

REVISED FUEL CYCLE OVERSIGHT PROCESS

PROJECT PLAN

(Revision 0)

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Enhancements to the Revised Fuel Cycle Oversight Process (RFCOP) Resource-Loaded Project Plan (Revision 0)

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Introduction

On October 7, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff issued SECY-11-0140, "Enhancements to the Fuel Cycle Oversight Process," (Agencywide Documents Access and Management System [ADAMS] Accession No. ML111180705). In SECY-11-0140, the NRC staff recommended a plan for developing a revised fuel cycle oversight process (RFCOP) with cornerstones, a fuel cycle significance determination process (SDP), and an action matrix based on the fuel cycle SDP results. The staff will use cornerstones to risk-inform the core inspection program, to aggregate the inspection findings in the performance assessment process, and, ultimately, to feedback to the core inspection program for continuous improvement. The proposed RFCOP will provide the tools for inspection and assessment of licensee performance in a more risk-informed, objective, predictable, and transparent way. Additionally, the recommended assessment process will provide a systematic method to adjust the inspection program based on licensee performance.

In the Staff Requirements Memorandum (SRM) for SECY-11-0140, dated January 5, 2012 (ADAMS Accession No. ML120050322), the Commission approved the staff's recommendation and directed the NRC staff to develop a publicly available resource-loaded project plan that clearly establishes timelines and major milestones. As directed by the Commission, this project plan will be used to facilitate full stakeholder engagement in the development and implementation of the enhanced RFCOP. The NRC staff notes that this project plan is intended to be a "living" document and will be modified based on interactions with internal and external stakeholders.

This project plan contains three major phases and nine activities.

- Phase I, which includes Activity I, "Corrective Action Program, Issue Characterization, and Inspection Program Improvements," and Activity IX, "Project Management," is the initial 2-year effort that will lay the foundation for the other phases of this project plan. The purpose of the initial 2-year effort is to further consider how to credit an effective corrective action program and seek incremental improvements in the effectiveness and efficiency of the inspection program for fuel cycle facilities.
- Phase II develops the elements of the RFCOP such as cornerstones, fuel cycle SDP, performance assessment process, and supplemental inspection program. These elements provide the necessary framework to ensure an open, transparent, and predictable program.
- Phase III conducts a program pilot, incorporates the lessons learned, and implements the RFCOP.

To foster understanding of this project plan, the NRC staff developed two Gantt charts that illustrate the tasks and timeline based on calendar years. The first chart shows the overall timeline for the project. The second chart shows the timeline and sequencing of the tasks for the initial 2-year effort in more detail. These Gantt charts can be found using the ADAMS accession Nos. ML12167A231 and ML12167A232.

The NRC staff will develop the details for the timeline and sequencing of the tasks beyond the initial 2-year effort after more information is obtained and further stakeholder interactions are completed. As directed in the SRM for SECY-11-0140, the NRC staff will update the Commission, at least annually, on the progress of the development of the enhanced RFCOP.

PHASE I – CORRECTIVE ACTION PROGRAM, ISSUE CHARACTERIZATION, AND INSPECTION PROGRAM IMPROVEMENTS

I. Corrective Action Program, Issue Characterization, and Inspection Program Improvements

The objective of this section of the project plan is to delineate the actions needed to provide credit to licensees for maintaining effective corrective action programs (CAPs) in accordance with NRC requirements. An effective CAP is a foundational element of the RFCOP. It is the NRC's intent to treat NRC-identified findings of very low safety or security significance as non-cited violations (NCVs) if the NRC-identified finding is entered into the CAP and other criteria are met. Licensees who maintain effective CAPs would not be required to submit descriptions of the proposed corrective actions to the NRC for findings of very low safety or security significance. The NRC staff plans to consider additional actions, including appropriate consideration in the core inspection program for an effective CAP (see Task I.D. below).

