

April 9, 2014

MEMORANDUM TO: Chairman Macfarlane  
Commissioner Svinicki  
Commissioner Apostolakis  
Commissioner Magwood  
Commissioner Ostendorff

FROM: Mark A. Satorius */RA/*  
Executive Director for Operations

SUBJECT: CUMULATIVE EFFECTS OF REGULATION AND RISK  
PRIORITIZATION INITIATIVE: UPDATE ON RECENT  
ACTIVITIES AND RECOMMENDATIONS FOR PATH FORWARD

Purpose:

The purposes of this memorandum are to: (1) seek Commission approval on a path forward that enables the staff to merge the deliverables associated with the Cumulative Effects of Regulation (CER) and the staff's response to Staff Requirement Memorandum (SRM) COMGEA-12-0001/COMWDM-12-0002, "Proposed Initiative to Improve Nuclear Safety and Regulatory Efficiency," (U.S. Nuclear Regulatory Commission's (NRC) Agencywide Documents Access and Management System (ADAMS) Accession No. ML13037A541) consistent with the staff's merger of the two efforts for power reactors; and (2) inform the Commission of the staff's plan to participate in demonstration pilot exercises of a proposed plant-specific prioritization process.

Summary:

The staff is currently implementing a number of tasks in response to Commission direction on CER (SRM-SECY-12-0137, "Implementation of the Cumulative Effects of Regulation Process Changes," dated October 5, 2012, (ADAMS Accession No. ML13071A635) and the Risk Prioritization Initiative (RPI). RPI is the term the staff selected to refer to its response to

CONTACTS: Tara Inverso, NRR/DPR  
301-415-1024

Antonios Zoulis, NRR/DRA  
301-415-1209

SRM-COMGEA-12-0001/COMWDM-12-0002. The two SRMs directed the staff to provide two separate deliverables: a July 2014 Commission paper on RPI and a March 2015 Commission paper on CER. In light of the relationship between CER and RPI and recent activities to consider these efforts jointly, the staff is requesting Commission permission to merge the two deliverables into one common deliverable that would address the direction on CER and RPI. This paper also informs the Commission of the staff's plans to participate in demonstration pilot exercises of a proposed plant-specific prioritization process.

While the demonstration pilot exercises will evaluate a process proposed by industry, the staff notes that the CER/RPI deliverable will, consistent with Commission direction, describe options that would allow licensees to propose a plant-specific prioritization of regulatory actions based on risk significance and could incentivize the development and use of high-quality probabilistic risk assessments (PRAs).

#### Background:

##### *Commission Direction on CER*

The NRC staff's effort on CER began with the Commission's direction in SRM M091208, "Briefing on the Proposed Rule: Enhancements to Emergency Preparedness Regulations," dated January 13, 2010, (ADAMS Accession No. ML100130067). That SRM directed the staff to consider whether the schedule for implementing the new emergency preparedness rulemaking and future rulemakings should be influenced by the aggregate impact of the new and recently issued regulations already scheduled for implementation. Since then, the NRC staff has prepared two Commission papers on CER. The first, SECY-11-0032, "Consideration of the Cumulative Effects of Regulation in the Rulemaking Process," dated March 2, 2011, (ADAMS Accession No. ML110190027), described several rulemaking process enhancements that would address CER. The Commission approved the enhancements in SRM-SECY-11-0032, dated October 1, 2011, (ADAMS Accession No. ML112840466).

The staff developed an additional paper, SECY-12-0137, "Implementation of the Cumulative Effects of Regulation Process Changes," dated October 5, 2012, (ADAMS Accession No. ML12223A162), which built on the staff's proposals in SECY-11-0032 and responded to the additional Commission direction. The Commission provided further direction to the staff in SRM-SECY-12-0137. The staff is currently implementing various tasks in response to direction, that the staff:

- Consider any expansion of CER in the broader context of actions directed from COMGEA-12-0001/COMWDM-12-0002.
- Develop and implement outreach tools that will allow the NRC to consider the overall impacts of regulatory actions on licensees and their ability to focus effectively on items of greatest safety importance, in a comprehensive manner.
- Gather input from all interested external parties on the effectiveness of the NRC's CER process and providing an implementation status report to the Commission.
- Engage with the Agreement States, broadly, on the cumulative effects of the NRC's regulatory actions on the conduct of their Agreement State programs.
- Engage industry to seek volunteer facilities to perform case studies to review the accuracy of cost and schedule estimates used in the NRC's regulatory analyses.

