

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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30TH ANNUAL REGULATORY INFORMATION CONFERENCE

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COMMISSIONER PLENARY

REFORMED AND REFORMING: ADAPTING THE REGULATORY
PROCESS TO MEET NEW CHALLENGES

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TUESDAY

MARCH 13, 2018

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The Regulatory Information Conference met
in the Grand Ballroom at the Marriott Hotel and
Conference Center, 5701 Marinelli Road, Rockville,
Maryland, at 11:17 a.m., Michael Weber, Director for
RES, facilitating.

COMMISSIONERS PRESENT

STEPHEN BURNS, Commissioner

STAFF PRESENT

MICHAEL WEBER, Director, RES

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

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MR. WEBER: Now rounding out our commissioner plenary presentations I had the honor of introducing Commissioner Stephen Burns, who began his service at the Commission on November 5th, 2014 with a term ending June 30, 2019.

Mr. Burns serves as the 16th NRC Chairman from January 1st, 2015 until January 23rd, 2017. Now as a Commissioner, he continues to be engaged in the work of the agency and its safety and security mission. This is his 28th regulatory information conference and his 4th as the Commissioner.

Commissioner Burns has had a distinguished career within the NRC and internationally. Immediately prior to rejoining the NRC, Commissioner Burns was the head of legal affairs of the Nuclear Energy Agency at the organization for economic cooperation and development in Paris. And he served there from 2012 until 2014.

Prior to assuming his post at the NEA, Commissioner Burns served as a distinguished employee of the NRC for 33 years, from 1978 through 2012. And he served in a variety of roles during his career, including being appointed as the NRCs general counsel

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1 from May 2009 until April 2012.

2 And also of note, Commissioner Burns
3 served as the executive assistant to former NRC
4 Chairman Ken Carr and as the Director of the Office of
5 Commission Appellant Adjudication.

6 Commissioner Burns received his JD degree
7 in 1978 from George Washington University here in
8 Washington, D.C. And his bachelor of arts degree in
9 1975 from Colgate University in Hamilton, New York.

10 The title of the Commissioner's
11 presentation this morning is Reformed and Reforming:
12 Adapting the Regulatory Process to Meet New Challenges.
13 Ladies and gentlemen, please join me in welcoming
14 Commissioner Burns.

15 (Applause)

16 COMMISSIONER BURNS: Well, thanks
17 everyone. I was looking over here, apparently this is
18 the hot seat up here because there's a burn mark from
19 an iron on the platform over here, so I hope it's not
20 coming for me. Something like that.

21 I appreciate Mike mentioning my
22 educational background. As someone reminding me
23 today, that Colgate woman have made the frozen four in
24 hockey and we're going all the way. So the heck with
25 Alabama --

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1 (Laughter)

2 COMMISSIONER BURNS: -- we're here for
3 hockey. Anyway.

4 I've titled my remarks today, Reformed and
5 Reforming: Adapting the Regulatory Process to Meet New
6 Challenges. And the theme expands upon an article I
7 recently wrote for the OECD Nuclear Law Bulletin.
8 Which was specific to the licensing of advance reactors
9 and reflecting on the licensing process over the years.

10 However, in reflecting on what I speak to
11 you all about today, I wanted to expand on that premise
12 of my article to cover the topic more broadly.

13 I first joined the NRC 40 years ago, fresh
14 out of law school. In fact, I was in my official
15 personnel file, which is all electronic now, and
16 believe it or not I found my NRC application.

17 Now, there may be something about cyber in
18 there, why the heck do they still have an application
19 I made 40 years ago, and typed by hand, in a file.
20 There's too much information out there.

21 But anyway, I found my law school
22 transcript and my college transcript and, you know,
23 there was some classes I did well in and there's one
24 in law school I never forgave the professor for.

25 (Laughter)

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1 COMMISSIONER BURNS: But in any event, it
2 struck me over the course of my 40 years in this field
3 that there is often a central conundrum in regulation.
4 And we continue to be challenged by the conundrum today.

5 And let me elaborate. There is often
6 broad agreement that the level of safety or security
7 established by certain regulations, license conditions
8 or other legally binding instruments, is in the
9 judgement technical experts too conservative, based on
10 outdated information or imposes an unnecessary
11 regulatory burden.

12 The regulation says perhaps that you need
13 to have a 12 inch diameter widget, but professional
14 expertise and further research tells us that an eight
15 inch diameter widget will be just fine.

16 What to do? Both the regulator and the
17 regulated seem equally frustrated asking themselves,
18 why do we spend so much time trying to resolve issues
19 of little safety significance.

20 Part of the cause may be what some refer
21 to as paralysis by analysis, or processitis. Where we
22 may get so caught up in following a particular way of
23 doing things that we lose sight of the bigger picture.
24 Or we can't seem to reach the point of satisfaction in
25 analyzing a problem and thus the process become

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1 paralyzing.