This section of the project plan also describes the actions needed to clearly define appropriate terminology necessary to perform issue characterization in the RFCOP. Extensive stakeholder engagement is likely needed to reach resolution on the definition and the application of the terminology associated with issue characterization of inspection findings in order to appropriately disposition noncompliance's with requirements, regulations, and/or standards. The staff will consider the term "performance deficiency" as used in the Reactor Oversight Process (ROP), however, care will be taken to ensure that if similar terminology is used in the RFCOP, confusion does not arise from the use of varied definitions of the same term in separate processes. If the staff determines that the process for issue screening will utilize criteria different from that of the ROP, new terminology will be developed solely for use in the RFCOP which clearly delineates the applicable characterization criteria.

Activity Milestone: 3rd Quarter Calendar Year (CY) 2014

- A. Task: Issue a revised Enforcement Policy that provides licensees credit for maintaining effective CAPs
Deliverable: Revised Enforcement Policy
Milestone: September 2012
Resources: 0.1 Full-Time Equivalents (FTE)
 - 1. Subtask: Issue SECY paper with draft revision to the Enforcement Policy (i.e., SECY-12-0047, "Revisions to the Nuclear Regulatory Commission Enforcement Policy")
End date: March 28, 2012 (Complete)
 - 2. Subtask: Issue revised enforcement policy based on Commission direction (SRM for SECY-12-0047)
End date: December 2012

- B. Task: Enhance the current core inspection program including CAPs
Deliverable: Implementation of revised Inspection Procedures (IPs)
Milestone: June 2014
Resources: 1.5 FTE

1. Subtask: Identify IPs for revision and prepare draft revisions of the IPs
End date: March 2013
Precursor: Issuance of the RFCOP project plan
 2. Subtask: Gain internal alignment on the draft revisions of the IPs
End date: May 2013
Precursor: Subtask I.B.1
 3. Subtask: Issue draft IPs and 30-day review/comment period
End date: July 2013
Precursor: Subtask I.B.2
 4. Subtask: Discuss draft IPs with external stakeholders¹
End date: September 2013
Precursor: Subtask I.B.3
 5. Subtask: Revise IPs based on comments from external stakeholders
End date: October 2013
Precursor: Subtask I.B.4
 6. Subtask: Issue revised IPs
End date: November 2013
Precursor: Subtask I.B.5
 7. Subtask: Conduct training for NRC inspectors on revised IPs
End date: January 2014
Precursor: Subtask I.B.6
 8. Subtask: Implement revised IPs
End date: June 2014
Precursor: Subtask I.B.7
- C. Task: Develop and issue the guidance document on effective CAPs
Deliverable: Guidance document for effective CAPs
Milestone: June 2013
Resources: 0.8 FTE
1. Subtask: Prepare draft guidance document for effective CAPs
End date: August 2012
Precursor: Issuance of the RFCOP project plan
 2. Subtask: Gain internal alignment on draft guidance document for developing effective CAPs
Milestone: September 2012
Precursor: Subtask I.C.1

¹ The term external stakeholders includes members of the public, industry representatives, licensee's and Certificate holders, the Nuclear Energy Institute (NEI), other government organizations, and any other external parties interested in NRC activities.

- i. Initiate discussions with project managers and project inspectors on the criteria for effective CAPs
End date: September 2012
 - ii. Align with management on the criteria for effective CAPs.
End date: September 2012
- 3. Subtask: Discuss draft guidance for effective CAP with external stakeholders
Milestone: November 2012
Precursor: Subtask I.C.2
 - i. Schedule and issue public meeting notice with draft guidance document on effective CAP
End date: October 2012
 - ii. Conduct public meeting
End date: November 2012
- 4. Subtask: Revise draft CAP guidance document
Milestone: January 2013
Precursor: Subtask I.C.3
 - i. Address comments from public meetings
End date: December 2012
 - ii. Gain internal alignment (Division Level) on effective CAP guidance document revisions
End date: January 2013
- 5. Subtask: Issue Federal Register Notice (FRN) on effective CAP guidance document
Milestone: March 2013
Precursor: Subtask I.C.4
 - i. Prepare draft FRN
End date: January 2013
 - ii. Administrative process to publish the FRN
End date: March 2013
- 6. Subtask: 30-day FRN public comment period
End date: April 2013
Precursor: Subtask I.C.5
- 7. Subtask: Address public comments on FRN
End date: June 2013
Precursor: Subtask I.C.6
- 8. Subtask: Issue final guidance document for effective CAPs
Milestone: July 2013
Precursor: Subtask I.C.7

