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13 Official Transcript of the Plenary Session

14 Tuesday, March 9, 2010

15 Speech of Dale E. Klein, Ph.D.

16 Commissioner of the United States

17 Nuclear Regulatory Commission

18

19 Commencing at 1:00 p.m.

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**Commissioner of the United States
Nuclear Regulatory Commission**

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

2 Tuesday, March 9, 2010

3 (1:00 p.m.)

4 MR. SHERON: Welcome back to the
5 afternoon session. I am Brian Sheron, your
6 Director of Nuclear Regulatory Research.

7 I will just repeat what Eric said
8 earlier and that is if you had turned your
9 cell phones on during lunch, please put them
10 on mute or turn them off and that will be
11 great for our afternoon session.

12 It is my honor and pleasure today
13 to introduce Dr. Dale Klein. Dr. Klein was
14 sworn into the U.S. Nuclear Regulatory
15 Commission in July 2006 and served as its
16 Chairman from then until May 13, 2009 and he
17 is currently serving as a Commissioner.

18 Before joining the NRC, Dr. Klein
19 served as assistant to the Secretary of
20 Defense for nuclear and chemical and
21 biological defense programs.

22 Previously Dr. Klein served as the

1 vice chancellor for Special Engineering
2 Programs at the University of Texas system
3 and is a professor in the Nuclear Program
4 within the Department of Nuclear Engineering
5 at the University of Texas at Austin.

6 During his tenure at the university
7 Dr. Klein was director of the Nuclear
8 Engineering Teaching Laboratory, Deputy
9 Director for the Center for Energy Studies
10 and Associate Dean for Research and
11 Administration in the College of Engineering.

12 A native of Missouri, Dr. Klein
13 holds a Bachelor's and a Master's degree in
14 mechanical engineering and a Doctorate in
15 nuclear engineering from the University of
16 Missouri at Columbia.

17 He has published more than 100
18 technical papers and reports and has coedited
19 one book. Please join me in welcoming Dr.

20 Klein.

21 (Applause.)

22 COMMISSIONER KLEIN: Thank you,

1 Brian. It's always a challenge to speak
2 after lunch and it's a double challenge
3 always to speak after Admiral Jim Ellis
4 because he does such a great job.

5 Last year I delivered my third RIC
6 speech as the Chairman of the NRC and now I
7 am delivering my first and last RIC speech as
8 an NRC commissioner.

9 Being Chairman first and then a
10 Commissioner is a very interesting experience
11 that gives me a unique perspective and so I
12 want to share a little bit of that
13 perspective with you today because there are
14 lessons to be learned from the past for how
15 the agency can move forward for the future.

16 My main goal when I became Chairman
17 was to leave the NRC a better place than when
18 I came. The improvements and upgrades we
19 pushed for including modernization of our
20 communications and technology infrastructure
21 aggressively confronting our space needs and
22 strengthening our international programs to

1 promote global nuclear safety have in my
2 opinion made the agency a better regulator
3 and a better employer.

4 To be an outstanding regulator we
5 need good people and a strong safety culture,
6 but we also need the right technology.

7 When I came to the NRC in 2006, the
8 NRC had plenty of good people and a strong
9 safety culture, but it was far behind the
10 times in the technology department.

11 As the chairman indicated earlier,
12 I have been noted for getting the staff
13 BlackBerries and many will tell you when I
14 arrived in 2006 I was rather stunned that we
15 did not have any.

16 There were many on the senior staff
17 who really questioned why we needed them, but
18 now they cannot live without them. In fact,
19 there are probably several senior staff
20 members on their BlackBerries while I am
21 giving this speech!

22 Though not essential for us to meet

1 our statutory mission, adequate technology
2 greatly enhances our ability to fulfill our
3 responsibilities to our licensees and to the
4 public. Better technology is also necessary
5 for us to attract and retain talent.

6 From my experience as a college
7 professor, I can tell you that younger people
8 today do not know what it's like to live
9 without laptops, cell phones, or text
10 messaging. They simply will not come to work
11 at a place that is technologically out of
12 date. The NRC still has a lot of work to do
13 in this area, but we have really made a lot
14 of great progress.

15 Now allow me to look back briefly
16 at a few issues and try to share a few things
17 that I have learned during my time here.

18 In my first month as Chairman one
19 of the major issues we had to deal with was
20 the tritium leakage at the Braidwood plant.

