



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 15, 2019

MEMORANDUM TO: All Staff who Support the Nuclear Reactor Safety Program

FROM: Ho K. Nieh, Director */RA/*  
Office of Nuclear Reactor Regulation

SUBJECT: APPLYING THE PRINCIPLES OF GOOD REGULATION AS A RISK-  
INFORMED REGULATOR

The U.S. Nuclear Regulatory Commission (NRC) is transforming to become a modern, risk-informed regulator and this is an exciting time of change at our agency. Our workload and workforce continue to evolve. For example, electricity market forces are reshaping the operating reactor fleet, new technologies are seeking regulatory reviews and the next generation of nuclear safety professionals is emerging. As such, we must continuously be ready to embrace change in meeting our mission in new and innovative ways. Going forward, the vision for the Nuclear Reactor Safety Program is that:

**We make SAFE use of nuclear technology POSSIBLE.**

Today marks a new beginning with the major reorganization of the Office of Nuclear Reactor Regulation taking effect. We should appreciate the many things and strengths that have served us well up to this point. At the same time, we must stand ready to embrace new and innovative ways to better meet our mission, such as by using modern technology, working smarter and focusing our attention on the things that matter the most.

Our success in this dynamic environment depends on our ability as individuals and as a team to adapt our behaviors and practices to achieve our mission of reasonable assurance<sup>1</sup> of adequate protection of public health and safety, perhaps in ways that are substantially different than before. To help us confidently do our jobs even better, the NRC's Principles of Good Regulation will continue to be our guide for agency decision-making and individual behavior, exactly as the Commission intended<sup>2</sup>. Familiarize yourself with these Principles and make them your instincts.

The attachment to this memo is intended to be a desktop guide to help align our decision-making and behaviors with the Principles of Good Regulation and with being risk-informed<sup>3</sup>. The desktop guide is not all-inclusive, but it is a good place to start when you apply the Principles of Good Regulation in your work. I look forward to working together with all of you to become the modern, risk-informed regulator we are striving to be.

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<sup>1</sup> Discussions on reasonable assurance can be found in memoranda available at ML18240A410 and ML19015A290

<sup>2</sup> <https://nrcpublicblog.files.wordpress.com/2017/01/principles-of-good-regulation-announcement-january-17-1991.pdf>

<sup>3</sup> SRM-SECY-98-144, "White Paper on Risk-Informed and Performance-Based Regulation" (ML003753601)

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## Some Key Questions for Practical Application of the Principles of Good Regulation

 <b>Independence</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Does my decision create trust in the NRC to be an objective, competent regulator?</li> <li><input type="checkbox"/> Did I apply enough of my own expertise, experience and analytical tools beyond what the licensee or applicant provided?</li> <li><input type="checkbox"/> Is my decision free from undue or unreasonable pressure from interested parties?</li> <li><input type="checkbox"/> Am I confident that my decision was not made in isolation?</li> <li><input type="checkbox"/> Have I considered viewpoints of all those who may be affected by this decision?</li> </ul>
 <b>Openness</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Is this a high interest decision or issue that warrants additional measures for early engagement, public transparency and/or participation?</li> <li><input type="checkbox"/> Have I considered whether additional communications are needed with the licensee or applicant, Congress, other federal and state government agencies, non-governmental organizations, local citizens or the international community?</li> <li><input type="checkbox"/> Have I taken steps such that those affected will not be surprised by this decision?</li> </ul>
 <b>Efficiency</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Does my decision achieve the desired result in the most cost-effective way?</li> <li><input type="checkbox"/> Is my level of effort commensurate with the safety or security significance?</li> <li><input type="checkbox"/> Have I met the standard of reasonable assurance, not more and not less? If I am not sure, have I sought advice or elevated the matter so that I will not expend unnecessary effort or expense?</li> <li><input type="checkbox"/> Have I considered process improvements to be more effective and efficient?</li> </ul>
 <b>Clarity</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Am I clear on the regulatory bases for my decision? Is my work tied directly to NRC requirements?</li> <li><input type="checkbox"/> Have I clearly and concisely explained the regulatory decision or position?</li> <li><input type="checkbox"/> Have I developed key messages that are safety-focused and appropriate for the audience?</li> <li><input type="checkbox"/> Am I prepared to deliver my key messages in a succinct way that is not dull? Have I practiced and rehearsed my delivery?</li> </ul>
 <b>Reliability</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Did I consider the risk triplet: What can go wrong? How likely is it? What are the consequences? The risk triplet can be considered for all decisions, technical and corporate.</li> <li><input type="checkbox"/> Have I applied a “risk-informed” approach that considered risk insights along with other factors (e.g., defense-in-depth, safety margins and risk mitigation actions) to focus regulatory attention commensurate with the safety and security significance?</li> <li><input type="checkbox"/> Is my decision supported by reliable data and/or the best available information (e.g., domestic or international research and operating experience)?</li> <li><input type="checkbox"/> Have I considered the relevant uncertainties in my evaluation?</li> <li><input type="checkbox"/> Have the appropriate backfitting or forward fitting standards been considered in my decision-making?</li> <li><input type="checkbox"/> Is my decision fair and is it timely?</li> </ul>