rulemaking to address that we certainly would encourage  
10  that and hopefully you will do that.

11                  The second one is an issue that I touched on briefly in the discussion is the  
12  decommissioning rule and the financial assurance. As indicated, that does have a  
13  big impact on the overall cost and things on that line. So, hopefully, you'll address  
14  that.

15                  The third one and it was touched on briefly, but it hasn't been spoken about  
16  specifically, so I just want to point it out and that's just overall safety culture. The  
17  NRC is in the process of developing their policy statement on safety culture. The  
18  industry is very attuned to it.

19                  I think Mr. Smith and Mr. Sewell talked about some the challenges. When  
20  you're bringing new people in getting them acclimated to the safety culture of the  
21  nuclear industry is something that we found somewhat of a challenge, but we find  
22  as the people come on board that they become very well astute, very

1 knowledgeable and willing to work within that safety culture. We do think that it's  
2 important that the NRC move forward with its policy statement on safety culture.

3 MR. CURRY: I will stand on some of my previous remarks and I  
4 would just say that as the State of New Mexico is in some respects has been in  
5 the waste business for a number of years. The exercise that the state went  
6 through in conjunction with the federal government both at the executive and the  
7 legislative level as far as land withdrawal on the WIPP Project was an extensive  
8 experience for the state.

9 That Land Withdrawal Act that was reopened by Congress was a  
10 magnificent act on the basis of what I thought our congressional delegation at the  
11 time with Senator Domenici and Senator Bingaman were able to open up a lot of  
12 doors.

13 I'm not trying to get too far off the subject here, but as Commissioner Lyons  
14 certainly knows is that when you go to look for final disposal of anything and it  
15 deals with anything that has the federal government touch to it, that final disposal  
16 can raise some issues that often times aren't thought of. That's why I referred to  
17 the Land Withdrawal Act as it relates to WIPP in New Mexico because it was a  
18 great effort to be able to use the Land Withdrawal Act to finally resolve some of the  
19 problems that we saw in New Mexico at WIPP as far as making that a final resting  
20 place, if you will, for true waste.

21 So, as the NRC and as the involved parties go forward with the final  
22 disposal perhaps of some sort or some level of depleted uranium my only thought

1 would be is that you have to be aware of all options out there and you also have to  
2 be aware of the fact that it may take greater action to reach that final disposal then  
3 you would have ever thought of at the beginning.

4 COMMISSIONER SVINICKI: Thank you.

5 CHAIRMAN KLEIN: Well, Ron, I think your comment about keeping  
6 all options open is really important. If Tammy is successful I think Greg's  
7 assessment of what's a waste and what's an asset may be redefined and all of the  
8 current tails may go to Tammy's facility if it continues to progress in a positive  
9 fashion. So, I think your comment on what is a waste and what's an asset is going  
10 to change and we do have to keep our options open as the technological  
11 advances continue to occur.

12 We certainly on the reactor side expect reactors to share information  
13 among themselves. How do you all share information among yourselves? Do you  
14 all do a good job? I'm sure you're competitors at some time and friends at others.  
15 Do you all have a good way of communicating things like license applications,  
16 quality control, quality assurance, construction operation? Do you all have a  
17 formal mechanism to share information?

18 MR. SMITH: I have 17 utilities at my project next Wednesday touring  
19 the facility. I have the entire executive team from Entergy there on Thursday. We  
20 probably have 50 visitors from the nuclear power industry a year trying to  
21 understand the challenges associated with the construction project.

22 Also participating in the Industry Supply Conference with the Institute of

1 Nuclear Power. So, we log all of our industry events in through the INPO process.

2 CHAIRMAN KLEIN: My concern was more among the four  
3 participants here.

4 MR. SMITH: That's more difficult.

5 [LAUGHTER]

6 MR. SEWELL: We share completely. If you believe that, then --  
7 actually, we use the organization that Felix is representing here today as a forum  
8 in which we all get together and we discuss similar issues, similar problems, I'll say  
9 issues that affect our industry and how we can come together in terms of  
10 identifying a collaborative approach to resolving issues that may affect us all.

11 So, we use the Nuclear Energy Institute for that purpose. Each of us also  
12 take lessons learned from INPO. Each of us feed into that and I believe use  
13 INPO, I'll say lessons learned and the things that go on in the nuclear industry in  
14 general. And in that way we feed into them and we take away things that we think  
15 that we can use to correct, to improve the procedures and processes that we have  
16 to both build and operate our enrichment facilities.

17 I think those are two, at least -- and the industry forums that occur  
18 throughout the United States and abroad we participate in and so we have the  
19 opportunity to discuss both formally and informally in the hallways, so to speak,  
20 and in speeches that are given to understand where each one of us are coming  
21 from and the particular successes that we're having, our plans, so that it helps  
22 each of us try to not just compete with each other, but to make sure that the

1 industry as a whole meets the needs of nuclear energy and the fuel to nuclear  
2 reactors in the United States and abroad.

3 MS. ORR: I would say without completely relying on the staff to do  
4 this for us they actually do an excellent job of bringing to bear lessons learned and  
5 understandings from the various enrichers as they approach our licensing  
6 activities. So, that's another helpful interface without us actually having to sit at  
7 the table with one another and have the discussion sometimes.

8 MR. SHAKIR: I want to just actually commend Greg because I think  
9 he and his staff have been quite transparent and open to the industry about  
10 lessons learned. We do look at those presentations and we file them and go back  
11 to them and see if there's anything we can learn from them in the early stage of  
12 our project.