21 In fact, as Chairman designate, I
22 met with a new senator from Illinois named

1 Barack Obama who was considering legislation
2 that he thought would address this issue.

3 I assured him that I understood
4 that this was an important issue needing
5 attention and that the NRC would work with
6 him to address his concerns and the concerns
7 of the public.

8 However, I cautioned that a
9 legislative proposal under consideration
10 might actually undermine the nation's
11 risk-based approach to regulating nuclear
12 safety.

13 One of the first things I did as
14 Chairman was to have the NRC work with the
15 industry to set up a voluntary leakage
16 notification program that for the most part
17 has proven pretty good.

18 I will say on the whole that the
19 nuclear industry, and to some degree the NRC,
20 have not in my view yet fully absorbed or
21 appreciated the need to have a comprehensive
22 and organized communication plan that reaches

1 out to the public to explain what is and what
2 is not a significant safety risk to the
3 public.

4 Recent events have indeed
5 demonstrated that we have much work to do in
6 educating our public and other stakeholders.

7 If nuclear energy is to expand as
8 part of the nation's energy strategy, then
9 public outreach and education is absolutely
10 essential.

11 Another issue that came up early in
12 my chairmanship was the question of the NRC's
13 role and responsibilities within the
14 international community of regulators.

15 I have repeated quite often that we
16 can no longer view nuclear power in the
17 United States strictly as a domestic
18 enterprise and industry, that the NRC had to
19 engage more with our international partners.

20 As it is so often said, but it
21 cannot be overemphasized, "A nuclear accident
22 anywhere is a nuclear everywhere," simply

1 because the public perceives nuclear in a
2 much different way.

3 Aside from maintaining a worldwide
4 standard of nuclear safety and also things
5 beyond doubt that the NRC, our licensees, and
6 our stakeholders have all benefited
7 substantially from our expanded cooperation
8 with other countries.

9 I don't know if Chuck Whitney from
10 Oglethorpe Power is here today, but a few
11 weeks ago he told me that their company sends
12 people all over the world to do component
13 inspections and he said, "Wherever we go the
14 NRC is already there and we are glad to see
15 that."

16 I truly hope the NRC and the U.S.
17 industry continue to be engaged
18 internationally and use our experience and
19 talented people to promote nuclear safety in
20 emerging and expanding nuclear nations.

21 Many of you heard from Jim Ellis
22 from INPO this morning. I was quite proud

1 when he joined me two years ago in jointly
2 presenting the U.S. Report to IAEA's
3 convention on nuclear safety.

4 Being proactive and demonstrating
5 to the world that this industry and
6 regulators can and must share responsibility
7 for safety is one of the most important
8 things we can do to increase public
9 confidence in nuclear safety.

10 Another challenge that will
11 certainly confront the NRC and the nation for
12 some time is a matter of long-term storage of
13 spent fuel especially now that the potential
14 repository at Yucca Mountain appears to be
15 off the table.

16 Of course, in my role as a
17 Commissioner, I cannot comment on the merits
18 of any of the matters currently before the
19 NRC, but I will say in my personal view that
20 I have found the handling of the matter from
21 a national perspective rather unfortunate.

22 The administration's handling of

1 the matter has already led to the filing of
2 several lawsuits and has clouded the path
3 forward in a number of significant ways for
4 years to come.

5 Frankly, I would have preferred if
6 the White House had plainly said that it was
7 implementing a policy change.

8 The President has the right and the
9 responsibility to set policy and clearly an
10 issue of national importance and complexity
11 such as this needs to be periodically
12 reviewed.

13 However, in my opinion, the
14 administration's stated rationale for
15 changing the course does not seem to rest on
16 factual findings and thus does not bolster
17 the credibility of our government to handle
18 this matter competently.

19 Those who would distort the science
20 of Yucca Mountain for political purposes
21 should be reminded that it was one year ago
22 today that the President issued his

1 memorandum on scientific integrity in which
2 he stated, "The public must be able to trust
3 the science and the scientific process in
4 forming public policy decisions."

5 I honestly cannot say if Yucca
6 Mountain could ever have met the stringent
7 tests that would allow it to be licensed, but
8 I do know that under the law that the license
9 determination and the technical evaluation of
10 the science is the NRC's responsibility.

11 Now that one can ask whether the
12 nation is back to square one with regard to
13 an aspect of the fuel cycle the NRC naturally
14 faces the issue of waste confidence.

