SECRETARY

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

January 5, 2012

COMMISSION VOTING RECORD

DECISION ITEM: SECY-11-0140

TITLE: ENHANCEMENTS TO THE FUEL CYCLE OVERSIGHT PROCESS

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of January 5, 2012.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:
1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Jaczko
Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
OGC
EDO
PDR

VOTING SUMMARY - SECY-11-0140

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. JACZKO	X				X	11/7/11
COMR. SVINICKI	X				X	12/8/11
COMR. APOSTOLAKIS	X				X	11/30/11
COMR. MAGWOOD	X				X	11/23/11
COMR. OSTENDORFF	X				X	11/9/11

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Gregory B. Jaczko

SUBJECT: SECY-11-0140 – ENHANCEMENTS TO THE FUEL CYCLE OVERSIGHT PROCESS

Approved __X__ Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached _X__ None ___

_____
SIGNATURE

11/7/11
_____
DATE

Entered on "STARS" Yes _X__ No ___

Chairman Jaczko's Comments on SECY-11-0140
"Enhancements to the Fuel Cycle Oversight Process"

I approve the staff's recommendation to implement Option 1 for enhancing the Fuel Cycle Oversight Process (FCOP), which includes the use of cornerstones, a significance determination process, and an action matrix. These risk-informed improvements to the program would provide significant enhancements to the objectivity, predictability, and transparency of our oversight of these facilities. Importantly, members of the public would be better able to understand the performance of fuel cycle facilities and the actions that the NRC takes in response to performance issues. The staff should develop a publicly-available project plan that will clearly establish the timelines and major milestones for this project.

I have carefully considered the discussion presented in the paper and the pros and cons of using hazards analysis-based cornerstones or operations-based cornerstones. The disadvantages of using the operations-based cornerstones are hard to ignore; primarily, that a single failure could impact several cornerstones, and that this approach would lead to inconsistencies for facilities licensed under different parts of Title 10 (e.g., 10 CFR 40, 70, and 76). I also believe that the hazards-based approach, which has been used by the reactor oversight process for many years, is an approach that has been shown to be workable and reliable for both the agency and reactor licensees. However, I am also sensitive to the industry's belief that using an operations-based approach would be more effective in communicating within their own organizations and facilities, and therefore would help to support improved safety. The staff should continue their interactions to explore the optimal basis for the cornerstones, ultimately recommending the path that is most likely to help ensure safe operations.

I approve staff's recommendation to develop a qualitative fuel cycle significance determination process. As staff states in the paper, the quantitative risk technology for these facilities is not sufficiently developed to support a case-by-case approach, and large resource expenditures would be required to develop a PRA-based approach. As staff develops this approach, they should inform the Commission if they determine that this approach will not be realistic or precise enough to be useful.

Staff has done an excellent job of laying the groundwork for this enhancement to the agency's inspection and oversight process for these facilities. This is a long-term effort that is not expected to come to fruition until 2015. The staff should update the Commission at least once a year on its progress.

Gregory B. Jaczko 1/7/11
Date

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER SVINICKI

SUBJECT: SECY-11-0140 – ENHANCEMENTS TO THE FUEL CYCLE OVERSIGHT PROCESS

Approved XX **Disapproved** _____ **Abstain** _____

Not Participating _____

COMMENTS: **Below** ___ **Attached** XX **None** ___

Original vote was on 12/7/11.

SIGNATURE

12/8/2011

DATE

Entered on "STARS" Yes XX **No** ___

Commissioner Svinicki's Comments on SECY-11-0140
Enhancements to the Fuel Cycle Oversight Process

I join my colleagues in approving additional development of proposed enhancements to the fuel cycle oversight process as described in the staff's Option 1, subject to the following additional comments.

Further development of fuel cycle-specific cornerstones should begin with the development and testing of a single cornerstone analyzed across the entire set of relevant fuel cycle facilities. The staff should provide the Commission with an analysis of the testing of a single cornerstone and recommendations for further development of the other cornerstones, based on this analysis.

I agree with my colleagues that insufficient evaluation has been done to choose between hazard analysis-based or operations-based cornerstones. I do not find having a parallel structure between the Reactor Oversight and Fuel Cycle Oversight processes to be a sufficient basis to discard an operations-based approach. The staff should re-engage stakeholders on this issue, as proposed by Commissioner Magwood.

The staff's utilization of a proposed definition for a fuel cycle facility "performance deficiency", which includes a licensee failing "to meet a self-imposed standard", continues to concern me, as it would appear to create an obvious and immediate disincentive for licensees to commit to best practices going beyond our regulatory requirements. The staff should continue to engage with stakeholders on a definition of "performance deficiency" that overcomes this problem and should report the results to the Commission.

In order to develop the fuel cycle significance determination process (SDP) with the benefit of recent regulatory insights, the staff should analyze the most recent 2 or 3 years of inspection findings, enforcement actions, and events at fuel cycle facilities by running them through the draft qualitative type SDP. The staff should benchmark the results with each facility's Integrated Safety Analysis and characterize the results in terms of risk. The staff should make these results public, conduct a workshop with stakeholders, and engage the Advisory Committee on Reactor Safeguards. The results of these activities should then be provided to the Commission with any recommended modifications to the approach going forward.

