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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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RIC 2014

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26th ANNUAL REGULATORY INFORMATION CONFERENCE

COMMISSIONER WILLIAM D. MAGWOOD PLENARY

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WEDNESDAY

MARCH 12, 2014

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The Regulatory Information Conference
convened in the Grand Ballroom of the Marriott Bethesda
North, 5701 Marinelli Road, Rockville, Maryland, at
8:30 a.m., Eric Leeds, NRR Director, moderator.

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

8:29 A.M.

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2
3 MR. LEEDS: Good morning and welcome back
4 to the 26th Annual Regulatory Information Conference.
5 I hope you all enjoyed yesterday's events and technical
6 sessions and are ready for another full day.

7 For those of you who were not here
8 yesterday, again my name is Eric Leeds. I'm the
9 Director of the Office of Nuclear Reactor Regulation
10 here at the U.S. Nuclear Regulatory Commission.

11 This morning's plenary sessions feature
12 Commissioners William Magwood and William Ostendorff.
13 So to start off this morning's session, we'll get right
14 to it. And I'd like to introduce you to Commissioner
15 William Magwood.

16 The Honorable William D. Magwood IV was
17 sworn in as a Commissioner on April 1, 2010. Mr.
18 Magwood has had a distinguished career in the nuclear
19 field and in public service. He was the
20 longest-serving head of the United States Civilian
21 Nuclear Technology Program, serving two presidents and
22 five Secretaries of Energy. Mr. Magwood served as the
23 Director of Nuclear Energy with the U.S. Department of
24 Energy for seven years where he was the senior nuclear
25 technology official in the U.S. Government. He

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1 oversaw the restoration of the Federal Nuclear
2 Technology Program and led the creation of Nuclear
3 Power 2010 General IV and other innovative initiatives,
4 including efforts that helped reverse the decline in
5 American nuclear technology education.

6 Before his tenure in the U.S. Government,
7 Mr. Magwood managed electric utility research and
8 nuclear policy programs at the Edison Electric
9 Institute in Washington, D.C. He also served as a
10 scientist at Westinghouse Electric Corporation in
11 Pittsburgh, Pennsylvania.

12 Since joining the NRC, Mr. Magwood has been
13 a strong advocate for both U.S. science and technology
14 education and robust international cooperation. He
15 has sought to assure transparency and to improve the
16 Agency's openness to public participation. As an NRC
17 Commissioner, Mr. Magwood has been a vigorous defender
18 of the NRC's regulatory independence and adherence to
19 the principle that regulation should be based firmly
20 on scientific and technical facts.

21 Please join me in welcoming Commissioner
22 Magwood.

23 (Applause.)

24 COMMISSIONER MAGWOOD: Good morning.
25 It's a pleasure to be here this morning and thank Eric

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1 for his work. Give us a moment here, we're doing an
2 adjustment or not. Is that the highest it goes?
3 That's too tall.

4 MR. LEEDS: Technology.

5 COMMISSIONER MAGWOOD: Technology. Yes,
6 due to technical difficulties this speech will be
7 postponed.

8 Again, thank you, Eric, for the
9 introduction and I thank all of you for being here
10 today.

11 Every time I come to the RIC, I'm so
12 impressed with the quality of the event and the quality
13 of the presentations and discussions. It really is a
14 remarkable conference. So I thank the conference
15 staff, the people who worked so hard to put this
16 together over the last year. And I thank all of you
17 for being here. It's been a pleasure to see so many
18 people that I don't normally see on a day-to-day basis.
19 It was a pleasure to see so many members of the ACRS
20 here today, members of the ASLB. I saw members of our
21 Advisory Committee on Medical Uses of Isotopes, so lots
22 of people are here that support the work of the
23 Commission and we appreciate your participation.

24 I would like to take a moment to also thank
25 my personal staff. They're all lined up here today,

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1 my cheering section over here. Patty Jimenez, Renee
2 Taylor, Rob Krsek, Molly Bupp, our newest addition,
3 Janelle Jessie, who has joined very recently who
4 replaced Rebecca Tadesse. I don't know if Rebecca is
5 in the audience today, but she somehow got a job on the
6 staff after beating the hell out of the staff for the
7 last four years. I don't know how that happened, but
8 she did manage to land a position, so good luck to her.