*Recent Agency-Wide Activities on CER*

The staff has conducted several public meetings on CER to obtain stakeholder feedback to inform the response to the Commission direction in SRM-SECY-12-0137. The table below summarizes the recent interactions:

<b>Date</b>	<b>Purpose</b>	<b>Meeting Summary (ADAMS Accession No.)</b>	<b>Associated Correspondence (ADAMS Accession No.)</b>
May 8, 2013	<ul style="list-style-type: none"> <li>• Inform public of Commission direction in SRM-SECY-12-0137</li> <li>• Invite industry to participate in regulatory analysis case studies</li> </ul>	ML13135A267	ML13143A299 (Nuclear Energy Institute (NEI) follow-up letter dated May 21, 2013)
September 19, 2013	<ul style="list-style-type: none"> <li>• Obtain an update on regulatory analysis case studies</li> <li>• Discuss the expansion of CER to other regulatory actions</li> <li>• Discuss NEI's development of a CER template</li> </ul>	ML13267A228	
January 28, 2014	<ul style="list-style-type: none"> <li>• Obtain an update on NEI's case studies of the NRC's regulatory analyses</li> </ul>	ML14031A204	ML14028A455 (NEI's handout with final case study recommendations)

An update on the CER case studies to investigate the accuracy of cost and schedule estimates in regulatory analyses is provided in Enclosure 1, "Update on the Cumulative Effects of Regulation Case Studies to Investigate the Accuracy of Cost and Schedule Estimates in Regulatory Analyses" to this COMSECY. Enclosure 2, "Update on the Cumulative Effects of Regulation Template," provides an update on the CER template proposed by NEI in May 2012 to determine the viability and priority of a new rulemaking activity to this COMSECY.

*Recent Fuel Cycle CER Activities*

To address CER on fuel cycle licensees, the staff has developed a Fuel Cycle Integrated Schedule of Regulatory Activities ("Integrated Schedule") to address CER. This Integrated Schedule provides a Gantt chart of the significant regulatory activities, the major milestones, and the scheduled public interactions over the next 4 years. Staff meets quarterly with industry and other stakeholders to discuss the status of items on the Integrated Schedule. Additional information on fuel cycle CER is described in Enclosure 3, "Update on the Integrated Schedule of Regulatory Activities for Fuel Cycle Facilities," to this COMSECY.

*Recent Agreement State CER Activities*

To address Agreement State CER issues, staff has expanded upon its cooperative efforts and activities with States to ensure that the Agreement States are fully engaged on the CER efforts. Some of these activities have included informing the Agreement States of all CER public meetings, routinely providing CER updates during the monthly Organization of Agreement States (OAS) and Conference of Radiation Control Program Directors (CRCPD) teleconferences and an NRC presentation on CER at the 2013 Annual CRCPD meeting. In addition, OAS accepted an invitation from staff to participate on the agency's CER working group and assigned an OAS representative. With decades of cooperative partnership between Agreement State Programs and the NRC, a strong foundation has been laid and mechanisms are in place to address Agreement State CER issues. These include early Agreement State review of all draft proposed and final rules to solicit their comments before rules are sent to the Commission, and participation in the NRC-OAS co-chaired Standing Committee on Compatibility (SCC). The SCC, which is part of the materials rulemaking process, reviews, discusses and provides a consensus decision on matters of regulatory compatibility to ensure consistency in applying the agency's policy on adequacy and compatibility. The staff and Agreement States will continue to examine the current framework of NRC and Agreement State interactions in light of the overall agency CER efforts and determine the appropriate strategies for further addressing Agreement State CER issues. Options for future consideration could include incorporation of CER issues into established processes for Agreement State/NRC working group priorities, factoring Agreement State views on regulatory priority into the Common Prioritization of Rulemaking process and allowing some flexibility to the Agreement States for the existing 3 year implementation policy to adopt NRC amendments to the regulations. The staff will provide an update of these activities in the follow-on Commission paper.