2 I've seen this over and over again across
3 the course of my career without any lasting solution
4 proposed or implemented. And if you're hoping that I
5 would come here with one today, sorry, this is, again,
6 as some others, my predecessor said, this is a
7 destination not a journey, not a specific outcome that
8 I can offer.

9 But I do intend to focus on this journey
10 of nuclear regulation and not necessarily the
11 destination. And my intention is to give you perhaps
12 a new lens through which to think about some of our
13 current challenges.

14 I'll offer these three current examples
15 where this tension is playing out, itself out, as we
16 speak. As some others have mentioned already this
17 morning, digital instrumentation and control and
18 accident tolerant fuels, and the licensing framework
19 for advance reactors.

20 In my view, these are concrete examples
21 where we have struggled to find reasonable solutions.
22 In large part because we do feel inextricably tied to
23 our regulatory structure. And we have been slow to
24 acknowledge at times some of the difficulties in
25 adapting that structure.

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1 However, in some respects I would argue
2 that we are seeing some success in overcoming the
3 dilemma.

4 But before I really get into it, and
5 certainly before I begin looking towards the future,
6 I'd like to tell you a story about how past is prologue.

7 Back in November 1971 I was an 18-year-old
8 college freshman from Virginia at Colgate University
9 getting used to academic life in upstate New York.

10 And if you remember your freshman year you
11 know there are a lot of adjustments to make. And most
12 students are focused on dealing with new teachers, a
13 new campus, new friends. And so I was.

14 But I was also determined to cast my vote
15 in the first election for which I was eligible. Right
16 after the 26th Amendment to the Constitution gave 18
17 years old, like me, the right to vote.

18 And so I went to the university registrar's
19 office to fill out my absentee ballot because I needed
20 to have it notarized by the Commonwealth of Virginia,
21 those days.

22 Now I intended, at that time, to vote a
23 straight republican ticket, to support that parties
24 push under Governor Linwood Holton to shed Virginia's
25 legacy of segregation, but I accidentally selected two

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1 candidates on my ballot for the house of delegates for
2 whom I did not intend to vote.

3 I carefully crossed out those names and
4 wrote in, do not desire to vote for these two on the
5 ballot. All good, all clear as far as I was concerned.

6 Unfortunately, the Board of Elections
7 thought otherwise and ruled that my ballot was defaced
8 and it was rejected. Which unbelievably enough lead
9 to a tie vote for that House seat.

10 (Laughter)

11 COMMISSIONER BURNS: Sorry. As an aside,
12 yes, every vote does count. So I leave that lesson with
13 you.

14 But in the case of a tie in Virginia,
15 according to Virginia law, the winner is left to chance
16 and literally drawn from a hat. Well, in this case a
17 silver cup. And by the way, my candidate won in 1971.

18 And Washington Post recently retold this
19 story. So why and why is it relevant now?

20 Fast forward to 2017. Forty-six years
21 after my voting snafu, Virginia faced exactly the same
22 unlikely predicament involving a disputed ballot. A
23 tied race and a tie breaking lucky draw to settle a State
24 House race.

25 The Post retold the story for the same

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1 reason that I'm recalling it now because we often think
2 of that what we're facing today, in politics and
3 academia, in regulatory space, is completely novel,
4 something never seen before. And it's just not true.

5 Here is an NRC press release. The
6 headline from an NRC press release, Nuclear Regulatory
7 Commission directs staff to take experimental steps to
8 improve licensing process.

9 (Laughter)

10 COMMISSIONER BURNS: I didn't think that
11 was funny, but anyway, Mike.

12 (Laughter)

13 COMMISSIONER BURNS: Okay. Nothing
14 particularly surprising there. But note, the press
15 release is dated October 20th, 1978. Two months after
16 I began my career at the NRC.

17 And here is something else that might sound
18 familiar. Both the New York Times and the Washington
19 Post ran front page stories, President offers plan to
20 reform federal agencies.

21 Now, which president you ask, it was John
22 F. Kennedy. And the story ran on April 4th, 1961. And
23 I note actually the headline that day was about the
24 successful orbit of earth by cosmonaut Yuri Gagarin.

25 Undoubtedly, we could find similarly

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1 stories under more recent presidents. And from Reagan
2 to Obama but actually going back into 1930's under
3 Roosevelt, Truman and Eisenhower.

4 And I don't mean to be dismissive of the
5 underlying premise that regulatory reform and
6 effectiveness demand our attention, it clearly does.
7 But certainly from a regulator's perspective, neither
8 the evolution of technology nor the institution of
9 major regulatory reform initiatives is new or novel.

10 Every administration in the modern era has
11 engaged in some sort of regulatory reform initiative.
12 And while some of the technology and processes behind
13 advance reactors, accident tolerant fuels or digital
14 I&C might be new or novel. The challenge of
15 appropriately regulating new technology is not.