9 Finally, Patty Bubar. Many of you know
10 Patty Bubar my chief of staff. She makes my job so much
11 easier and she's been sort of a constant in our office
12 to make things work very well and never forgets a
13 birthday on top of that. So Patty, thank you very much.

14 Now as you already heard, it's been a very
15 eventful year at the NRC -- actually, Eric, first slide.
16 Do we have a clicker? Did you put the slides in?

17 MR. LEEDS: No, sir.

18 (Laughter.)

19 COMMISSIONER MAGWOOD: Where's Patty?

20 (Laughter.)

21 COMMISSIONER MAGWOOD: Actually, I don't
22 have any slides this year. Usually I have some.

23 (Laughter and applause.)

24 But notice how calm Eric was during the
25 crisis.

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1 (Laughter.)

2 As you've heard, it's been a very busy
3 year. 2013 was a very productive year for the Agency.
4 The Commission, among other things, developed a new
5 rule on venting strategies or instructed staff to
6 develop a new rule on venting strategies. We developed
7 a new rule on risk informing low level waste disposal.
8 We launched a new policy statement regarding our
9 relationships with tribal governments. And we
10 responded comprehensively to court decisions related
11 to high-level waste. So it was a very busy year.

12 Also in the last year, as you may know, the
13 Commission appointed a new EDO, Mark Satorius, and also
14 a new general counsel, Margie Doane. I think both of
15 them are here today. Fortunately, neither yet has
16 retired to Florida so I guess it's not as challenging
17 as they were concerned. But we still have the same old
18 Eric, Eric is still here and the four years I've been
19 here, Eric has taken this position and guided these
20 plenary discussions along with Brian and they do a
21 fantastic job. So thanks to both Eric and Brian for
22 their work in making this happen.

23 Now for me personally, it's been a very
24 busy year as well. This year, I walked on a basement
25 rebar, the first nuclear power plant to be built in this

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1 country in a generation. At the same time, the very
2 same year, just a few weeks later, I was in the control
3 room of the first nuclear power plant to ever be shut
4 down in this country for purely financial reasons and
5 watching that plant power down for the last time.

6 In the past year, I've also addressed
7 members of Japan's Diet to talk about nuclear safety,
8 how NRC works. I met with the Premiere of Taiwan to
9 talk about regulatory independence and Ministers in
10 Indonesia. I've also met with scores of now hundreds
11 of young people who are either entering or are beginning
12 their careers in nuclear technology, impress upon them
13 the awesome responsibility they're undertaking and
14 members of the nuclear community.

15 So it's been a busy year for all of us. But
16 it's only one of many this Agency has had in the 40 years
17 since the Energy Reorganization was enacted, 40 years
18 ago this coming October as a matter of fact. But as
19 varied as our activities are, they all focus on one
20 single concept, the concept that nuclear safety is the
21 focus of our activities.

22 Nuclear safety is why the NRC was created.
23 Out of the great accomplishments and great
24 controversies of our predecessor, the Atomic Energy
25 Commission, NRC was created to provide clarity of

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1 voice, a singularity of purpose, and an existential
2 focus on nuclear safety. Or to be more precise, to
3 assure that the utilization or production of special
4 nuclear material will be in accord with the common
5 defense and security and will provide adequate
6 protection to the health and safety of the public.

7 As many of you know, this phrase is taken
8 from Section 182 of the Atomic Energy Act of 1954. The
9 legislation provides the core of our authorities. The
10 Atomic Energy Act is a far-reaching comprehensive piece
11 of legislation, but it's still just a haiku compared
12 to what Congress puts together these days. And while
13 it's a creature of the deep denizens of the Cold War,
14 it remains a subject of active conversation today. And
15 despite its many amendments, its foundational
16 principles remain intact.

17 But how we interpret and apply those
18 principles has evolved considerably since the Act was
19 passed 60 years ago this coming August. How the broad
20 authority bestowed by the AEA in the era of Eisenhower
21 are made manifest in the era of Obama reflects many
22 other laws passed by Congress, many court decisions,
23 and decades of regulatory experience and precedent.