*Commission Direction on Proposed Initiative to Improve Nuclear Safety and Regulatory Efficiency*

On November 5, 2012, Commissioners Apostolakis and Magwood issued COMGEA-12-0001/COMWDM-12-0002, which described an initiative that could:

Enhance safety by applying probabilistic risk assessment to determine the risk significance of current and emerging reactor issues in an integrated manner and on a plant-specific basis....Such prioritization, if approved, should both speed a licensee's completion of the most important new safety measures and also address the challenges licensees face implementing new regulatory positions, programs, and requirements, i.e., the cumulative effects of regulation.

The paper stated that a benefit of the initiative would be the incentive for licensees to develop high-quality PRAs that would support enhanced safety.

In SRM-COMGEA-12-0001/COMWDM-12-0002, "Proposed Initiative to Improve Nuclear Safety and Regulatory Efficiency," the Commission directed the staff to:

- Develop a notation vote paper that provides approaches for allowing licensees to propose to the NRC a prioritization of the implementation of regulatory actions as an integrated set and in a way that reflects their risk significance on a plant-specific basis.

- Address issue management under such a regime, explore the use of a backstop under such a process to ensure that issues will be resolved and regulations implemented in a timely manner, and explore allowing licensees to propose alternative actions.

The staff formed an inter-office working group to consider the initiative and associated options, and coined the term “Risk Prioritization Initiative” for this work.

#### *Recent Activities on RPI*

The NRC staff conducted its first RPI public meeting on April 24, 2013. The summary of that public meeting is available (ADAMS Accession No. ML13135A075). During that meeting, NEI indicated that there was no interest in, or resources for, a prioritization process that would require full Level 1 or Level 2 PRAs at this time. However, there is industry interest in exploring a prioritization process that would use risk information to prioritize regulatory actions. NEI subsequently submitted a draft process for prioritization on October 1, 2013, (ADAMS Accession No. ML13276A155).

NEI’s draft process consists of two main elements: generic prioritization performed by a Generic Assessment Evaluation Team (GAET) and plant-specific prioritization/scheduling performed by the Integrated Decision Making Panel (IDP), which is a panel of licensee experts cognizant of the specific plant. The purpose of the GAET is to provide generic safety impact information and attributes to the industry. The IDP uses the information from the GAET, as applicable, as well as plant-specific risk insights, to make the plant-specific determinations on the safety impact of each issue/activity. The draft process is “modeled on previous and successful risk-informed activities, such as the NRC Reactor Oversight Process, Maintenance Rule, and the Severe Accident Mitigation Alternatives (SAMA) approach for license renewal. In addition, the general approach of the [Title 10 of the *Code of Federal Regulations*] 50.59 guidance, which is broadly and successfully used to enable plant modifications, is incorporated.” For a detailed discussion of NEI’s draft process, please refer to the most current version available (ADAMS Accession No. ML13276A228).

The table below summarizes additional public meetings on RPI:

<b>Date</b>	<b>Purpose</b>	<b>Meeting Summary (ADAMS Accession No.)</b>	<b>Associated Correspondence (ADAMS Accession No.)</b>
May 22, 2013	<ul style="list-style-type: none"> <li>• Discuss NEI’s draft comments and proposal on the Commission’s proposed initiative.</li> </ul>	ML13171A110	ML13150A105 (Industry comments on proposed initiative dated May 28, 2013)
November 6, 2013	<ul style="list-style-type: none"> <li>• Provide an update on CER and RPI</li> <li>• Provide forum for NEI to present its draft process for RPI</li> </ul>	ML13316B426	ML13276A155 (NEI’s draft guidance for RPI dated October 1, 2013)

December 18-19, 2013	• Observe generic tabletop exercises of NEI's draft guidance	ML14015A090
----------------------	--	-------------

During these public meetings, the industry reiterated its sentiment that there are currently no licensees interested in participating in RPI at this time if it requires full-scope Level 1 and Level 2 PRAs. However, the industry did note that current and available risk information and draft guidance provided by NEI could be used to prioritize regulatory activities. Further, NEI's draft process dated October 1, 2013, stated it is consistent with an approach "for incentivizing industry to develop a more complete suite of PRA models" including a broader scope of Level 1 and Level 2 PRA models.

