NRCExecSec Resource

From: PIETRANGELO, Tony <arp@nei.org>
Sent: Wednesday, March 05, 2014 12:55 PM
Subject: Industry Concerns on SECY-13-0137, "Recommendations for Risk-Informing the Reactor Oversight Process for New Reactors"
Attachments: 03-05-14_NRC_Industry Concerns on SECY-13-0137, Recommendations for Risk-Informing the Reactor Oversight Process for New Reactors.pdf

Follow Up Flag: Follow up
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March 5, 2014

The Honorable Allison M. Macfarlane
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Industry Concerns on SECY-13-0137, "Recommendations for Risk-Informing the Reactor Oversight Process for New Reactors"

Project Number: 689

Dear Chairman Macfarlane:

On behalf of the nuclear industry, the Nuclear Energy Institute (NEI) wishes to provide its perspective and express concern about SECY-13-0137, sent to the Commission in December 2013.

We are pleased to see that the staff concludes that shortcomings outweigh benefits of the relative risk approach for determining the significance of inspection results for new reactors. While we understand concerns of the Advisory Committee on Reactor Safeguards and others that have driven interest in the relative risk approach for some time, we believe it is vital for the U.S. Nuclear Regulatory Commission (NRC) and the industry to focus on matters of greatest safety significance. The relative risk approach would divert industry and NRC attention to matters of minimal safety significance, undermining the fundamental premise of the risk-informed Reactor Oversight Process (ROP). Thus, we concur with the staff that it would be inappropriate to employ a relative risk approach in applying the ROP to new plants.

We are concerned about the staff's recommendation to develop a new process for significance determination for new reactors. Our concerns are three-fold.

First, Commission approval of Recommendation 1 of the SECY must be viewed as a fundamental change in the ROP for *all* plants, not just a slight modification applicable only to new plants. Such a fundamental change ought to be undertaken with great deliberation and only when there is abundant evidence that the existing ROP is broken. It is not. The SECY states that the new-plant process "...*can* be applied to the existing fleet of

operating reactors" [emphasis added], but, as acknowledged by the staff in public meetings, it inevitably *would* be applied to the existing fleet. The SECY diminishes this very significant consequence by suggesting how long it will take (i.e., how slowly it will proceed), and how much the staff will work with stakeholders to develop and vet the new-plant process.

Moreover, we do not yet have a base of new-plant operating experience that would provide a foundation for this change. In other new-plant areas, the staff itself has denied new plants the ability to implement risk-informed regulatory improvements on the basis of limited operating experience at the time of startup. In the same sense, we believe it would be imprudent and wasteful for the NRC to proceed with fundamental changes to the ROP without that new-plant operating experience base.

Second, if the Commission approves SECY Recommendation 1, the Commission risks further complicating the significance determination process (SDP) for *all* plants. Although Recommendation 1 asks for permission merely to begin exploring the addition of qualitative factors to the SDP, the staff's proposed approach actually goes far beyond what the Commission asked for with SRM-SECY-12-0081 (i.e., a technical justification for backstops). Instead of that technical justification, the staff proposes to develop a more complex framework for significance determination for new reactors. The staff's proposed additional layer of qualitative factors does not represent a true integrated risk-informed approach, but rather a supplementary layering of subjective factors that would add to the difficulty of reaching consensus on risk significance. We already have difficulty in reaching alignment on inputs to the quantitative approach in use today. The staff's proposed approach would increase the level of NRC and industry resources for matters of extremely low safety significance. At a time when the industry and NRC are focused on managing the cumulative impacts of regulatory and industry actions, we believe the NRC and industry would be better served by efforts to make the existing SDP process more efficient, not more burdensome, subjective, and complex.

Third, SECY Recommendation 1 would change the ROP to solve a problem that is not in evidence—the concern that plants having greater design safety margins will choose not to protect and preserve those margins. After investing billions of dollars to construct a new plant, owners can be expected to protect the greater margins inherent in that advanced design. The Commission has previously stated that it has a reasonable expectation that vendors and utilities will cooperate with the Commission in assuring that the level of enhanced safety achieved with these new designs will be reasonably maintained. Supporting this view are rigorous change control requirements applicable to new plants as well as the requirement for a reliability assurance program. As expressed in ISG DC/COL-ISG-018, the design reliability assurance program protects design margins during construction, and a combination of programs preserve design margins during the transition to operations and for the life of the operating plant. Furthermore, the new plants are required to have probabilistic risk assessments (PRA) that meet endorsed consensus standards and to report updates to the PRA results periodically through the final safety analysis report update rule. These requirements already assure that any core damage frequency degradation would be evident to the NRC, allowing the agency to take appropriate action if it finds that safety margins at new plants are not being adequately maintained.