16 The regulatory conundrum I mentioned at
17 the outset manifested itself in a number of ways.
18 Prescriptive versus performance based regulation,
19 deterministic versus risk informed thinking,
20 compliance based versus safety focused regulation.
21 Whatever you call it, they all share a similar
22 characteristic.

23 The NRC has put in place a legally binding
24 mechanism or an interpretation of such. Be it a
25 regulation, an order, a license or guidance, that

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1 contains a requirement or guideline that is challenged
2 by some as being too concerted, unnecessary or
3 outdated.

4 And as such then it's argued, unnecessary
5 hindrance to innovation, improvement or progress. The
6 basic tension in these expressions underlies much of
7 what I have, in the past called, or referred to, as the
8 regulatory craft.

9 At its very heart, this tension underlies
10 a fundamental notion of our form of government. Which
11 is based on law and not the whim of individuals.

12 As John Adams said, a government of men,
13 a government of laws, not men. This conflict between
14 the so-called rule of law versus the rule of man dates
15 far back to the beginnings of democracy.

16 And although many of us have heard or used
17 that expression, the rule of law or the rule of man,
18 how those terms are precisely defined is somewhat
19 difficult to come by and varies based on context.

20 I would offer that the collective societal
21 recognition of the supremacy of law, even though there
22 are laws that we, as individuals, may or might not agree
23 with, is essential to our system of government.

24 The supremacy of law is based on societies
25 acknowledgment that laws were enacted through an agreed

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1 upon legislative process, such as that defined in the
2 U.S. Constitution. Through which the people of this
3 nation have had some opportunity, usually through the
4 political process, to voice their views or have their
5 influence.

6 On the other hand, what times can be
7 antithetical to the rule of law is the so-called rule
8 of man. In the context of our discussion today I'm
9 referring to those situations in which individuals or
10 groups reject laws for their own reasons. Or
11 alternatively the government entity responsible for
12 implementing the laws arbitrarily chooses to ignore
13 them.

14 When parts of society, be it the government
15 or the public choose not to follow its law, this is
16 essentially a breach of the social contract.
17 Composited by philosopher Jean-Jacques Rousseau.

18 We, as regulators, go through complex
19 legal processes involving significant public input to
20 adopt regulations or to issue licenses. Regulatory
21 decisions can manifest themselves in the application
22 of expert, engineering or professional judgment. Or
23 even simply commonsense.

24 Requirements reflect in the regulations
25 and our licenses are therefore in a sense the law of

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1 the land. And choosing to arbitrarily ignore them
2 comes with consequences.

3 And at times we may come up against,
4 however, some rule or regulation that just doesn't make
5 sense. As Plato noted, a failure by rule-makers to
6 acknowledge and take action when a rule has ceased to
7 achieve its intended purpose is "like a stubborn stupid
8 person who refuses to allow the slightest deviation
9 from or questioning of his own rules, even if the
10 situation is in fact changed and it turns out to be
11 better for someone to contravene those rules."

12 In other words, sometimes simply asserting
13 that this is the way we've always done it is just not
14 good enough. And in fact, it may be counterproductive
15 to optimizing regulatory effectiveness, and thus there
16 is a natural tension between the societal need for
17 predictable rules and the need for flexibility to apply
18 commonsense or acknowledge new information when
19 needed. This is the heart of the regulatory conundrum
20 that I speak of today.

21 The imperative addressing this conundrum
22 increases during times when resources are limited and
23 agencies are facing increased political pressure to
24 rationalize or reset their practices. This can
25 manifest itself in general government wide reform

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1 efforts initiated, as I noted by almost every
2 administration in the modern era, and there is also
3 constant pressure on the regulator to be more risk
4 informed, efficient, predictable.

5 The NRC has been notably proactive over the
6 last few years when it comes to taking a hard look at
7 itself. Examples, of course, are Project Aim, the
8 reassessment of our budget requests and staffing
9 levels, reforms to the rulemaking process and the
10 initiation of retrospective review of regulations.

11 In my view, the NRC statutory mandate and
12 the Atomic Energy Act to provide reasonable assurance
13 of adequate protection gives the agency significant
14 flexibility to adjust itself over time, to account for
15 the regulatory conundrum I've discussed.

16 Reasonable assurance is not a static
17 concept, it should be fluid and adaptable to the current
18 state of the art and science and technology and reflect
19 the current security environment. What was deemed
20 necessary in 1954 is not necessarily the same as what's
21 deemed necessary in 2018.

22 Compliance with NRCs regulations, for
23 example, has long been understood to ensure adequate
24 protection. But there are times when the regulations
25 are deemed not enough, or too much.