NEI conducted, and the NRC staff observed, generic tabletop exercises of its draft guidance during the December 18-19, 2013, public meeting. During that public meeting an industry team of experts (i.e., the GAET), demonstrated how they would perform generic prioritizations. The following activities were evaluated: (1) Severe Accident Management Guidelines and Emergency Operating Procedures Integration; (2) Mitigating Strategies for Beyond-Design-Basis External Events; (3) Flooding Hazard Reevaluation; (4) Cyber Security; and (5) Reliable Spent Fuel Pool Instrumentation. The NRC staff provided comments and feedback during that public meeting, and NEI revised the guidance accordingly in preparation for the February and March 2014 plant-specific tabletop exercises.

NEI, in collaboration with the industry, then conducted, and the staff observed, plant-specific tabletop exercises at Xcel Energy offices on February 20 – 21, 2014, H.B. Robinson on March 6 – 7, 2014, and V.C. Summer on March 13 – 14, 2014. These exercises were useful in gaining an understanding of how an IDP and a panel of subject-matter experts (SMEs) could evaluate and assess various regulatory activities and plant initiatives. The IDP asked challenging questions and engaged in fruitful conversation, which resulted in seemingly suitable assessments and priority level assignments. The tabletop exercises also provided the first glimpse of how individual activities would be relatively ranked against each other. For a more detailed discussion of the tabletop exercises, please refer to the associated trip report (ADAMS Accession No. ML14079A636).

#### Discussion:

##### *Relationship Between RPI and CER*

After evaluating the objectives of RPI and CER, the staff identified a strong relationship between RPI and CER for operating reactors. As indicated in COMGEA-12-0001/COMWDM-12-0002, RPI could be a tool that operating reactors could use to address CER by using risk-information to prioritize regulatory activities. The staff believes that RPI would have to be closely coordinated with CER activities. The staff also believes that the use of RPI could provide a practical means of focusing power reactor licensee attention and resources on the most safety significant actions first while also improving some of the noted difficulties that CER can create, such as limited resources to implement new and complex regulatory actions.

The staff notes that the scope of the CER effort extends across all business lines and categories of licensees. RPI, on the other hand, if implemented, would provide an effective tool

to implement CER for operating power reactor licensees, but other processes could address CER for non-reactor licensees. In addition, the agency's CER efforts primarily focus on rulemaking process enhancements that increase and improve interactions with the public in order to create rules that are more clearly written, have associated guidance available with the proposed and final rule, and have implementation schedules that are achievable in light of other ongoing activities facing the licensees. Further, the NRC staff is considering whether to extend CER beyond rulemaking and is working with industry representatives to perform case studies to improve the accuracy of cost and schedule estimates in NRC's regulatory analyses.

In sum, while the scope of CER is broader than the scope of RPI, the staff involved in each effort (CER and RPI) is closely coordinating and following the activities in both areas, because the results of the efforts in RPI can have significant impact on CER for operating reactors. Hence, to improve both efforts, the staff believes that the best approach is to implement a consolidated set of activities and products for the Commission's consideration. Based on ongoing discussions with industry, there is a natural feedback between CER and RPI that bolsters the case for aligning both activities closely.

#### *Next Steps*

In order for the staff to develop options on how to implement RPI, the staff intends to actively participate in demonstration pilot exercises being planned by the industry. In NEI's letter dated March 19, 2014, (ADAMS Accession No. ML14078A487), six plants are planning demonstration pilot exercises, which could start in the near-term after a planned update of the prioritization guidance. Prior to these demonstration pilots, the staff and industry will need to agree on the exercises' expectations to ensure appropriate depth and quality of information for staff to present viable options to the Commission for consideration. The staff will need to reach agreement with industry on: 1) the pilot objectives and scope; 2) the number and names of pilot plants for NRC participation; 3) the approach to prioritization; and 4) the regulatory methods used to disposition changes identified during the prioritization, including any appropriate backstops to ensure regulatory requirements aren't deferred indefinitely.

The industry has expressed its expectation that the NRC consider actual schedule changes as a result of the demonstration pilot exercises (i.e., these would not be simulated activities like the recent tabletops, which did not have impact in terms of changes to regulatory activities). Some NRC regulatory requirements to be reviewed by the pilots include the post-Fukushima orders, cyber security, and National Fire Protection Association (NFPA)-805 compliance, in addition to rulemaking activities (e.g., the fatigue rule). Plant-initiated modifications not related to regulatory requirements but having safety impacts might also be included in the prioritization exercises.