- i. Gain internal alignment on CAP guidance revisions due to comments on FRN
Milestone: June 2013
 - ii. Issue the effective CAP guidance document (via generic communication)
Milestone: July 2013
 - 1. Issue effective CAP guidance document
End date: July 2013
 - 2. Issue EDO Daily on effective CAP guidance document
End date: July 2013
- D. Task: Develop and issue a specific IP for the routine and thorough review of the licensee's CAP and conduct inspections
Deliverable: CAP IP (similar to IP 71152, "Identification and Resolution of Problems," and possibly IP 88152, "Fuel Cycle Facility Identification and Resolution of Problems")
Milestone: March 2014
Resources: 1.3 FTE
 - 1. Subtask: Prepare draft CAP IP
Deliverable: Draft CAP IP
End date: February 2013
Precursor: Subtask I.C.5
 - 2. Subtask: Gain internal NRC alignment on the draft CAP IP
Milestone: April 2013
Precursor: Subtask I.D.1
 - 3. Subtask: Discuss draft CAP IP with external stakeholders
Milestone: June 2013
Precursor: Subtask I.D.2
 - i. Schedule and issue meeting notice with draft CAP IP
End date: April 2013
 - ii. Conduct public meeting on CAP IP
End date: June 2013
 - 4. Subtask: Revise CAP IP based on interactions with internal and external stakeholders
End date: July 2013
Precursor: Subtask I.D.3
 - 5. Subtask: Issue CAP IP
End date: August 2013
Precursor: Subtask I.D.4
 - 6. Subtask: Conduct internal training on CAP IP
End date: September 2013
Precursor: Subtask I.D.5

7. Subtask: Conduct CAP inspections
End date: March 2014
Precursor: Subtask I.D.6
- E. Task: CAP licensing actions
Deliverable: Amended licenses
Milestone: September 2014
Resources: 1.0 FTE
1. Subtask: Licensees submit license amendment requests to incorporate effective CAPs as a license condition
End date: June 2014
 2. Subtask: Review licensees' license amendment requests (LARs) for effective CAPs as a license condition
End date: September 2014
- F. Task: Determine the applicable issue characterization terminology for use in RFCOP and develop appropriately defined terminology for use in the SDP
Deliverable: Definition of issue characterization that overcomes the issue of "self-imposed" standards
Milestone: March 2013
Resources: 0.3 FTE
1. Subtask: Define terminology for use in issue characterization
End date: September 2012
Precursor: Issuance of the RFCOP project plan
 2. Subtask: Gain internal alignment on the terminology related to issue characterization
End date: October 2012
Precursor: Subtask I.F.1
 3. Subtask: Discuss the issue characterization terminology with external stakeholders
End date: December 2012
Precursor: Subtask I.F.2
 4. Subtask: Finalize the issue characterization terminology
End date: February 2013
Precursor: Subtask I.F.3
 5. Subtask: Engage the ACRS on the issue characterization terminology and consider Commission interaction as appropriate.
End date: March 2013
Precursor: Subtask I.F.4

G. Task: Develop the “greater than minor” threshold and issue through IMC
Deliverable: Appendices to IMC 0616, “Fuel Cycle Safety and Safeguards Inspection Reports”
Milestone: June 2014
Resources: 0.9 FTE

1. Subtask: Develop the screening questions for characterization of minor issues
End date: May 2013
Precursor: Task I.F
2. Subtask: Develop examples of minor and greater-than-minor issues
End date: July 2013
Precursor: Subtask I.G.1
3. Subtask: Gain internal alignment on the screening questions and examples
End date: August 2013
Precursors: Subtasks I.G.1 and I.G.2
4. Subtask: Issue draft screening questions and examples for external stakeholder comment
End date: October 2013
Precursor: Subtask I.G.3
5. Subtask: Discuss the screening questions and examples with external stakeholders
End date: December 2013
Precursor: Subtask I.G.4
6. Subtask: Revise the screening questions and examples based on comments
End date: January 2014
Precursor: Subtask I.G.5
7. Subtask: Develop and issue NRC guidance on issue screening (Inspection Manual Chapter [IMC] 0616 Appendix)
End date: June 2014
Precursor: Subtask I.G.6