24 The NRC itself is built upon thousands of
25 experiences reflected in guidance and procedure. This

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1 is reflective of the inculcated culture of the
2 organization, the evolving work practice of
3 generations and staff and decisions made by the 33
4 people who served as NRC Commissioners. The result is
5 not simply a regulatory framework, but it is a
6 collective wisdom.

7 In the Book of Proverbs it is written that
8 "wisdom hath built her house; she hath hewn out her
9 seven pillars." Our house is based upon the pillars
10 of wisdom that reflect what we have learned and what
11 we continue to learn. Our regulatory framework rests
12 upon the pillars hewn out over the decades. But this
13 wisdom is not static and has never been. Our
14 understanding evolves with experience and the on-going
15 commerce of ideas. Thus, while we apply our current
16 foundations to prepare for the future, our greatest
17 challenge is to allow those pillars to shift without
18 shaking the entire edifice.

19 Among the pillars that support NRC's
20 framework is the understanding that narrow purpose is
21 its own power. Part of the reason NRC was created was
22 to address public concerns about the scope and power
23 of the Atomic Energy Commission. The NRC's role and
24 powers are supported by walls or barriers established
25 over the decades. The resulting framework, while

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1 serves us well, is complex even to those of us living
2 in it every day. For the public, it can be downright
3 confusing.

4 For example, when the average person
5 learns that a radioactive material called tritium is
6 leaking from a nuclear power plant into the
7 groundwater, she probably expects the NRC to take
8 immediate action to stop it and to punish those
9 responsible. So she goes to a public meeting. Then
10 she learns that NRC is a safety regulator. We're not
11 an environmental regulator. Further she learns that
12 the leak is not an indication there's a problem with
13 the safety systems of the plant and also this leak is
14 not a hazard to human health. Therefore, NRC has no
15 basis for action.

16 In other cases, members of the public ask
17 the NRC to weigh in regarding one technology or the
18 other, fuel-cycle technologies predominantly, storage
19 systems. And we even are questioned on whether it's
20 necessary for a utility to even build a nuclear power
21 plant if say wind power is a viable alternative. In
22 such interactions, the bright line we at NRC see between
23 our role as a safety regulator and the role of national
24 energy policy decisions can appear murky and
25 inexplicable to those outside the Agency.

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1 These limitations sometimes appear
2 frustrating, even to many people inside the Agency
3 itself, but they serve an important principle. Vince
4 Lombardi once said "Success demands the singleness of
5 purpose." We take action only when it's relevant to
6 our imperative to protect human health. We leave to
7 Congress the decision whether to restrict or encourage
8 particular technologies. Our singleness of purpose
9 focuses our regulatory scope and it separates
10 regulatory decisions from policy decisions.

11 Another area that causes consternation is
12 an attribute for which NRC is often lauded
13 internationally and that's our rigorous discipline
14 process for making regulatory decisions. When a
15 proposal is made to change our requirements, we first
16 consider whether that change is needed to ensure
17 adequate protection of public health and safety or to
18 assure in accord with common defense and security.
19 This has occurred in the past and we have taken action
20 along those lines such as with the terrorist attacks
21 in 2001.

22 But these developments are thankfully
23 quite rare and unusual. It's far more common that the
24 proposed changes do not address the merits or challenge
25 the adequate protection definition. Instead, it's far

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1 more common that such changes provide more incremental
2 benefits. If a proposed change is not in response to
3 an issue of adequate protection or does not raise
4 unaddressed concerns of common defense and security,
5 NRC then engages in what we call a "backfit" analysis.
6 We look at these issues in terms of how the safety
7 benefits compared to the resources required to
8 implement them. We do this as quantitatively as
9 practical, but there is considerable judgment and
10 debate involved in this process as well. We saw this
11 very recently as the Commission considered a staff
12 proposal regarding the filtering of containment vents.

13 There are many observers who feel quite
14 strongly that matters like these should not be decided
15 by a cost-benefit analysis. Few other countries apply
16 such an approach, and it has been argued that backfit
17 analyses place the financial interests of industry over
18 the safety of the public. In my view, this is an
19 uninformed opinion.