13 As I said, we've gone all the way to reviewing everything that's out there  
14 from our predecessors, but there is not a formal channel of cooperation between  
15 us. It's all informal. It's through industry and it's through what's been out there in  
16 the public domain.

17 I hope to see us cooperating more through the NEI as Phil has said. I think  
18 that's the right vehicle for us to come together. We're in one industry. The  
19 success of LES is our success. They're constructing a facility of the same kind as  
20 us, so we certainly wish them the best and want to make sure that they're  
21 succeeding so that we can succeed right after them.

22 MR. KILLAR: I think my presentation was focused on the task force

1 we put together of these four individuals, four individual companies for the  
2 purposes of looking at the generic issues, the common issues whether it's being  
3 regulatory or possibly some other related issues, imports/exports, things on that  
4 line. So, we've established that already.

5         What we have had in operations for a good number of years and I can't  
6 recall how long it's been operating is we have what we call our Facilities  
7 Operations Committee and this is all the major material licensees from Part 70 as  
8 well as some from Part 40.

9         What that does is we have a biweekly conference call and each facility gets  
10 to talk about their experience since the last conference call. Have they had an  
11 NRC inspection? Have they had an upset condition? What were the causes of  
12 that? What were the results of that? What is the licensing action they have in  
13 front of the NRC? How is the licensing action coming? What are the RAIs that the  
14 licensee has seen as a result of that licensing action?

15         So, we have a biweekly call that covers all those aspects. Then we get  
16 together typically on about a quarterly basis where we have a face-to-face meeting  
17 for all the members to come in and talk more directly about those and we've  
18 always invited the NRC to come participate in that. We've been fortunate they  
19 have been able to come down and participate in that and be very candid with us  
20 with some of the concerns they have about our sites which we try to address.

21         Additionally, we set up various task forces similar to this one here to  
22 address a number of issues. We actually have five ongoing task forces right now.



1 We have one on Digital I&C, which I'm sure you're keenly aware of. A number of  
2 these facilities will have quite a bit of Digital I&C in them as you can appreciate, so  
3 we're addressing that.

4 One of the issues under Part 70 is reporting requirements. When does the  
5 clock starts ticking as far as reporting? We're addressing that with a task force.

6 We had a task force which actually completed its work and is now being  
7 implemented and was dealing with the update of the enforcement policy and how  
8 that enforcement policy affects the material licensees, particularly the Part 70  
9 facilities. I think that's a very good success story. It's a great success story.

10 Working with the NRC staff, the concerns that we had with the policy  
11 statement have been generally reflected in the revised policy statement. We think  
12 that's a major step. Now we'd like to see the inspection manual be revised and  
13 incorporate that which is the next step down the line.

14 We have one addressing uranium ingestion and the pathway and analysis  
15 that were done previously were very conservative because they were based on a  
16 lot of technology from back in the '60s and '70s and stuff. We're now looking at  
17 how that's being involved and we've submitted a white paper to the staff on that  
18 issue and they're currently reviewing it.

19 There's a whole lot of things that are going on. I might point out and I think  
20 this is a good venue to point it out in, is particularly the experience that LES is  
21 having in construction. We have taken that to the new reactor operating people  
22 developing new plants and stuff.

1           LES came in and gave them a presentation of how they interact with the  
2 NRC, the issues that they've identified in quality assurance, issues that they've  
3 identified and interactions on inspections during construction. So, the new power  
4 plants are getting that information directly from the people who are experiencing it.

5           We do have a very good network of information. Some of it more formal  
6 than others, but we are sharing experiences and information across the industry.

7           CHAIRMAN KLEIN: Just keep in mind lessons learned are good, but  
8 lessons implemented are even better.

9           MR. SMITH: Chairman Klein, if I could just add one more point. I  
10 think that our industry is maturing in our communication. I saw the same maturing  
11 process in the power industry when we went through deregulation.

12           In the early days of deregulation power plants -- we couldn't talk to each  
13 other especially if they were a competitor. That was because the lawyers and the  
14 salespeople and the finance people were making those rules and decisions. Very  
15 quickly we realized that that was not going to work.

16           As we became -- as those decisions moved to the operation side of the  
17 business those lines of communications opened up. I think you're going to see the  
18 same maturing process in this end of the business.

19           Right now, this is the only guy operating. A lot of those decisions on our  
20 communications are made by lawyers and salespeople. As we move more  
21 towards operation those communication channels are going to open up and will  
22 mature in that process.

1                   CHAIRMAN KLEIN: Good point. All of you obviously are involved  
2 on the enrichment side. Any challenges on UF6 capacity?

3                   MR. SMITH: There's only one place and it's about 100 years old.

4   [LAUGHTER]

5                   CHAIRMAN KLEIN: I take that as a "yes".

6                   MR. SMITH: We've had discussions with them about building  
7 another facility. Obviously, if we're going to expand this industry then it needs to  
8 be -- it will have to be addressed by someone.

9                   CHAIRMAN KLEIN: Thanks. Any additional questions? Well, thank  
10 all of you for your presentations. Ron, thanks for coming in. We appreciate all the  
11 work and as always we need to work on those three important things of  
12 communication, communication and communication. That works both ways. We'll  
13 keep that up. We will adjourn this part of the meeting and we will reconvene here  
14 at 1:30 p.m. Thank you.

15                   (Whereupon, meeting was adjourned.)

16