PHASE II – RFCOP FRAMEWORK DEVELOPMENT

II. Cornerstones

The objective of this section of the project plan is to delineate the actions needed to establish a set of cornerstones to use in the RFCOP. The NRC staff will use cornerstones to risk-inform the core inspection program, to aggregate the inspection findings in the performance assessment process, and ultimately to provide feedback to the core inspection program for continuous improvement.

This section intentionally omits certain milestones, end dates, and precursors in order to recognize the uncertainty in projecting future activities over extended periods.

Activity Milestone: 2nd Quarter CY 2015

- A. Task: Identify cornerstones and develop a basis for the cornerstones
Deliverable: Documentation with appropriate basis for the cornerstones in an IMC
Milestone:
Resources: 0.6 FTE
1. Subtask: Prepare draft revised cornerstone approach and basis.
End date:
Precursor: Subtask I.D.5
 2. Subtask: Gain internal alignment on the revised cornerstone approach
End date:
Precursor: Subtask II.A.1
 - i. Conduct internal meeting with internal stakeholders on cornerstones
End date:
 - ii. Revised proposed cornerstones based on internal feedback
End date:
 - iii. Gain management alignment on cornerstone proposal
End date:
 3. Subtask: Engage external stakeholders on the revised cornerstone approach
End date:
Precursor: Subtask II.A.2
 4. Subtask: Engage Advisory Committee on Reactor Safeguards (ACRS) about the revised cornerstone approach
End date:
Precursor: Subtask II.A.2
- B. Task: Prepare notation vote paper that provides options for cornerstones (Task 1 in SRM for SECY-11-0140)
Deliverable: Notation vote Commission paper
Milestone: 1st Quarter CY 2015
Resources: 0.3 FTE

- C. Task: Revise the IPs to incorporate the cornerstone development using inspection activities
Deliverables: Revised IPs
Milestone:
Resources: 0.4 FTE

III. Qualitative Fuel Cycle Significance Determination Process

The objective of this section of the project plan is to delineate the actions needed to develop and test a qualitative fuel cycle SDP in the areas related to integrated safety analyses (ISAs) and areas not related to ISAs.

The ISA-related areas include the potential accident sequences caused by process deviations or other events internal to the facility and credible external events, including natural phenomena, that could affect (1) the radiological hazards (including accidental nuclear criticality) of possessing or processing licensed material, (2) the chemical hazards of licensed material and hazardous chemicals produced from licensed material, and (3) the facility hazards that could affect the safety of licensed material and thus present an increased radiological risk. Tasks A through F address the development and interactions related to the ISA-related areas of the qualitative fuel cycle SDP.

The non-ISA-related areas are emergency preparedness, public and occupational radiation safety under the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 20, "Standards for Protection against Radiation," security, and Material Control and Accounting (MC&A). Tasks G and H address the development and interactions related to the non-ISA-related areas of the qualitative fuel cycle SDP.

This section intentionally omits certain milestones, end dates, and precursors in order to recognize the uncertainty in projecting future activities over extended periods.

Activity Milestone: 3rd Quarter CY 2015

- A. Task: Develop test cases from previous actual violations and events, and hypothetical inspection findings
Deliverable: Report with the test cases
Milestone:
Resources: 0.5 FTE + Contract Dollars

- B. Task: Develop the qualitative fuel cycle SDP conceptual framework and issue the IMC
Deliverable: Proposed fuel cycle SDP IMC that documents the methodology used (e.g., flowcharts, matrices). The methodology includes the thresholds of significance, and the criteria for giving credit in the fuel cycle SDP
Milestone:
Resources: 1.1 FTE
 - 1. Subtask: Develop the very low/low-to-moderate, low-to-moderate/substantial, and substantial/high thresholds (i.e., thresholds of significance) for inspection findings and their respective bases
End date:
Precursor:

 - 2. Subtask: Develop the criteria for allocating significance credit in the fuel cycle SDP and the respective bases
End date:
Precursor:

3. Subtask: Gain internal NRC alignment on the thresholds of significance and criteria for allocating significance credit in the fuel cycle SDP
End date:
Precursor: Subtasks III.B.1 and III.B.2
 4. Subtask: Engage external stakeholders on the thresholds of significance and criteria for allocating significance credit in the fuel cycle SDP
End date:
Precursor: Subtask III.B.3
- C. Task: Test the qualitative fuel cycle SDP with the developed test cases (from Task III.A) and the most recent 3 years of inspection findings, enforcement actions, and events at fuel cycle facilities. Also, compare the results from the qualitative fuel cycle SDP with the results using the traditional process
Deliverable: Report with the results
Milestone:
Resources: 1 FTE + Contract Dollars
- D. Task: Benchmark the results (of Task III.C) with each facility's ISA and characterize the results in terms of risk
Deliverable: Report with the benchmark and characterization of the results in terms of risk
Milestone:
Resources: 0.5 FTE + Contract Dollars
- E. Task: Engage stakeholders about the results (of Tasks III.C and III.D)
Deliverable: Public meeting summary
Milestone:
Resources: 0.3 FTE
1. Subtask: Conduct a workshop with external stakeholders
End date:
Precursor:
 2. Subtask: Engage the ACRS on the results and definition of issue characterization
End date:
Precursor:
- F. Task: Develop the fuel cycle SDP in the areas of emergency preparedness, public radiation safety, and occupational radiation safety
Deliverable:
Milestone:
Resources: 0.5 FTE
1. Subtask: Identify insights from the SDP in the ROP in the areas of emergency preparedness, public radiation safety, and occupational radiation safety and adjust as appropriate
End date:
Precursor:

2. Subtask: Gain internal NRC alignment on the adjustments made to the ROP SDP in the areas of emergency preparedness, public radiation safety, and occupational radiation safety in order to make it applicable to fuel cycle facilities
End date:
Precursor:
 3. Subtask: Discuss with external stakeholders the fuel cycle SDP in the areas of emergency preparedness, public radiation safety, and occupational radiation safety
End date:
Precursor:
 4. Subtask: Discuss with ACRS the fuel cycle SDP in the areas of emergency preparedness, public radiation safety, and occupational radiation safety
End date:
Precursor:
- G. Task: Develop the fuel cycle SDP for Category I and Category III facilities in the areas of security and MC&A.
Deliverable:
Milestone:
Resources: 1 FTE
1. Subtask: Prepare proposed fuel cycle SDP for Category I and Category III facilities in the areas of security and MC&A
Deliverable: Draft IMC
End date:
Precursor:
 2. Subtask: Gain internal alignment on fuel cycle SDP for Category I and Category III facilities in the areas of security and MC&A
End date:
Precursor:
 3. Subtask: Discuss with external stakeholders the fuel cycle SDP for Category I and Category III facilities in the areas of security and MC&A
End date:
Precursor:
 4. Subtask: Discuss with ACRS the fuel cycle SDP for Category I and Category III facilities in the areas of security and MC&A
End date:
Precursor:

IV. Performance Assessment Process

The objective of this section of the project plan is to delineate the actions needed to develop an integrated performance assessment process. The performance assessment process of the enhanced RFCOP includes an action matrix and consideration of the cross-cutting areas of human performance, problem identification and resolution, and safety conscious work environment. The action matrix in the enhanced RFCOP will contain pre-determined NRC and licensee actions commensurate with a licensee's performance.

This section intentionally omits certain milestones, end dates, and precursors in order to recognize the uncertainty in projecting future activities over extended periods.