20 The organizational and legal traditions in
21 the United States are very different from many of our
22 friends overseas. In many countries, for example,
23 nuclear industries are owned or controlled by national
24 governments. In the U.S., nuclear power plants are
25 almost entirely privately owned businesses. In our

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1 legal tradition, private companies have rights that are
2 in many cases similar to those of individuals.
3 Commercial companies have an expectation that
4 requirements will not be imposed upon them without good
5 cause and due process. Our processes are in line with
6 this tradition.

7 But more to the point, a disciplined
8 approach allows us to focus both NRC and licensee
9 resources on the issues of safety significance. When
10 everything is significant, nothing is significant.
11 Management attention, engineering talent, and, yes,
12 financial resources can be spread too thin. And when
13 this occurs, safety is not enhanced, it is weakened.
14 Our quantitative, disciplined approach reflects this
15 understanding.

16 I am not sympathetic to those who believe
17 that the backfit rule makes it too hard to put new
18 requirements in place. It should be hard. It forces
19 us to question ourselves about what is truly needed for
20 safety and avoid taking steps just because they may be
21 popular or politic at the time. At the end of the day,
22 if there is a matter that appears to be needed for safety
23 but doesn't survive a cost-benefit analysis, the
24 Commission itself has the authority to use its judgment
25 to impose any requirements it finds necessary. I think

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1 the order we placed in 2012 to enhance the
2 instrumentation in spent fuel pools is a good example.

3 Now the Commission itself is a vital pillar
4 in our safety infrastructure. I'm sure some people
5 hate it. You find people not in the direct thrall of
6 the usual executive branch control, independent at very
7 inconvenient times. Sometimes a bit deliberate. We
8 admit that. Occasionally in disagreement with the
9 staff. Occasionally in disagreement with itself.
10 The Commission is kind of like a close, weird family,
11 slightly dysfunctional. But if you live in one, you
12 come to understand and appreciate it. There are
13 probably about ten people in this room today that
14 understand it. In addition to my colleagues, we've
15 been lucky to have former Chairmen Diaz and Meserve with
16 us. I see Chairman Diaz right there. Former
17 Commissioners Lyons and Merrifield have also been here.
18 And I thank all of them for continuing their
19 participation and supporting the Agency and giving us
20 the benefit of their wisdom and experience.

21 As I've noted in the past, the Commission
22 structure, which involves intensive, informed debates
23 among five individuals with very different
24 backgrounds, as an example, university professors,
25 nuclear submarine commanders, congressional committee

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1 staff, sages.

2 (Laughter.)

3 This structure provides an excellent
4 mechanism to reflect society's evolving view as to what
5 constitutes adequate protection. After four years at
6 the center of this process, I think it's far better to
7 use the Commission to make important complex decisions
8 than leaving those matters to a single political
9 appointee. Nevertheless, I'm sure there are many
10 people who think we get it wrong.

11 Since I've been on the Commission, we have
12 had vigorous debates about worker dose standards, and
13 most recently spent fuel pool safety. It's very rare
14 that everyone is satisfied with the judgments the
15 Commission makes on such issues. But the process we
16 apply is a disciplined one and one that assures
17 consideration and evaluation of all relevant
18 information. And in my opinion, we've gotten just
19 about right every time. That's not to say we're
20 perfect. Humility, even for sages, is a core attribute
21 of a good nuclear safety culture. As such, we must be
22 able to change and revise our fundamental pillars
23 should experience, knowledge, or the availability of
24 new methods, tools, and technologies compel us to do
25 so. Ignoring the call for fundamental change is as bad

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1 as leaping to change for the sake of change or the
2 vicissitudes of fashion.

3 As a regulatory organization, we value
4 stability. And our licensees value stability. Yet,
5 one of the most important pillars of NRC's success to
6 date has been our ability to evolve. SALP gave way to
7 the ROP. Part 50 yielded to Part 52. It is my belief
8 that the next major step in our evolution is the
9 adoption of a strategy based upon risk-informed,
10 site-specific regulation. If we've learned nothing
11 else over the years, it is that each nuclear power plant
12 is a unique creature. In the United States, in
13 particular, most plants are unique in design. They
14 have wide variances in operating history and in the
15 modifications incorporated over the years. American
16 manifest destiny has bestowed upon us a country with
17 swamps and deserts, plains and mountains, forests and
18 tropics, and we have nuclear power plants in most of
19 these environments. Each site has unique
20 characteristics and hazards that must be understood and
21 addressed by plant design and operation.