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1 After the 2011 accident,
2 Fukushima-Daiichi Plant, for instance, the NRC
3 determined that the level of protection for U.S.
4 nuclear power plants was not sufficient, and
5 accordingly the NRC took action to increase those
6 standards, getting input from the public and from the
7 industry.

8 But expert judgment and commonsense
9 dictated that to be the case. But in the acknowledge
10 in the importance of the rule of law, the changes were
11 made to existing standards through establish and
12 transparent processes.

13 On the other hand, the NRC, at times, must
14 acknowledge when its existing standards of safety may
15 be higher than necessary to achieve adequate
16 protection. An example is requirements for
17 decommissioning of power reactors.

18 From a technical and safety perspective,
19 we understand that these facilities do not need to be
20 regulated to the same standards as operating
21 facilities. They don't pose the same kinds of risk.

22 Yet our rules, as currently written, don't
23 really distinguish between the two. And so
24 recognizing this the NRC has granted exemptions, under
25 its regulations, to adjust the level of regulation

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1 necessary to achieve adequate protection at
2 decommissioning facilities.

3 And we're also engaged, as others have
4 noted, in a rulemaking to codify that judgement. And
5 again, we do so through a public formalized transparent
6 process consistent with the rule of law.

7 Yet another example where the regulatory
8 conundrum comes up is the inspection process. You can
9 imagine a situation, I know for many you'll say it's
10 not imaginary, which an NRC inspector makes a finding
11 that a licensee is not in compliance with the regulation
12 or provision of its license.

13 Both the inspector and the licensee may
14 agree, in fact, that compliance is marginal or that the
15 licensee isn't in compliance. And they may even also
16 agree that the noncompliance has marginal safety
17 significance.

18 So what's the inspector to do, ignore it,
19 ignore the issue, not document her findings because in
20 her expert judgment the issue is not safety
21 significant?

22 In other words, should that inspector
23 apply her personal discretion to decide unilaterally
24 that the license provision makes no sense and doesn't
25 need to be adhered to?

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1 Some might say, of course, that this is
2 just commonsense and to initiate a regulatory process
3 to deal with a trivial issue is a waste of resources
4 and time. But again, the license is law.

5 And if we have, all truly have respect for
6 the law, then out of principle, should we allow this
7 to occur?

8 If the situation were different and
9 licensee disagreed with the inspector on both the
10 interpretation of the license and its safety
11 significance of the violation, would we be comfortable
12 in allowing the inspector to exercise her judgment? I
13 would suggest that we would not.

14 So what's my point? Every day we confront
15 this regulatory conundrum. Be it in regulations,
16 licenses inspection findings, regulatory
17 interpretations, issuance of exemptions.

18 But we have to be careful in making snap
19 judgements based on particular facts or circumstances,
20 that either our regulations or regulatory
21 interpretations are infallible or that bad
22 requirements can simply be ignored.

23 The integrity of our system depends on
24 principle adherence to the process. Even when it makes
25 little sense at times to someone.

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1 That said, the NRC, as a regulator, can and
2 should be flexible when it comes in finding ways to deal
3 with a conundrum. As Ralph Waldo Emerson commented,
4 "a foolish consistency is the hobgoblin of little minds
5 adored by the little statesmen and philosophers and
6 divines." Wonderful quote.

7 So I said this tension challenge us every
8 day. And here again I'll come back to the examples I
9 mentioned earlier.

10 We take digital instrumentation and
11 control. We've had a good discussion on that I think
12 and the three, the three predecessors up here up on the
13 stage. And it's really probably the best example,
14 currently, that demonstrates the difficulty of
15 overcoming or adapting regulatory controls that don't
16 appear to align with some of the technological
17 advances.

18 And in this case, the safety criteria do
19 not readily address how typical regulatory concerns
20 manifest themselves in digital systems. And while we
21 all agree that digital systems have the potential to
22 improve safety and operational performance, when
23 compared to analogue systems, we've been unable to
24 overcome those hurdles of the existing process to
25 license them.

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1 Even as other industries with similar
2 low-risk tolerances such as the defense and aerospace
3 industries have succeeded.

4 And the irony is that in a legitimate
5 effort to ensure that plants are safe, the NRC may be
6 imposing regulatory obstacles that prevent the
7 implementation of safety improvements. There's the
8 conundrum.

9 The NRC and Industry continue to be
10 discussing these issues. And in fact, are meeting
11 again this week, I understand. And the executive
12 director, Mr. McCree, has recently created the
13 transformation team, as he talked about, to target this
14 subject as one that we need to do work on.

15 Another example is the Industry's pursuit
16 of accident tolerant fuels. Several fuel vendors, in
17 coordination with the Department of Energy, have
18 announced plans to develop and seek approval for
19 various fuel designs that enhance, with enhanced
20 accident tolerance.