15 Many of you have spent the last
16 year or two urging the Commission to pass a
17 new waste confidence rule readdressing
18 several of the basic findings supporting this
19 rule, but the current situation demonstrates
20 that those of us who resisted a rush to
21 update the waste confidence findings were
22 correct to proceed with caution.

1 I continue to question whether the
2 Commission would have maintained its public
3 credibility if it had finalized the proposed
4 update without taking the time to consider
5 more fully the reality of the current
6 situation.

7 What many people, even many people
8 in this room, fail to understand is that the
9 matter of the waste confidence rule is a real
10 challenge for us because it is not simply
11 based on the technical judgment of the NRC.

12 Part of the Commission's confidence
13 underlying this rule must be based on events
14 that are beyond the NRC's control and when
15 those events are in flux the Commission has
16 to be very careful in deciding whether it can
17 credibly say, "We have confidence that a
18 repository will be opened on a given date or
19 in a given period of time."

20 Since this is the last time I will
21 have an opportunity like this, I want to take
22 a moment to express my appreciation to a

1 number of people who have helped to make my
2 time at the NRC both productive and
3 enjoyable.

4 Let me thank Luis Reyes.

5 Luis Reyes was the EDO at the time
6 of my appointment and for the first two years
7 of my term, and I don't want to take anything
8 away from our fearless leader Bill Borchardt
9 who is currently serving as the EDO, but Luis
10 was the one who took me around and showed me
11 how the agency works.

12 His professionalism, his friendly
13 demeanor, and his sound advice were
14 invaluable for me as I obtained my NRC sea
15 legs.

16 I wanted to make sure that we had a
17 naval theme for the Admiral!

18 I also want to thank Senators Tom
19 Carper and George Voinivich both of whom have
20 chaired the Clean Air and Nuclear Safety
21 Subcommittee of the Senate Environment and
22 Public Works Committee.

1 No chairman of a federal agency
2 could ask for a fairer, more scrupulous and
3 more supportive leadership in the oversight
4 of their committee than these two senators.

5 I would also like to thank all the
6 members of my staff who have served in my
7 office, and in particular, Paul Dickman, whom
8 I rescued from the Department of Energy to
9 come to the NRC to be my chief of staff.

10 Some of my staff have been with me
11 during my entire tenure at the NRC. Many
12 others were on brief rotations, but all have
13 been dedicated and excellent individuals.

14 I came to the NRC with the theory
15 that my staff and the staff of the NRC are
16 highly competent and can be trusted and I
17 have enough trust in my own judgment that I
18 did not have to surround myself with my
19 people who would simply tell me what I wanted
20 to hear. Fortunately my theory was confirmed
21 by my experience. I thank all of my staff
22 for their service.

1 There are two more people I would
2 like to mention by name. First, and above
3 all, my wife Becky who without her indulgence
4 and actual encouragement this long detour
5 from my academic career would not have
6 occurred.

7 She enabled me to engage in public
8 service first at the Department of Defense
9 and now here at the NRC.

10 The subject of public service is
11 the last thought I would like to leave you
12 with which brings me to my second name, Ed
13 McGaffigan.

14 Of all the people that I have met
15 here at the NRC, he was the one who inspired
16 me the most regarding public service. I
17 refer to him a lot when I talk about public
18 service just as I recently did at the Federal
19 Engineer of the Year Awards.

20 Ed embodied the qualities of an
21 ideal public servant, intellectual rigor,
22 hard work and a fearless devotion to truth.

1 We often disregarded and we
2 oftentimes disagreed on these issues, but we
3 remained friends and colleagues because we
4 both thought that collegiality at the
5 Commission was important for helping the
6 agency to fulfill its mission.

7 One of my proudest accomplishments
8 here at the NRC was to help establish the
9 McGaffigan Award. This award honors an
10 employee who demonstrates an extraordinary
11 commitment to public service and exemplifies
12 the commitment to public service and
13 integrity to professional dedication and
14 moral courage that Commissioner McGaffigan
15 exhibited.

16 I will not be participating in the
17 selecting future award winners since I will
18 soon be leaving the agency, but I do know
19 that there will be no shortage of people to
20 choose from.

21 Nearly everyone in this room,
22 licensees, vendors, construction engineers,

1 and stakeholders, helped to contribute to
2 nuclear safety in some way, but I think those
3 of us who have chosen public service whether
4 as an appointee for several years as I did or
5 for a career as many of you are doing are
6 fulfilling that incredibly important goal in
7 a special way.