22 As Commissioner Apostolakis said
23 yesterday, "risk contributors are plant specific, even
24 for sister units." See, I was listening. I was just
25 resting my eyes yesterday.

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1 (Laughter.)

2 Now the NRC staff does a good job of
3 recognizing the different issues as it seeks to
4 implement regulations. But the fact exists that the
5 agency issues and prioritizes regulatory actions on an
6 industry-wide basis. It is not quite "one size fits
7 all," but it is a close relative. We have barely
8 scratched the surface of the benefits to be obtained
9 by designing regulatory agendas on a plant-by-plant
10 basis and using to the extent practical, quantitative
11 understanding of risk. Adopting such an approach
12 would allow the resources at each plant to be focused
13 on the issues of highest significance for that plant
14 and to get them done quickly and efficiently.

15 Staff is working on the risk
16 prioritization initiative and I think that's moving us
17 in the right direction. I congratulate the staff's
18 creative efforts for developing this path.

19 However, it is vital that we never lose the
20 perspective that plant operators are responsible for
21 safety, not the NRC. There's no legislation that
22 states it, but operators must take the principal
23 responsibility for the safety of their plants. This
24 understanding informs all that we do as both regulator
25 and regulated.

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1 Now a licensed operator once asked me an
2 interesting question. "Would nuclear power plants be
3 safe if NRC didn't exist?" That's a question we should
4 all ask ourselves. The answer should be yes. But I
5 doubt that there are very many people in this room today
6 that would say yes without hesitation. Just as plants
7 differ, so do the companies that own and operate them.
8 Some are, quite frankly, stronger than others. If that
9 were not the case, we would not have and need an INPO.

10 That is not to suggest that any operator
11 would, left to its own devices, would run a plant in an
12 irresponsible manner. But without a regulator, what
13 pressure would plant managers feel from boards and
14 financial staffs? Would maintenance cycles be
15 stretched? Would training be cut back? What would be
16 the safety goal? How much risk would be acceptable?

17 The reality is, quite clearly, that
18 industry needs the NRC. Where would public confidence
19 be without a strong regulator? NRC provides a common
20 expectation for safety across the country that all
21 operators understand they must meet. This provides a
22 coherent standard by which decisions regarding plant
23 operations and investment can be measured.

24 But this yardstick should not become a
25 shepherd's crook and plant managers should not be

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1 pushed in the role of sheep led about by the NRC staff.
2 We must not create an environment in which plant
3 decisions are made or not made with solely compliance
4 in mind rather than plant safety. When owners refuse
5 to make safety-beneficial investments in a plant unless
6 NRC requires them, we have all failed. When plant
7 managers forego the installation of equipment that they
8 believe would increase the safety of their plants
9 because the NRC staff gives little or no credit for the
10 installation, we all need to take a long look in the
11 mirror. Are these the outcomes we expect and want? I
12 don't think they are.

13 Now think about the practices that have
14 evolved over the decades and the cultures we have
15 established both good and bad. For many of the people
16 who regulate and operate plants today, the current
17 balance between regulator and licensee is viewed in the
18 context of TMI era. They have the perspective born of
19 experience to know how to draw the lines between
20 regulations and related.

21 But with a new generation gaining
22 prominence in the industry and the NRC, this experience
23 is fragmenting into snippets in the past. I am proud
24 of the important role of the Federal Government, in
25 general, and the NRC, in particular, have played in

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1 supporting nuclear technology education in this
2 country. What we have accomplished has helped prepare
3 us for the changing of the guard and assured that the
4 most important pillar of our nuclear safety
5 infrastructure, highly trained people, will remain
6 strong for many years to come. That is a success story.

7 But this new generation of engineers and
8 scientists, as quick and bright as they are, lack the
9 experience of the days when dozens of new plants came
10 on line and plant transients were all too common. The
11 experience of those who managed NRC and the industry
12 during those times is fading from the scene, never to
13 be replaced. Even with the NRC's excellent training
14 programs, this is a reality that cannot be evaded.