21 And the first test bed for these efforts
22 involve licensees that have reached agreements with
23 fuel vendors to load lead test assemblies at their
24 plants. Lead test assemblies are an important first
25 step in the licensing because they can provide data

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1 about their performance of new fuel in a reactor
2 environment as well as provide materials for subsequent
3 research and testing.

4 And even though lead test assemblies have
5 been installed at many plants in the past, the agency
6 and Industry have been challenged to agree on the
7 appropriate licensing path forward. For those plants
8 planning to load lead test facilities in the near
9 future.

10 This is a practical example of the tension
11 between inherence to establish regulatory regime and
12 allowing adaptation or flexibility to address new
13 innovations. Our past practice has been largely
14 require approval of exemptions to our ECCS
15 requirements, and often license amendments, before
16 lead test assemblies could be loaded in an operating
17 plant.

18 This is despite the fact that in most cases
19 the safety significance of loading these test
20 assemblies in these quantities is extremely low. I
21 would note however that upon closer examination of
22 these existing requirements, it does appear that
23 exemptions and amendments may not always be required.

24 So I think it's fair to say that with both
25 digital I&C and with accident tolerant fuels, we've

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1 been struggling with the process. Some in the agency
2 appear to be reluctant to let go of the existing
3 requirements even when some expert judgment or perhaps
4 even commonsense dictates those regulations don't
5 squarely address the exact problem or may be too heavy
6 handed.

7 And it seems we struggle to be flexible and
8 honestly acknowledge that level of risk. Rather many
9 are finding it easier to cling to what is known, what
10 is proven and deterministic.

11 In contrast, I would offer the third
12 example, our work on advance reactors. Despite some
13 early criticism that the NRC has been slow to act and
14 existing regulatory structure made it difficult for new
15 interims to get involved in the field, I would argue
16 that NRC has designed a strategy that is extremely
17 flexible and forward looking.

18 In simplest terms, the conundrum is
19 represented by the fact that our current technical
20 standards, as others have mentioned this morning,
21 applied, that are applicable to plant licensing, have
22 been largely drawn from experience with light water
23 reactor technology.

24 It's been argued that these standards are
25 overly conservative, not risk-informed or simply

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1 inapplicable to some advance technologies. The
2 appropriateness of current regulatory standards and
3 the need to make changes to address advance reactor
4 technologies is an important issue and one that may well
5 warrant regulatory change in the future. In the
6 long-term.

7 But at least in the near-term,
8 case-by-case assessments of the particular relevance
9 of generic standards and requirements to the technology
10 being put forward in an application will be necessary.

11 Let me discuss some examples however where
12 the NRC has proactively tried to address the
13 limitations in its framework. Beginning in 2010, for
14 example, the staff began work on re-looking at a number
15 of policy, licensing and technical issues that might
16 warrant further commission engagement as the staff
17 prepared for the review of SMR designs.

18 Those issues included accident source
19 terms, site suitability, emergency planning, security
20 and safeguards requirements and the application of
21 defense-in-depth. And I think we're making progress
22 on those issues.

23 In 2013 the NRC and DOE initiated joint
24 effort to address the licensing framework for advance
25 non-light reactor technologies that ultimately lead to

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1 the 2017 issuance of a draft reg guide addressing the
2 general design criteria. And in late 2018 the NRC
3 issued division and strategy statement and developed
4 implementation action plans to address actions to
5 achieve its objectives.

6 We've also looked for experience with
7 stage approaches to licensing from other agencies.
8 The Federal Aviation Administration, the Food and Drug
9 Administration use them.

10 And in the international community, our
11 Canadian colleagues to the North and those in the United
12 Kingdom with the vendor design review or the general
13 design approval process in the U.K.

14 The staff also recently issued its
15 regulatory roadmap, review roadmap, in December 2017.
16 And it illustrates how a stage approach can align with
17 the current licensing process.

18 So to sum up, what does this all mean? I
19 purposely used the title, in my title of my law bulletin
20 article, the phrase reformed and reforming.

21 And although that phrase is generally used
22 in an ecclesiastically context, and for those of us who
23 marked the 500th anniversary of the protestant
24 reformation, you'll know what I'm talking about.

25 (Laughter)

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1 COMMISSIONER BURNS: The phrase
2 underscores my view of the historic and ongoing
3 approach that the NRC has taken to meet challenges put
4 before it. We continue to examine ourselves, our
5 processes, our approaches, to adapt them when necessary
6 and to reflect in good faith on experience gained and
7 then reform yet again when needed to meet new
8 challenges.

9 In order to come up with practical and
10 implementable solutions to our current challenges, we
11 must first and foremost acknowledge the reality that
12 we live within a system of laws and those laws have
13 meaning. And those laws include statutes,
14 regulations, and licensees.