Activity Milestone: 2nd Quarter CY 2016

- A. Task: Develop the action matrix and issue IMC 2604P
Deliverable: Documentation of the action matrix in IMC 2604P ("P" stands for pilot), "Fuel Cycle Facility Assessment Program"
Milestone:
Resources: 0.9 FTE
1. Subtask: Prepare draft basis for the thresholds of significance (i.e., columns) to be used in the action matrix, including the NRC and licensee pre-determined actions
End date:
Precursor:
 2. Subtask: Gain internal alignment on the basis of the action matrix
End date:
Precursor:
 3. Subtask: Engage stakeholders on the action matrix thresholds
Deliverable:
Milestone:
 4. Subtask: Develop Action Matrix revised as appropriate based on consideration of stakeholder comments
Deliverable:
Milestone:
- B. Task: Incorporate the cross-cutting issues informed by the safety culture policy statement used in the ROP into the RFCOP, as appropriate
Deliverable:
Milestone:
Resources: 0.6 FTE
1. Subtask: Gain internal alignment on how the cross-cutting issues are proposed to be incorporated into the RFCOP
End date:
Precursor:

2. Subtask: Engage external stakeholders on how the cross-cutting issues are proposed to be incorporated into the RFCOP
End date:
Precursor:
 3. Subtask: Consider stakeholder comments and revise cross-cutting issues approach
Deliverable:
Milestone:
- C. Task: Develop an integrated assessment process and issue revisions to IMC 2604
Deliverable: IMC 2604P
Milestone:
Resources: 0.4 FTE
1. Subtask: Gain internal alignment on how the integrated assessment process would work
End date:
Precursor:
 2. Subtask: Engage external stakeholders on how the integrated assessment process would work
End date:
Precursor:
 3. Subtask: Consider stakeholder comments and develop a draft of IMC 2604P
Deliverable:
Milestone:
- D. Task: Incorporate the action matrix into the inspection program
Deliverable:
Milestone:
Resources: 0.3 FTE

V. Supplemental Inspection Program

The objective of this section of the project plan is to delineate the actions needed to develop a supplemental inspection program in the enhanced RFCOP. Supplemental inspections will be initiated based on past inspection findings that were evaluated to have a low-to-moderate significance or greater using the fuel cycle SDP. The need for supplemental inspections will be predetermined in accordance with the fuel cycle action matrix. These inspections will provide more diagnostic evaluations (cause-determining) of identified problems and issues beyond that provided by the core inspections.

This section intentionally omits certain milestones, end dates, and precursors in order to recognize the uncertainty in projecting future activities over extended periods.

Activity Milestone: 2nd Quarter CY 2016

- A. Task: Develop the basis for the supplemental inspection program and issue appendix
Deliverable: An appendix for supplemental inspections in IMC 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program"
Milestone:
Resources: 0.3 FTE
1. Subtask: Gain internal alignment on the basis of the supplemental inspection program
End date:
Precursor:
 2. Subtask: Engage external stakeholders on the basis of the supplemental inspection program
End date:
Precursor:
 3. Subtask: Consider comments and develop appendix on supplemental inspections
End date:
Precursor:
- B. Task: Develop and issue the supplemental inspection procedures
Deliverable: IPs 950X1, 950X2, and 950X3
Milestone:
Resources: 0.8 FTE
1. Subtask: Gain internal NRC alignment on the supplemental IPs
End date:
Precursor:
 2. Subtask: Discuss the supplemental IP with external stakeholders
End date:
Precursor:

3. Subtask: Draft IPs 950X1, 950X2, and 950X3
End date:
Precursor:

PHASE III – PILOT, LEASONS LEARNED AND IMPLEMENTATION

VI. Pilot Program

This section intentionally omits certain milestones, end dates, and precursors in order to recognize the uncertainty in projecting future activities over extended periods.

Activity Milestone: 3rd Quarter CY 2017

- A. Task: Develop and issue a notation vote Commission paper with the results of the development of the fuel cycle SDP (including an example demonstrating how inspection findings could be evaluated and characterized consistent and predictably using the fuel cycle SDP) and staff's recommendation to initiate the pilot program (Tasks 6 and 7 in the SRM for SECY-11-0140)

Deliverable: Notation Vote SECY Paper

Milestone: 2nd Quarter CY 2016

Resources: 1 FTE

1. Subtask: Select the facilities and cornerstones to pilot
End date:
Precursor:
2. Subtask: Provide training for NRC inspectors on the SDP, Action Matrix, Supplemental IPs, and the integration of the RFCOP for piloting
End date:
Precursor:

- B. Task: Conduct the pilot program.