15 However, these young people also bring new
16 ideas, new energy and new approaches as they grow into
17 positions of increasing responsibility. Even now, in
18 plants across the country and in the halls of the NRC,
19 this new generation pushes us into the future. At the
20 same time I know that there are those of you, Janelle,
21 who is sometimes frustrated by the structures and
22 practices of the ruling generation. As T.E. Lawrence
23 wrote in his memoir, Seven Pillars of Wisdom: A
24 Triumph, "Youth could win, but had not learned to keep,
25 and was pitiably weak against age." But be patient,

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1 your time is coming and soon you'll have the
2 responsibility for nuclear safety and your challenge
3 will be to be ready and to accept that responsibility
4 when it comes.

5 One of the greatest aspects of the RIC is
6 the participation of so many of our friends and
7 colleagues around the world. We welcome all of you.
8 Thank you for attending this year's conference. Your
9 presence today, however, is no longer just a luxury or
10 a convenience. It's a vital necessary.

11 I've often reflected on that moment,
12 during the signing of the Declaration of Independence
13 when Benjamin Frankly famously remarked, "We must all
14 hang together, or assuredly we shall all hang
15 separately." This comment applies to many things in
16 life, but even Franklin, another sage, could never have
17 forecast how well it applies to a group like the 3100
18 people in this hall today.

19 Nuclear power is a global undertaking and
20 we are in this together. We are married to each other.
21 We are held hostage by each other. We are each other's
22 best friends and worst enemies. We are at once buyers
23 and suppliers. We are teachers one day and students
24 the next. The relationships and cooperation we share
25 are part of the modern foundation of nuclear safety in

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1 all of our countries. We must seek to expand and extend
2 them.

3 When the Atomic Energy Act became law 60
4 years ago, no one could have imagined the breadth and
5 diversity of nuclear power and nuclear regulation as
6 it exists across the world today. Our challenge is to
7 find a way to make that diversity strength from which
8 to build a brighter, safer future for the publics we
9 all serve.

10 Thank you very much.

11 (Applause.)

12 MR. LEEDS: Thank you very much,
13 Commissioner. We have a number of questions from the
14 audience and since we have some time, we'll get started.

15 COMMISSIONER MAGWOOD: No.

16 (Laughter.)

17 MR. LEEDS: Okay, next question. In
18 Japan, there are many idled nuclear power plants. Now
19 it's been three years after the Fukushima accident. In
20 general, what do you think would be the best approach
21 for any country trying to restart plants that have been
22 shut down?

23 COMMISSIONER MAGWOOD: Well, first let me
24 say that as I mentioned, I've addressed Diet groups in
25 Japan. The question was asked in a meeting in Japan

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1 as to whether the requirements that the new JNRA has
2 put forward are too conservative. And I was asked for
3 an opinion about that. My answer was that if you look
4 at what happened in the United States after 9/11, you
5 saw a very conservative reaction to security and even
6 to this day, security in the United States is far more
7 conservative than it is in many countries. So I think
8 given the magnitude of the disaster faced by our
9 colleagues in Japan, it's no surprise that they've
10 taken a conservative approach to regulation. I think
11 it's appropriate given the circumstances.

12 So I think that it's something each country
13 has to decide given the circumstances facing it as to
14 how they restart plants, but it's very important that
15 it be done in a consistent and coherent fashion with
16 clear and transparent rules. As long as that's done,
17 I think that the approach taken by each country is
18 appropriate given the circumstances.

19 MR. LEEDS: Thank you. The next question
20 reads, it involves safety culture, but it starts off,
21 it isn't easy to change, build, or engineer an
22 organizational culture. How can countries about to
23 embark on nuclear energy programs build cultures that
24 embrace safety?

25 COMMISSIONER MAGWOOD: That's an

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1 excellent question and no one knows the answer to it,
2 even me. But I think there are some things that we have
3 seen that do work. One is many countries that are
4 growing their nuclear regulation organizations have
5 formed close relationships with countries with
6 established organizations like NRC and ASN in France
7 and others. And we do personnel exchanges. We have
8 people who spend time at NRC and learn how we do
9 business.