15 We can take, we can't take shortcuts simply
16 for the sake of expediency or because the rules or the
17 processes that we're changing them seem inconvenient
18 at the moment. A principle and consistent
19 acknowledgment of the rule of law is essential to the
20 integrity of our system.

21 But then again, our rules should not be
22 viewed as infallible, unbending or unchangeable.
23 Rules that don't serve their purpose or that are because
24 of advancements in technology or operating experience,
25 deemed to be overly conservatively can and should be

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1 changed.

2 And we should make realistic
3 acknowledgments of risk and always keep in mind our
4 mandate of reasonable assurance of adequate
5 protection.

6 The notion of being risk-informed can
7 apply equally to our processes as well. I mentioned
8 at the outset the processitis or paralysis by analysis,
9 and it seems that sometimes we can get stuck on
10 processes and not solutions.

11 So adjusting our standards or processes to
12 keep up with the times cannot move at a glacial pace.
13 When I started the agency 40 years ago, rulemakings took
14 an average about two years. Now it's about four years.
15 And I remember Commissioner Ed McGaffigan complaining
16 about that two years when he was here.

17 Blind adherence to process simply for its
18 own sake does not advance nuclear safety and does not
19 reflect well on the NRC as an effective and efficient
20 regulator. And at times it can also cause us to lose
21 sight of the forest for the trees.

22 No doubt the trees are important, they make
23 up the forest after all, but the forest, like nuclear
24 safety, is the bigger picture and we cannot lose our
25 focus on it. And to do this, we must be honest with

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1 ourselves and be able to assess if our processes are
2 fully furthering the mission of safety and security and
3 we must be willing to reassess.

4 The reformation of the NRC is not a
5 destination it is a journey, as some others have
6 referenced earlier today.

7 We will never be able to say mission
8 accomplished in trying to reach some of these ideals
9 nor should we. Much like the technology we regulate,
10 we as the regulatory should be constantly involved in
11 reforming.

12 So I'll leave you with a quote from Thomas
13 Jefferson. If you've ever visited the Jefferson
14 Memorial along the Tidal Basin I'm sure you've seen
15 passages from Jefferson's writing inscribed on the
16 walls.

17 And a quote on the southeast portico seems
18 apropos. "I am not an advocate for frequent changes
19 in laws and constitutions, Jefferson writes, but laws
20 and institutions must go hand-in-hand with the progress
21 of the human mind. As that becomes more developed,
22 more enlighten, as new discoveries are made, new truths
23 discovered and manners and opinions change with a
24 change of circumstances, institutions must advance
25 also to keep pace with the time. We might as well

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1 require a man to still wear the coat that fit him as
2 a boy, as a civilized society to remain ever under the
3 regime of their barbarous ancestors."

4 Jefferson's words align with my view of why
5 the NRC must continue to examine itself, its processes
6 and approaches, to adapt them when necessary and to
7 reflect in good faith on experience gain and they reform
8 yet again when needed to meet new challenges.

9 (Foreign language spoken)

10 COMMISSIONER BURNS: The agency is
11 reformed and is always being reformed. Thank you for
12 your attention today, I'll be happy to answer your
13 questions.

14 (Applause)

15 MR. WEBER: So thank you, Commissioner.
16 That was a bit similar to, fully confident but never
17 fully satisfied. So a common theme in all three of our
18 presentations this morning, so I appreciate the
19 perspectives.

20 As you might well imagine, we got some
21 questions related to your comments on rule of law. How
22 does NRC ensure that its statutory mandate to protect
23 with reasonable assurance is interpreted appropriately
24 and consistently throughout NRC headquarters and the
25 regional offices?

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1 And a related question, how does NRC
2 management ensure NRC is not regulating to an
3 absolutely assurance standard?

4 COMMISSIONER BURNS: Well, I think there
5 are roles across the agency, from the Commission itself
6 down to the individual employee with the agency that
7 takes that on. I mean, part of our role, I think as
8 Commissioners, is we provide a general oversight.

9 We, in a sense, in our system of
10 governance, we are in effect a political accountability
11 for assuring that and assure consistency.

12 And again, I draw on my background as a
13 lawyer, and particularly as an American lawyer versed
14 in the common law we, as I think Commissioners, view,
15 and I think Chairman Svinicki alluded to this, we view
16 what our predecessors have done before us, as very
17 important and influencing how we come, come to that.

18 So, that's at the highest level. At a
19 management level, certainly with senior management,
20 and I experience this in terms of both general counsel
21 but as also first line supervisor, again, it's knowing
22 that agency experience, working through it,
23 communicating that to new employees, I think this was
24 a theme, for example my speech last year, about, we come
25 out of school, I come out of law school or somebody,

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1 chairman comes out of engineering school, if you come
2 directly to the NRC you don't know how necessarily to
3 be a regulator, you've got to be versed in the things
4 that are within the scope of our responsibility and then
5 be trained and learn how those things accomplish.