8 I can certainly say that I felt
9 very honored to have worked alongside so many
10 fine men and women, the thousands of
11 outstanding public servants who make up what
12 I believe is the best regulatory body in the
13 world. My final comments are simple.

14 To the staff: Do not become
15 complacent, keep working to make this the
16 best place to work in government.

17 To the industry: Keep working to
18 exceed requirements and achieve excellence.

19 To our international partners:
20 Keep working with us to achieve high
21 consistent standards that make the world a
22 better and a safer place.

1 Thank you very much.

2 (Applause.)

3 MR. SHERON: I think you dazzled
4 them because I have not received any
5 questions.

6 COMMISSIONER KLEIN: That's fine.
7 We can save them for Commissioner Svinicki.

8 MR. SHERON: No, actually, I have a
9 couple of questions for you!

10 COMMISSIONER KLEIN: What a
11 surprise!

12 MR. SHERON: Dr. Klein may remember
13 that I became the office director just a
14 little bit before he became the Chairman and
15 I remember my first periodic meeting with him
16 and when I went in, he asked me, "What are
17 you doing about long term research?"

18 I said, "Well, we budget three
19 years in advance," and he said, "No, no, that
20 is not what I am talking about. What are you
21 doing to look at where we want to be five or
22 ten years from now?"

1 I kind of said nothing, but we took
2 it to heart and we have put together a
3 long-term research plan.

4 What I wanted to ask Dr. Klein was
5 when you took the job one of the first things
6 you told me was that the Commission's job was
7 to be visionary, and that's what you told me
8 at that time was to be consistent and to plan
9 for where the Commission ought to be five to
10 ten years from now.

11 First off, is the Commission now
12 where you want it to be when you first came
13 here and then where do you think the NRC
14 should be five to ten years from now?

15 COMMISSIONER KLEIN: One of the
16 things that surprised me when I first came to
17 the NRC was a work ethic that I saw with our
18 staff.

19 I was used to working at the
20 Pentagon which is really a 24/7 operation, so
21 high-paced high activity and I was surprised
22 when I came in on my normal 6:00 to 6:30 in

1 the morning that there were already a lot of
2 cars coming in.

3 I found out then that we had a very
4 highly motivated highly qualified and highly
5 competent staff, but I also learned later
6 that sometime people come early to get a
7 parking spot!

8 One of the things that I have been
9 impressed with the NRC is its ability to make
10 decisions.

11 We have all heard that infamous
12 story that we have not received an
13 application for a new power plant for about
14 three decades, but that does not mean that
15 the staff had not been making decisions.

16 They have made decisions on power
17 upgrades and license renewals, so we do have
18 a culture of being able to make decisions,
19 and so from my standpoint the NRC is a highly
20 technically qualified regulatory body that is
21 able to make decisions.

22 Where we need to be five to ten

1 years out will be in an area that will cause
2 us some challenges, and that is, we're a
3 light water regulatory body on the power side
4 as we clearly handle a lot of nuclear
5 materials as Bill Borchardt had mentioned the
6 fact that do have two sides of the agency.

7 We have the power side and then we
8 have the nuclear materials side. We tend to
9 be dominated a lot by the power side, but on
10 the other hand we have also had challenges on
11 the material side, so both are important and
12 both are something that we need to move
13 forward in.

14 I will give my comments on the
15 power side primarily not because that's more
16 important than the other, but we do need to
17 move away from just being a light water
18 agency.

19 There will be some technologists
20 who will be coming down for small reactors
21 that may not be light water reactors. We
22 also need to start looking at the possibility

1 if we do end up having recycling in the
2 United States, then we need to start building
3 the technical capabilities so that our
4 regulatory body can make those decisions and
5 let the applicants know what our requirements
6 are.

7 The next five or ten years will be
8 an area where we need to keep doing well on
9 what we are doing on the light water side,
10 but we certainly need to start expanding in
11 other areas so that we build that technical
12 expertise to be good regulators in other
13 areas as well.

14 MR. SHERON: One question here is,
15 "Please comment on what you will tell your
16 students about the future of nuclear energy
17 and technology. How will you prepare them
18 for a future in nuclear?"

19 COMMISSIONER KLEIN: I will tell
20 them to consider the NRC as a place to work.

21 One of the things, and certainly it
22 was in my case is that I would not have

1 considered coming to work with a regulatory
2 body when I graduated from college. I
3 wouldn't have thought about that necessarily
4 as one of my factors of looking for
5 employment.