The staff is currently evaluating options within the regulatory framework for how the schedule changes could be efficiently reviewed and implemented. Two such possibilities could be exemptions to existing regulations or modifications to existing Orders. Developing a regulatory structure that could support such an initiative, including appropriate oversight and enforcement, would need to be evaluated against the resources required for implementation. The staff will test these regulatory options as part of the demonstration pilots. Such testing will enable the staff to gain insights on issues to be addressed when developing a more formal regulatory structure that supports risk-informed schedule changes. The staff will document the options

considered and the staff's recommended approach for authorizing changes to schedules, if any, in a notation vote paper. Actual schedule changes would only be made after Commission endorsement of such an approach.

### *Proposed Deliverables*

The staff is currently tasked with the following deliverables on RPI and CER:

- Notation vote paper on RPI due July 2014 (WITS201300061)
- Notation vote paper on CER due March 2015 (WITS 0201300055)

Because of the interrelationship of RPI and CER, and because of the planned activities on RPI described in this paper, the staff requests that the two separate deliverables be replaced with one deliverable (i.e., a notation vote paper) that responds to both SRM-SECY-12-0137 and SRM-COMGEA-12-0001/COMWDM-12-0002. The staff further requests that the common deliverable be due in March 2015, the existing due date for the CER vote paper. This date would allow NRC staff to gain insights from the proposed RPI piloting activities that would include actual implementation of the prioritization of regulatory activities based on NEI's draft guidance. A March 2015 due date would also allow the staff to further consider the CER open items (e.g., lessons learned from CER case studies and expansion of CER beyond rulemaking). Hence, to provide a concise, integrated approach that responds to the Commission direction on each effort, the staff recommends implementing a consolidated set of activities and products for the Commission's consideration.

In the proposed joint deliverable, the staff will address the Commission's directions on RPI and CER. The staff will provide options for implementing RPI, and will describe how those options may incentivize PRA enhancements, including the potential development and use of high quality PRAs consistent with COMGEA-12-0001/COMWDM-12-0002. In addition, the staff will provide lessons learned and recommendations on CER, an update on the CER case studies on regulatory analyses, and respond to the other items listed in SRM-SECY-12-0137.

### *Interactions with the Advisory Committee on Reactor Safeguards (ACRS)*

The CER effort is focused on process improvements related to scheduling matters and enhancing communication with the public. As such, the staff does not plan to interact with the ACRS on matters related to CER. The RPI effort is currently in an exploratory phase and the staff will provide options to the Commission in the March 2015 paper. As the staff further develops the RPI framework, the staff will engage with ACRS at an appropriate time after the March 2015 paper.

### Resources:

Resources for the CER deliverables are currently budgeted in the Operating Reactors business line, Rulemaking product line, for fiscal year (FY) 2014 and FY 2015. The staff notes that no resources are currently budgeted for RPI work in FY 2014 or FY 2015. The staff's work on RPI in FY 2014 is unfunded work, which would be unaffected by the staff's request to merge the RPI and CER deliverables. An early estimate of the resources needed to support the CER and RPI deliverables is provided in Enclosure 4, which is non-public.

Since RPI is unfunded in FY 2014 and FY 2015, the staff will shift resources from Significance Determination Process enhancements, risk-informed licensed amendment reviews, Fukushima Tier 3 Activities, Topical Report Reviews, Information Notices/Regulatory Issue Summaries, and 10 CFR 50.55a rulemaking activities (the Office of Nuclear Reactor Regulation rulemaking and licensing support resources).

Work on the CER and RPI deliverables will continue into FY 2016. In addition, any additional resources needed for FY 2015 and FY 2016 to address the options that arise from RPI will be described in the combined Commission paper on CER and RPI. In addition, the staff will request through the planning, budgeting, and performance management process the additional resources needed in FY 2016 for CER deliverables.

Recommendation:

The staff recommends that the Commission:

1. Approve the staff's plan to replace the current CER and RPI taskings with one Commission notation vote paper that responds to both the CER and RPI directions, consistent with the staff's consolidation of the two efforts for power reactors. This notation vote paper would be due on March 31, 2015.

SECY, please track.