6 I think I take, for example, some
7 initiatives the EDO has done in the last couple years.
8 One of the things, issues that has come up, is the
9 question about sort of the fidelity of our application
10 of the backfit rule.

11 And I think to the EDOs credit and the
12 credit of other senior staff management instituting
13 better training, looking for the consistency issues
14 across the board, those are some of the efforts. So
15 there comes, it's a wonderful question because there
16 is, we could probably talk for hours in terms of what
17 the role of everyone in the agency is.

18 And did I miss the other one? What's the
19 other one?

20 MR. WEBER: Absolute assurance.

21 COMMISSIONER BURNS: Well, I think this
22 goes to, again, I stand by the answer I just gave, is
23 that's the role of supervision. That's not only the
24 supervisor, again, looking back on my own experience
25 in the agency, when you become more versed as an

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1 employee, when you're a more senior counsel within the
2 general counsel's office, if you're a more senior
3 project manager, you're there.

4 In part I think what you do, you need to
5 do, and I think our employees are encouraged to do, is
6 pass that knowledge, that experience, that shaping,
7 onto new folk. But there is a lot of, I think
8 accountability, across the agency in that area.

9 MR. WEBER: Okay. Similar question.
10 You said adequate protection is fluid over time, does
11 this mean that a plant's licensing basis is also fluid,
12 that it is something that evolves and is subject to
13 subsequent reinterpretation?

14 COMMISSIONER BURNS: Well, the licensing
15 basis, my answer is this, you have a licensing basis,
16 the way it is fluid overtime is if that basis has
17 changed. And that may mean, for example, if you have
18 a plant that is licensed in 1980, there are things that
19 have been added to that licensing basis since 1980.

20 It might be post-TMI for a 1980 plant. It
21 might be post-TMI requirements, it might be the
22 maintenance rule in 1990. If after the 2001 terrorist
23 attacks, where the security profile is,
24 post-Fukushima.

25 So, my view is not that, so much that the

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1 licensing basis is totally fluid and it's whatever we
2 want it to be in terms of what was adapted or adopted
3 at a part of time, but there is a discipline, I think,
4 in the process for backfitting, for the addition of new
5 requirements.

6 And those are the things where the
7 licensing basis accrues new aspects to it. But it's
8 not sort of saying, well, the licensing basis of 1980,
9 it's whatever I want it to be today.

10 MR. WEBER: Okay, thank you. This
11 commenter found your comments regarding the rule of law
12 as a refreshing reminder, so in light of that, what are
13 your thoughts on the government refusing to implement
14 the Nuclear Waste Policy act?

15 It seems that it's an excellent example of
16 the rule of man superseding the rule of law. This
17 person was really listening to your --

18 COMMISSIONER BURNS: Okay.

19 (Laughter)

20 COMMISSIONER BURNS: I don't think that's
21 what Plato had in mind.

22 (Laughter)

23 COMMISSIONER BURNS: But, seriously, this
24 is, yes, I'm not going to dive way into the Nuclear Waste
25 Policy Act debate, but this is one where the political

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1 process, you know, God bless it, has a lot of tension
2 in it. The fact of the matter is I could look at where
3 things are with that process and say, that's exactly
4 what the rule of law or the absence of pushing law has
5 taken us.

6 We know in this agency, and there are some
7 out there, we'll put my name on it or blame me for it,
8 in terms of when the agency basically stepped down from
9 review, but we had the mandamus. There's the rule of
10 law.

11 A court tells the agency, we had certain
12 amount of funding left, modest as it was, and he said,
13 you need to go and spend every last dime. That's part
14 of the rule of law.

15 But beyond that, I am within the rule of
16 law because I don't have any other appropriations, I
17 don't have a willing applicant. Or haven't had a
18 willing applicant up in the time. And so that
19 political process needs to work itself out.

20 MR. WEBER: Okay, thank you. The agency
21 has received our first application for a subsequent
22 license renewal, if NRC acts positively on that request
23 for another 20 years, will that greatly increase the
24 risk of nuclear accidents and what is NRC doing to
25 ensure safety for the subsequent license period?

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1 COMMISSIONER BURNS: Well, I don't see it
2 as substantially increasing the probability of
3 accidents, I think the staff has done, has been doing
4 its homework in terms of looking at, what is it in terms
5 of a subsequent license renewal, what is important for
6 the focus of the agency.

7 There is research that's been done, some
8 of it sponsored by the Department of Energy. We
9 incorporate those research results and focus on it.

10 So what I think where we've come to, this
11 is not, again, some arbitrary decision, okay, oh yes,
12 we're ready to go, this is really a matter of where we
13 have looked at a process, we have looked at what the
14 technical, we think are the significant technical
15 issues and are ready to move on that. We'll continue
16 to be informed by other experience and by other
17 research.