6 What I would tell my students is,
7 "Nuclear has a bright future to it." When
8 you look at the world, the world is going to
9 go nuclear whether the United States does or
10 not.

11 I talk to my colleague Andre
12 LaCoste occasionally and he comments on the
13 fact in talking about this that a nuclear
14 renaissance adds relevance to the NRC and to
15 the United States, but not to a lot of other
16 countries that did not stop building nuclear
17 plants.

18 For us this revitalization has
19 increased a lot of attention to things
20 nuclear and it really does help when the
21 President of the United States mentions it in
22 the State of the Union speeches as both

1 President Bush and President Obama have done
2 because it does bring out awareness that
3 nuclear does have a role to play.

4 As a regulator we cannot be a
5 proponent, but all of us have looked at the
6 numbers and if we're going to do anything on
7 global climate change with CO2 emissions, it
8 will have to include nuclear, not only in the
9 U.S., but worldwide.

10 What I would tell my students is
11 that nuclear is bright and the NRC is one of
12 the places they should look to for
13 employment.

14 MR. SHERON: What do you think of
15 the principal areas that the industry should
16 focus on in the next five years?

17 COMMISSIONER KLEIN: What the
18 industry needs to continue to do, and as Jim
19 Ellis reminds us, is to focus on excellence.

20 Clearly, there is in my view a
21 correlation between safety and plant
22 operations. Good plants operate safely.

1 The infamous "C" word that has been
2 mentioned a lot is that industry cannot
3 become complacent. Just because you are at
4 the top does not mean that you will stay
5 there.

6 If you look at the microelectronics
7 industry, if you stay constant, people are
8 going to just shoot past you and the same
9 holds true for the nuclear industry. You
10 always need to improve and get better.

11 For us, high-quality applications
12 that are complete will take less time for us
13 to review applications that are of high
14 quality and complete.

15 The industry will look forward to
16 this expansion building of new plants, but
17 the most important thing the nuclear industry
18 can do in the next five to ten years is for
19 those plants that are under construction and
20 being built they have to be built on time on
21 schedule.

22 If there are significant cost

1 overruns and delays in those plants it will
2 definitely have an impact on future plants.

3 In terms of their day-to-day
4 activities as we oftentimes said those 104
5 plants have to operate safely because if they
6 do not numbers 105 and 106 will be very
7 difficult.

8 MR. SHERON: What do you see as the
9 biggest obstacle to reprocessing in this
10 country?

11 COMMISSIONER KLEIN: The biggest
12 obstacle for me in terms of reprocessing,
13 again, as a regulator, we do not promote nor
14 oppose reprocessing.

15 If an applicant comes in with
16 recycling, the NRC would look at that, but
17 recycling is one of those things where there
18 are a lot of myths that are out there on
19 recycling.

20 The nonproliferation crowd does a
21 disservice when they try to do a lot of
22 correlations where if you recycle you're

1 automatically going to have a nuclear weapon
2 or new weapon material. That is simply not
3 the case.

4 There has never been a nuclear
5 weapon made from high-burnup commercial
6 recycled spent fuel and that message needs to
7 be told over and over again so that we can
8 continue to look at that issue in a broad and
9 technically accurate perspective.

10 The fundamental challenge we have
11 in the US on recycling is that we tend as a
12 nation to look on single issues for which we
13 make decisions.

14 People first said, "We have to
15 recycle because of fuel availability."

16 Well, there's a lot of uranium
17 around, so it may not be on fuel costs alone.
18 If we took an integrated approach, a
19 systematic approach to recycling we will find
20 for a variety of factors recycling does make
21 sense.

22 That is not the role for the

1 regulator to do, but as a nation we need to
2 do a systematic look at recycling and not
3 just single discriminators for either fuel
4 availability and/or one or two repositories.
5 We need to look at really a systematic and a
6 long term approach.

7 MR. SHERON: I don't have any other
8 questions.

9 COMMISSIONER KLEIN: Well, that is
10 fine because I know Commissioner Svinicki is
11 dying to give her remarks. Thank you very
12 much.

13 For the NRC employees that are
14 here, keep doing what you do well and for the
15 industry keep working hard to keep everything
16 running safe. It is really important for our
17 international partners to continue to work
18 with us. So thank you for what you do for
19 making nuclear power safe and secure.

20 (Applause.)

21 * * * * *

22