Enclosures:

As stated.

cc: SECY  
OGC  
OCA  
OPA  
OCFO

## **Update on the Cumulative Effects of Regulation Case Studies to Investigate the Accuracy of Cost and Schedule Estimates in Regulatory Analyses**

### *Commission Direction*

In its staff requirements memorandum to SECY-12-0137, "Implementation of the Cumulative Effects of Regulation [CER] Process Changes," dated March 12, 2013 (the U.S. Nuclear Regulatory Commission's (NRC's) Agencywide Documents Access and Management System (ADAMS) Accession No. ML13071A635), the Commission directed that the staff seek industry volunteers to perform case studies on the accuracy of the NRC's regulatory analyses. Specifically, the Commission directed that:

The staff should engage industry to seek volunteer facilities to perform "case studies" to review the accuracy of cost and schedule estimates used in NRC's regulatory analysis (such as the [Title 10 of the *Code of Federal Regulations*] Part 73 security upgrades required after the attacks of September 11, 2001 and 10 CFR 50.48c, [National Fire Protection Association] NFPA 805 program).

### *Progress since the Last Update to the Commission*

Since its May 21, 2013, letter (ADAMS Accession No. ML13143A299), the Nuclear Energy Institute (NEI) has made significant progress in the case studies that investigate the cost and schedule estimates in the NRC's regulatory analyses. NEI focused on three regulations that impact the power reactor community<sup>1</sup>:

- 10 CFR Part 26, Subpart I, "Managing Fatigue" (2008 rulemaking)
  - Regulatory analysis available in ADAMS (Accession No. ML080580135)
- 10 CFR 50.48(c), "National Fire Protection Association Standard NFPA 805"
  - Regulatory analysis available in ADAMS (Accession No. ML040540542)
- 10 CFR Part 73, "Physical Protection of Plants and Materials"
  - Regulatory analysis available in ADAMS (Accession No. ML083390372)

During a September 19, 2013, public meeting on CER, NEI presented an update on the case studies. NEI's slides are available in ADAMS (Accession No. ML13260A476). The summary of that public meeting is available in ADAMS (Accession No. ML13267A228).

The staff conducted a public meeting that focused solely on the case studies on January 28, 2014. The summary of that public meeting is available in ADAMS under Accession No. ML14031A204. The NEI's presentation (ADAMS Accession No. ML14028A452) detailed the

---

<sup>1</sup> The NRC staff notes that, while the regulatory analyses that were analyzed impacted the operating power reactor licensees, any lessons learned and process improvements could be applied, on an agencywide level, to the regulatory analysis process.

following cost differences between the NRC's estimates and actual implementation costs (as generated by the industry):

- 10 CFR Part 26, Subpart I
  - NRC cost estimate was two to five times lower than implementation costs
- 10 CFR 50.48(c)
  - NRC cost estimate was six times lower than implementation costs
- 10 CFR Part 73, Power Reactor Security Requirements
  - Section 73.55 cost analysis estimate was 19 times lower than implementation costs

In addition, NEI provided a handout during the meeting that contained NEI's final case study results and recommendations (ADAMS Accession No. ML14028A455). NEI's recommendations are:

- Clearly define the scope, closure criteria and characteristics so that realistic resources can be estimated for compliance with the new action/position.
- Before the regulation is first published for comment, the scope, regulatory analysis, and guidance of the regulation should receive early public input in order to help accurately estimate the costs and benefits of the regulation. This should be done before the public comment period for the proposed rule so the basis for the proposed rule is as accurate as possible.
- Regulatory analyses should include information on the basic assumptions and sources that drive the high level estimates. Further, the regulatory analyses should provide a range of estimates based on various sensitivities instead of single point estimates.

During the public meeting, the NRC staff noted that these recommendations, in part, are already incorporated in the CER process enhancements and that the subject regulatory analyses were all completed during the pre-CER era. Nevertheless, the NRC continuously seeks to improve its existing processes and will consider how to incorporate these, as appropriate, in the cost-benefit update activities described in SECY-14-0002, "Plan for Updating the U.S. Nuclear Regulatory Commission's Cost-Benefit Guidance" (ADAMS Accession No. ML13274A495).

## **Update on the Cumulative Effects of Regulation Template**

SECY-12-0137, "Implementation of the Cumulative Effects of Regulation Process Changes," dated October 5, 2013, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12223A162), described a template that could be used in the early stages of rulemaking to determine the viability and priority of a new rulemaking activity. The Nuclear Energy Institute (NEI) introduced this concept during a May 31, 2012, public meeting on the cumulative effects of regulation (CER); the summary of that meeting is available in ADAMS (Accession No. ML12165A720). During that meeting, NEI volunteered to develop the template, and stated that it was also forming a CER working group.