Deliverable:

Milestone:

Resources: 0.2 FTE

1. Subtask: Develop, test, and analyze multiple cornerstones as part of the pilot process across the entire set of relevant fuel cycle facilities
End date:
Precursor:
2. Subtask: Engage external stakeholders on the results of the testing of multiple cornerstones and the pilot program
End date:
Precursor:

- C. Task: Assess the results of the pilot program

Deliverable:

Milestone:

Resources: 0.4 FTE

D. Task: Consider recommendations for revisions to the RFCOP based on the pilot program

Deliverable:

Milestone:

Resources: 0.2 FTE

E. Task: Develop and issue a notation vote Commission paper with the results of the pilot program and the staff's recommendation for full implementation. The Commission paper will include the analysis of the testing of multiple cornerstones and recommendations for further development (Tasks 2 and 5 in SRM for SECY-11-0140)

Deliverable: Notation vote SECY paper

Milestone: 2nd Quarter CY 2017

Resources: 0.3 FTE

VII. Quantitative Fuel Cycle Significance Determination Process

Activity Milestone: 2nd Quarter CY 2017

This section includes the actions needed to develop a quantitative fuel cycle SDP in the ISA-related areas. The quantitative fuel cycle SDP will be used when practical and reasonable.

This section intentionally omits certain milestones, end dates, and precursors in order to recognize the uncertainty in projecting future activities over extended periods.

A. Task: Determine whether to explore quantitative insights

Deliverable:

Milestone:

Resources: 0.2 FTE + Contract Dollars

1. Subtask: Contract management

End date:

Precursor:

2. Subtask: Consider merits, benefits, and costs of using quantitative insights

End date:

Precursor:

3. Subtask: Engage external stakeholders regarding exploration of quantitative insights

End date:

Precursor:

B. Task: Develop, validate and issue human reliability risk assessment tools and data applicable to fuel cycle facilities starting with WSRC-TR-93-581, "Savannah River Site Human Error Data Base Development for Nonreactor Nuclear Facilities"

Deliverable: An IMC with a fuel cycle human reliability tool

Milestone:

Resources: 0.4 FTE + Contract Dollars

1. Subtask: Describe the use of human reliability assessment for fuel cycle facilities and develop a draft IMC

End date:

Precursor:

2. Subtask: Engage external stakeholders on the tools and data applicable to fuel cycle facilities regarding human error data

End date:

Precursor:

3. Subtask: Issue IMC describing the use of human reliability assessment

End date:

Precursor:

C. Task: Develop, validate and issue hardware reliability risk assessment tool and data applicable to fuel cycle facilities

Deliverable: An IMC with a fuel cycle hardware reliability tool

Milestone:

Resources: 0.4 FTE + Contract Dollars

1. Subtask: Conduct review and assessment of the applicability of WSRC-TR-93-262, "Savannah River Site Generic Data Base Development"

End date:

Precursor:

2. Subtask: Engage external stakeholders on the tools and data applicable to fuel cycle facilities regarding hardware reliability data

End date:

Precursor:

D. Task: Develop the risk-significance model for fuel cycle facilities and issue IMC

Deliverable: An IMC with a risk-significance assessment handbook for fuel cycle facilities

Milestone:

Resources: 0.6 FTE + Contract Dollars

1. Subtask: Develop the quantitative thresholds for very low/low-to-moderate, low-to-moderate/substantial, and substantial/high (i.e., thresholds of significance) for inspection findings and their respective bases

End date:

Precursor:

2. Subtask: Develop the criteria for giving credit in the fuel cycle SDP, how much credit and the respective bases

End date:

Precursor:

3. Subtask: Gain internal NRC alignment on the quantitative thresholds of significance, and the criteria for giving credit in the fuel cycle SDP and how much credit it receives

End date:

Precursor:

4. Subtask: Engage external stakeholders on the quantitative thresholds of significance, and criteria for giving credit in the fuel cycle SDP and how much credit it receives

End date:

Precursor:

E. Task: Test the quantitative fuel cycle SDP with the developed test cases (from Task III.A) and the most recent 3 years of inspection findings, enforcement actions, and events at fuel cycle facilities. Also, compare the results from the quantitative fuel cycle SDP with the results using the qualitative fuel cycle SDP

Deliverable: Report with the results

Milestone:

Resources: 0.6 FTE + Contract Dollars

F. Task: Engage stakeholders about the results (of Task VI.E)

Deliverable: Public meeting summary

Milestone:

Resources: 0.4 FTE

1. Subtask: Conduct a workshop with external stakeholders

End date:

Precursor:

2. Subtask: Engage the ACRS on the results

End date:

Precursor:

3. Subtask: Formulate recommendations on whether and how to use a quantitative fuel cycle SDP

End date:

Precursor:

VIII. Implementation of the Fuel Cycle Oversight Process

This section intentionally omits certain milestones, end dates, and precursors in order to recognize the uncertainty in projecting future activities over extended periods.

Activity Milestone: 4th Quarter CY 2017

- A. Task: Develop a transition process and date to implement the RFCOP
Deliverable:
Milestone:
Resources: 0.3 FTE
 - 1. Subtask: Gain internal alignment on the transition process and date to implement the RFCOP
End date:
Precursor:
 - 2. Subtask: Communicate to licensees, through letters, about the transition process and date
End date:
Precursor:
- B. Task: Conduct inspector and reviewer training on the full implementation of the RFCOP
Deliverable:
Milestone:
Resources: 0.3 FTE
- C. Task: Suspend the Licensee Performance Review program and other superseded components
Deliverable:
Milestone: End of calendar year 2019
Resources: 0.1 FTE
- D. Task: Initiate the enhanced RFCOP
Deliverable: Ongoing program
Milestone: Beginning of calendar year 2020
Resources: 0.1 FTE
 - 1. Subtask: Communicate to all external stakeholders via press release and/or public meeting regarding the transition process and date
End date:
Precursor:

IX. Project Management

This section of the project plan includes the daily activities and the coordination of the annual updates that the Commission requested in the SRM for SECY-11-0140. The annual updates to the Commission will be in the form of a memorandum from the Director of the Office of Nuclear Material Safety and Safeguards and will include an assessment of the work accomplished in the previous year and, if appropriate, an updated version of the RFCOP project plan.

Activity Milestone: N/A

- A. Task: Daily activities
Deliverable:
Milestone: N/A
Resources: 1.1 FTE

- B. Task: 2013 annual Commission update
Deliverable: Commission Memorandum
Milestone: July 2013
Resources: 0.2 FTE

- C. Task: 2014 annual Commission update
Deliverable: Commission Memorandum
Milestone: July 2014
Resources: 0.2 FTE

- D. Task: 2015 annual Commission update
Deliverable: Commission Memorandum
Milestone: July 2015
Resources: 0.2 FTE

- E. Task: 2016 annual Commission update
Deliverable: Commission Memorandum
Milestone: July 2016
Resources: 0.2 FTE

- F. Task: 2017 annual Commission update
Deliverable: Commission Memorandum
Milestone: July 2017
Resources: 0.2 FTE

Table 1: Total Resource Estimates by Activity Needed to Develop RFCOP (2012-2018)

Activity	FTE	Contract Dollars
I. Corrective Action Program and Issue Characterization	5.9	
II. Cornerstones	1.3	
III. Qualitative Significance Determination Process	4.9	\$500,000
IV. Performance Assessment Process	2.2	
V. Supplemental Inspection Program	1.1	
VI. Pilot Program	2.1	
VII. Quantitative Significance Determination Process	2.6	\$2,000,000
VIII. Implementation	0.8	
IX. Project Management	2.1	
Total	23	\$2,500,000