When the staff embarked on this project years ago, the expectation was for dozens of new plants to be added to the existing fleet over the next decade or so. Clearly, the pace of new-plant development has substantially slowed since then. To us, this also substantially diminishes any potential value to be gained from implementing the recommendations of SECY-13-0137 at this time. In addition, in the years since this project began, the demand on the NRC's and the industry's resources, especially risk analysis resources needed for projects like this one, has increased substantially. Thus, the impact of both recommendations in SECY-13-0137 on both

NRC and industry resources is far greater today than ever before. We believe the diminished benefit and increased impact argue for *not* approving SECY-13-0137 at this time.

We appreciate the efforts the staff has made to include stakeholders in their deliberations on this important topic. With the changing circumstances in new-plant development and cumulative impacts across the industry, we believe this is not the time to embark on a fundamental change to the ROP that would further complicate the significance determination process and pull resources from more safety significant activities. We urge the Commission to *not* approve SECY-13-0137 at this time.

If you have any questions on this matter, please contact Victoria Anderson (202-739-8101; vka@nei.org), James Slider (202-739-8015; jes@nei.org) or me.

Sincerely,

Anthony R. Pietrangelo
Senior Vice President and Chief Nuclear Officer

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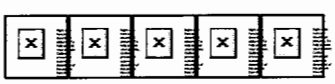

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NUCLEAR ENERGY INSTITUTE

March 5, 2014

The Honorable Allison M. Macfarlane
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Industry Concerns on SECY-13-0137, "Recommendations for Risk-Informing the Reactor Oversight Process for New Reactors"

Project Number: 689

Dear Chairman Macfarlane:

On behalf of the nuclear industry, the Nuclear Energy Institute (NEI)[1] wishes to provide its perspective and express concern about SECY-13-0137,[2] sent to the Commission in December 2013.

We are pleased to see that the staff concludes that shortcomings outweigh benefits of the relative risk approach[3] for determining the significance of inspection results for new reactors. While we understand concerns of the Advisory Committee on Reactor Safeguards and others that have driven interest in the relative risk approach for some time, we believe it is vital for the U.S. Nuclear Regulatory Commission (NRC) and the industry to focus on matters of greatest safety significance. The relative risk approach would divert industry and NRC attention to matters of minimal safety significance, undermining the fundamental premise of the risk-informed Reactor Oversight Process

[1] The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

[2] SECY-13-0137, "Recommendations for Risk-Informing the Reactor Oversight Process for New Reactors," Mark A. Satorius, Executive Director for Operations, December 17, 2013, ADAMS Accession Number ML13263A351.

[3] The relative risk approach judges the significance of a change in conditions relative to the baseline risk (e.g., core damage frequency) of the plant in question, rather than against an industry-wide value.

(ROP). Thus, we concur with the staff that it would be inappropriate to employ a relative risk approach in applying the ROP to new plants.

We are concerned about the staff's recommendation to develop a new process for significance determination for new reactors. Our concerns are three-fold.

First, Commission approval of Recommendation 1 of the SECY must be viewed as a fundamental change in the ROP for *all* plants, not just a slight modification applicable only to new plants. Such a fundamental change ought to be undertaken with great deliberation and only when there is abundant evidence that the existing ROP is broken. It is not. The SECY states that the new-plant process "...*can* be applied to the existing fleet of operating reactors" [emphasis added], but, as acknowledged by the staff in public meetings, it inevitably *would* be applied to the existing fleet. The SECY diminishes this very significant consequence by suggesting how long it will take (i.e., how slowly it will proceed), and how much the staff will work with stakeholders to develop and vet the new-plant process.

Moreover, we do not yet have a base of new-plant operating experience that would provide a foundation for this change. In other new-plant areas, the staff itself has denied new plants the ability to implement risk-informed regulatory improvements on the basis of limited operating experience at the time of startup. In the same sense, we believe it would be imprudent and wasteful for the NRC to proceed with fundamental changes to the ROP without that new-plant operating experience base.

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[4] Excerpted from SRM-96-077, December 6, 1996.

If you have any questions on this matter, please contact Victoria Anderson (202-739-8101; vka@nei.org), James Slider (202-739-8015; jes@nei.org) or me.

Sincerely,

Anthony R. Pietrangelo

c: The Honorable Kristine L. Svinicki, Commissioner, NRC
The Honorable George Apostolakis, Commissioner, NRC
The Honorable William D. Magwood IV, Commissioner, NRC
The Honorable William C. Ostendorff, Commissioner, NRC
Mr. Mark A. Satorius, Executive Director for Operations, NRC
Mr. Eric J. Leeds, Director, Office of Nuclear Reactor Regulation, NRC
Mr. Joseph G. Giitter, Director, Division of Risk Assessment, NRR, NRC
Mr. Glenn M. Tracy, Director, Office of New Reactors, NRC