Through subsequent public meetings (in May 2013, September 2013, and November 2013), the staff determined that there is no longer interest in the CER "template" that NEI described in the May 2012 public meeting. As such, the staff will sunset the concept of the term "template," because it is introducing confusion during interaction with public stakeholders.

However, since May 2012, the Commission has issued SRM-COM-GEA-12-0001/COMWDM-12-0002, "Proposed Initiative to Improve Nuclear Safety and Regulatory Efficiency" (ADAMS Accession No. ML13037A541). On October 1, 2013, NEI submitted a letter and draft guidance (ADAMS Accession No. ML13276A147) that proposed a process that could be used to prioritize regulatory actions. Figure 1 in that letter was a flowchart that depicted several steps beginning with issue identification and ending with generic characterization and plant-specific prioritization, while also indicating the phases of the rulemaking process. NEI has since updated the flowchart based on public interactions; the most recent version is available in ADAMS (Accession No. ML14014A338). The staff believes that some aspects of this flowchart could be implemented in the NRC's existing CER process and could also meet the goals of the template (as it was originally described). For example, the flowchart contains steps that could better identify the issue definition and closure criteria. The staff will consider those aspects in more detail before developing the March 2015 Commission paper on CER.

## **Update on the Integrated Schedule of Regulatory Activities for Fuel Cycle Facilities**

The staff has taken a number of initiatives to implement Commission direction on the cumulative effects of regulation (CER), and has created a Fuel Cycle Integrated Schedule Gantt Chart ("Integrated Schedule") to list the major regulatory activities under development (please see <http://www.nrc.gov/materials/fuel-cycle-fac/cer-integrated-schedule.xls>). This Integrated Schedule is used to facilitate discussions and seek feedback from internal and external stakeholders on the CER.

The Integrated Schedule contains a condensed overview of the significant U.S. Nuclear Regulatory Commission (NRC) fuel cycle regulatory activities. It provides a one page graphical representation of the major rulemakings and guidance development milestones over 4 years, scheduled public interactions, and links to related documents. This tool is used by the NRC, industry, and stakeholders to identify when major milestones, multiple comment periods or the number of public meetings become too burdensome or need to be rescheduled to improve efficiency.

Staff plans to conduct quarterly meetings with industry and stakeholders to discuss the status of items listed on the Integrated Schedule. Feedback from these meetings is used to update the Integrated Schedule, adjust milestones, and inform industry and other stakeholders of progress on the various regulatory initiatives. The discussions also improve mutual understanding of the NRC's drivers and metrics, and of the industry's priorities for the items listed. Feedback has resulted in changing the items listed on the Integrated Schedule, adjusting the comment periods for several activities to eliminate conflicts, and rescheduling some public meetings.

The CER quarterly meetings have resulted in improvements in communication with the internal and external fuel cycle stakeholders. Staff has added CER to the fuel cycle public website, including the Integrated Schedule. In addition, a supplemental document will be added to the public Web site to provide the purpose of each regulatory activity, the status of each project, and links to related documents.

Moving forward, staff is actively developing guidance to describe the type of information to be shared with stakeholders when developing new regulatory activities, including issue identification, examples, intended outcome, etc. The guidance will incorporate stakeholder comments and describe the criteria used to add or remove items from the Integrated Schedule.

The following table provides an overview of the staff's fuel cycle CER activities.

Date	Activity
June 10, 2013 – Public CER Meeting	Fuel Cycle CER Meeting with industry and NEI (ML13170A227)
October 1, 2013 – Public CER Meeting	Fuel Cycle CER Meeting with industry and NEI (ML13277A354)
January 14, 2014 – Public CER Meeting	Fuel Cycle CER meeting with industry and NEI (ML14023A113)
February, 2014 – Update public website with link to the Integrated Schedule	Create – <a href="http://www.nrc.gov/materials/fuel-cycle-fac/regs-guides-comm.html#cumeffects">http://www.nrc.gov/materials/fuel-cycle-fac/regs-guides-comm.html#cumeffects</a>
March 5, 2014 – Public CER Meeting	Fuel Cycle CER Meeting with industry and NEI
April 2014 – Update Public Website	Add Supplement to the integrated schedule
June 2014 – Public CER Meeting	Fuel Cycle CER Meeting with industry and NEI