10 And we send our people to overseas
11 countries to espouse and to show people by example how
12 we do business. I think that's how it begins. I think
13 that's the value. And there are many people in this
14 room from overseas who have spent time at NRC. And some
15 of them have even gone on to be head regulators. I'll
16 be meeting with one today. I think that that's how we
17 can help inform that process. But it's a very
18 difficult question because all these cultures are very
19 different.

20 What works at NRC may not work in another
21 country in all cases. So it's something that's a very
22 difficult thing to develop over a short period of time.
23 But the truth is everyone, I think, has to understand
24 that there's a need to develop a culture like that and
25 to do everything they can to develop it.

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1 MR. LEEDS: Thank you. This next
2 question, Chairman Macfarlane noted that the front end
3 of the fuel cycle should integrate with the back end
4 of the fuel cycle. Do you have any comment on how this
5 was already done through reprocessing and what changes
6 may be required now?

7 COMMISSIONER MAGWOOD: Well, I think it's
8 true that when you look at the fuel cycle that you should
9 think about the whole fuel cycle. And I think as part
10 of that whenever you have -- whenever you're developing
11 particularly a new technology that you think about the
12 entire fuel cycle and what kind of fuel do you start
13 with and where is the spent fuel going and how do you
14 treat that?

15 Obviously, when we started embarking upon
16 nuclear power back in the 1950s, the vision was a
17 reprocessing vision. The idea was that we were going
18 to mine uranium, burn it in light-water reactors,
19 reprocess it and it was going to be a whole fuel cycle
20 involving fast reactors and reprocessing. That was
21 the vision up until the early '70s.

22 Quite frankly, I think that our vision in
23 the United States to go to a once-through fuel cycle
24 has been one we've been struggling with ever since.
25 We've been trying to accomplish that, but there have

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1 been pluses and minuses to that approach and we've never
2 quite settled on a clear strategy.

3 Now I think that we do now have an
4 opportunity to take another look. There's a lot of
5 good thinking that's gone on in the Blue Ribbon
6 Commission that Chairman Macfarlane served on and
7 there's other things going on now as well to try to lay
8 out a path to the future. I don't think that path in
9 the immediate future calls for reprocessing. I don't
10 think it's practical for us to go down that path today.
11 But in the long term future, if there are advances in
12 technology, I think it's something we should look at
13 again. But for now I think we just have to sit by and
14 watch and continue as we're going until more policy
15 decisions are made.

16 MR. LEEDS: Thank you, Commissioner.
17 This next question is very specific and I'll get into
18 the specific question, but I'd be interested in
19 answering it in a general term also. The specific
20 question reads can you share your opinion for
21 establishment of a World Nuclear Regulatory
22 Commission. But I think in answering that question we
23 also have to answer, what all the different world
24 regulators do now to share information and work
25 together.

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1 COMMISSIONER MAGWOOD: This comes up
2 quite a bit. And there's a young lady who may be here
3 who -- she is here, a student from MIT who's thinking
4 about this. And she asked me that question recently
5 about is there a way that the world can have a more
6 common approach to nuclear regulation.

7 I think the answer is we can't and let me
8 talk about that for just a moment. I think that the legal
9 traditions, the approaches in so many different
10 countries are so different that having one regulator
11 for the world is just not practical. And I also think
12 that each country reserves onto itself the right and
13 desire to manage nuclear safety the way it thinks best.
14 I don't think it would be appropriate for an
15 international organization to tell the Japanese how to
16 run their plants. I don't think an international
17 organization should tell us how to run our plants. So
18 I don't think that a world approach is a good approach.

19 However, there are important mechanisms,
20 the Commission on Nuclear Safety for one, NDEP for
21 another. Things where regulators around the world
22 meet and talk and compare notes. And of course, the
23 RIC itself is a great example of how regulators come
24 together to compare notes and then talk about common
25 issues.

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1 One of the things I find most gratifying
2 about our conversations with RIC is that I've talked
3 to regulators from around the world about the response
4 they've had since the disaster in Japan, there's a huge
5 amount of commonality. There are more similarities on
6 how we've approached the post Fukushima era than
7 differences. There are differences, but there are
8 more commonalities. I think that shows the benefits
9 of the kind of interactions that we've had over the
10 years and the fact that we are talking and we are sharing
11 and we are working together. I think that's probably
12 the right answer and the right balance.