18 I think there is some other research that's
19 out there. You may know better than I, Mike. And
20 we'll continue to be informed by that. But I think
21 we've prepared ourselves to move forward in that area.

22 MR. WEBER: Okay. This question tracks
23 to your experience in international nuclear law.

24 COMMISSIONER BURNS: Okay.

25 MR. WEBER: The convention on physical

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1 protection in nuclear materials, CPPNM, addresses
2 international transport of nuclear material. The 2016
3 amendments to that convention extended its application
4 to domestic transport of nuclear material. What is NRC
5 doing to address this amendment?

6 COMMISSIONER BURNS: I think I'd have to
7 defer to some of the staff. I don't know immediately.
8 And I will be the first to confess, I am not a CPPNM
9 expert.

10 MR. WEBER: I think we have, through our
11 post-9/11 security requirements, imposed additional
12 requirements which bring us, generally, into
13 compliance with the 2016 amendments, but --

14 COMMISSIONER BURNS: Okay. Yes. But
15 maybe --

16 MR. WEBER: We can discuss it further.

17 COMMISSIONER BURNS: Yes.

18 MR. WEBER: And this comment comes on the
19 topic of culture. A transformation at the NRC, the
20 commenter recognizes that real transformation, as the
21 EDOs remarked, requires a change in culture, a change
22 in paradigm.

23 Since it's difficult to change culture
24 with the same leadership that implemented the current
25 paradigm, what is NRC doing to ensure that leadership

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1 is strong and effective in leading the cultural
2 transformation? This will be your last question.

3 (Laughter)

4 COMMISSIONER BURNS: So I don't get the
5 movie question? Okay, anyway.

6 MR. WEBER: We could.

7 COMMISSIONER BURNS: I'm already up to a
8 dozen.

9 MR. WEBER: Okay.

10 COMMISSIONER BURNS: I'm not avoiding,
11 I'm not avoiding this one.

12 MR. WEBER: Okay.

13 COMMISSIONER BURNS: So, yes. The
14 difficulty always is that things on transformation,
15 reformation, whatever, and it says, you've got folks
16 who've been steeped in it and steeped in the culture,
17 steeped in processes.

18 And in some respects, I hope that's so.
19 Because you need to be, have informed judgment that can
20 look at where you've been.

21 What you need is leaders that are open to
22 that kind of change or understanding that I may not
23 have, you know, I look back on that experience and we
24 really could have come through that better.

25 And that's when I refer to where I think,

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1 and again, using this phrase reformed and reforming,
2 I actually think, and over the course of my 40 years
3 associated with the NRC or at NEA looking back at the
4 NRC, I think that's where we have been as an agency.
5 Because I can think of those things about, you know,
6 the ROP.

7 I can remember Jim Taylor, the former EDO,
8 who I had a lot of respect for, but he was throwing
9 crockery in his office, so to speak. Because, and I
10 don't blame, I might have a couple shards left over --

11 (Laughter)

12 COMMISSIONER BURNS: -- I ducked when it,
13 but Jim was frustrated over things like the Millstone
14 event and the Maine Yankee event.

15 And says, why can't we get ahead of this,
16 you know, we tried in terms of evolving with the SOW
17 (phonetic) program for assessment in the 1980's but it
18 just wasn't doing it.

19 So, it's those types of things, yes, I've
20 been involved with this process but I'm honest enough
21 to face in the mirror and say, something has got to move.
22 And I think that's what it is.

23 And some of these folks, like Vic, Bill
24 Dean, some others, were involved as some of this came
25 about. So that, you know, yes.

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1 I also agree, having sort of fresh
2 perspectives, having people come in, new folks come in
3 who are outside of the club, if you will, that's a good
4 thing too. But all of, you know, we all have, I think
5 as leaders or as effective leaders, asking ourselves
6 where is the opportunity to change.

7 What is it, the old thing about the Roman
8 Emperor is riding into on the chariots into Rome, or
9 whatever, and you always had the person there, all is
10 vanity, all is vanity wisping in the air. Well, we kind
11 of need that too.

12 (Laughter)

13 COMMISSIONER BURNS: No, I'm sorry.
14 We're not going to hire somebody to do that, we have
15 limited FTE but --

16 (Laughter)

17 COMMISSIONER BURNS: -- it's the notion,
18 that's the notion is that that's the notion in the back
19 of your head asking yourself those types of questions.

20 MR. WEBER: Very good. Commissioner,
21 thank you very much. You didn't ask for the movie.

22 (Applause)

23 MR. WEBER: This brings to a conclusion
24 our plenary session. If you'd like to talk to the
25 Commissioner about his favorite movie or how he relates

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1 his experience at the Commission to the movie, please
2 engage.

3 And join us back for the first technical
4 sessions, which will commence promptly at 1:30.
5 Technical sessions T1 through T5. Thank you very much.

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