13 MR. LEEDS: Thank you. For your next
14 question, the question reads due to the changing world
15 economies, a lot of foreign companies are investing
16 funds in the United States. Keeping this strategic
17 change in mind, what is the NRC doing to revise the
18 foreign ownership control and domination regulatory
19 requirements?

20 COMMISSIONER MAGWOOD: Well, the NRC has
21 asked itself that question. And that question is now
22 something that we at the Commission will be wrestling
23 with in the near future. So I don't want to comment
24 on it. But I want to respond to the first part of the
25 question which is that there is this interest of foreign

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1 companies to do nuclear-related work in the United
2 States. And I think that that does represent a change,
3 a significant change in the way things used to be. It's
4 not the way it was in the 1960s and '70s. This is a
5 new world and a new era.

6 So it makes sense for us to ask ourselves
7 that question. We are not blind to it. We are not deaf
8 to it. So we will engage it and we will develop a
9 response.

10 MR. LEEDS: Thank you. Commissioner, do
11 you have any technical concerns with nuclear power
12 plants operating beyond 60 years?

13 COMMISSIONER MAGWOOD: See Apostolakis'
14 comment from yesterday.

15 (Laughter.)

16 Let me say this. I think this is one of
17 the most important questions that I think the
18 Commission will deal with over the next couple of years
19 because it does raise some important issues. I think
20 that we've always taken the position in the NRC that
21 if something is safe today, there's little to say why
22 it would be unsafe tomorrow. With that said, we are
23 looking at some technical issues associated with aging,
24 aging of concrete, aging of materials, aging of
25 components. And that's something that we have to take

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1 into close consideration as we go into this next step.
2 But that's something that the Commission will be
3 dealing with in the very near future. So I'll leave
4 it at that.

5 MR. LEEDS: Thank you. Just a couple more
6 questions, Commissioner. This first one, can you
7 please advise on the path forward in the Commission's
8 update to the waste confidence rule?

9 COMMISSIONER MAGWOOD: Well, only that
10 we're on track this fall that the process on the waste
11 confidence should be over. We've received all the
12 public comments and we'll be in a position to move
13 forward and to go forward with the licensing activities
14 that were suspended while waste confidence was being
15 sorted out.

16 I seriously doubt that's completely going
17 to be the end of the story. I suspect we'll see more
18 challenges to whatever conclusion we come up with, but
19 I'm confident. The staff has done a very solid job.
20 Our legal staff has looked at this very closely and I
21 think we're on a good path to bring this to resolution
22 and do it this fall.

23 MR. LEEDS: Thank you, sir. And one last
24 final question. The issue of leakage of contaminated
25 water from the Fukushima is a global issue. Is NRC

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1 involved in any way with regard to taking action and
2 helping the Japanese in this matter?

3 COMMISSIONER MAGWOOD: We work very
4 closely with NRA. Commissioner Fuketa, I think has
5 probably left by now, has been here, and has been
6 meeting with many of us to talk about the current
7 situation in Japan. We've committed to provide
8 whatever advice and assistance that our colleagues in
9 Japan request. And I think that we have engaged on a
10 lot of these issues associated with the Fukushima
11 plant, but I think it's also an area where the Japanese
12 are fully aware of the challenges and well equipped to
13 deal with it and they're trying a variety of different
14 strategies to deal with the water issue. It's a very
15 difficult issue, and I think it's an unprecedented
16 issue. No other country has ever had to deal with a
17 situation quite like this before. I think that it's
18 to be expected there would be difficulties in bringing
19 it to resolution, but I'm convinced that our friends
20 in Japan are committed to solving that problem and to
21 giving people reassurance that the issue of
22 contamination leaving the Fukushima site will be
23 resolved.

24 I want to echo Chairman Macfarlane's
25 comments from yesterday that there's no evidence that

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1 any leakage from the Fukushima site presents a hazard
2 to the United States and I don't think it presents a
3 hazard to even most countries in the region because of
4 the dilution factor, but nevertheless, it's something
5 that we will continue to watch very closely. Thank you
6 very much.

7 MR. LEEDS: Thank you, Commissioner.

8 (Applause.)

9 Thank you so much, Commissioner.

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