I support continued development of a program to credit licensees' Corrective Action Programs (CAP) in the enforcement process. Staff should provide the objectives and criteria they will use to determine whether a licensee's CAP is effective concurrent with providing the proposed Enforcement Policy amendments to the Commission. Based on the additional evaluations I have proposed above, the development of a Supplemental Inspection Program is premature at this time until further definitional work is completed on the SDP and action matrix.

I support the development and submittal of a resource loaded project plan for these fuel cycle oversight enhancement activities, with milestones, for Commission review and approval.

Finally, as noted by the staff in SECY-10-0031, "the existing [fuel cycle] oversight process is effective and ensures safety and security." Consequently, the activities undertaken to enhance the NRC's fuel cycle oversight process are truly that – enhancements – and are a lower funding priority than some other recently emergent, unfunded activities, such as some of the Commission-approved post-Fukushima response actions. As the staff prepares proposed funding adjustments, for the Commission's approval, related to funding the near-term Fukushima actions, it should keep this prioritization in mind.

Kristine L. Svinicki 12/8/11

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

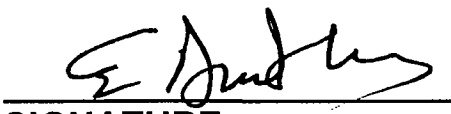
FROM: Commissioner Apostolakis

SUBJECT: SECY-11-0140 – ENHANCEMENTS TO THE FUEL CYCLE OVERSIGHT PROCESS

Approved __X__ Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached _X__ None ___



SIGNATURE

11/30/11

DATE

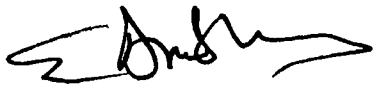
Entered on "STARS" Yes √ No ___

Commissioner Apostolakis' Comments on SECY-11-0140 -
Enhancements to the Fuel Cycle Oversight Process

I approve Option I with the following comments. I agree with Chairman Jaczko's and Commissioner Magwood's recommendation that staff develop and make public a project plan that will establish the schedule and major milestones for this project.

The ACRS found that integrated safety analyses (ISAs) are adequate for simple facilities and that the use of a probabilistic risk assessment (PRA)-like approach is more appropriate for more complex facilities and those with the potential for accidents with significant source terms. Staff agrees that ISAs are adequate for simple facilities and notes that the use of a PRA-like approach could be useful for prioritization of complex facilities or to supplement ISAs to determine the risk significance of an event. As the ACRS noted in its report dated February 17, 2011, all items relied on for safety (IROFS) in an ISA, are viewed as being of equal importance. For complex facilities, the number of IROFS may be large and a ranking according to risk significance would be beneficial. I, therefore, propose that the staff develop a classification of fuel cycle facilities according to their complexity and radiological hazard. The staff should, then, identify the appropriate methodology (i.e., ISA or a more PRA-like approach) to be used for each class. The significance determination process to be used with each class would also be appropriate to the methodology used.

I agree with Commissioner Ostendorff's recommendation that the staff conduct a pilot program for a representative group of fuel cycle facilities once the revised process is complete. This representative group should include representative facilities from the classes I discussed above.



George Apostolakis
11/30/11

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MAGWOOD

SUBJECT: SECY-11-0140 – ENHANCEMENTS TO THE FUEL CYCLE OVERSIGHT PROCESS

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached X None ___

SIGNATURE

23 November 2011

DATE

Entered on "STARS" Yes X No ___

Commissioner Magwood's Comments on SECY-11-0140
"Enhancements to the Fuel Cycle Oversight Process"

I commend the staff for presenting a very well written and informative paper that outlines a path to enhance the Fuel Cycle Oversight Process (FCOP). While the current oversight process is working well and has proven very effective in assuring the protection of public safety and security, staff's proposed enhancements present the prospect of a clearer, less subjective regulatory process that focuses agency resources on matters of greatest safety significance. Staff's efforts over the last year to refine its proposal and further investigate the applicability of quantitative approaches to identifying and characterizing risks have proven very beneficial. As a result of this work, I believe the agency is now in a far stronger position to move forward with the development and eventual implementation of an enhanced FCOP.

Thus, subject to the comments that follow, I approve the staff's recommendation to implement Option 1 in SECY-11-0140. This option anticipates the development and use of cornerstones, a significance determination process, and an action matrix.

First, while I concur (based largely on staff's very helpful ISA/PRA comparison paper) that integrated safely analyses (ISAs) provide a sound basis for the enhanced process, I believe that opportunities exist in many facilities to apply more quantitative analyses to assess and understand risks to safe operation. I recommend that as part of the Commission's approval of the development of the enhanced FCOP, that staff be directed to apply quantitative analyses to the revised process when practical and reasonable. Staff is best placed to apply this judgment on a case-by-case basis. Additionally, for the longer-term, I support the ACRS recommendation that staff develop and test the use of "focused PRA-like analyses."

Second, after careful review of staff considerations and stakeholder input regarding the question of whether the enhanced FCOP should apply hazard analysis-based cornerstones or operations-based cornerstones, I find that more work needs to be done. I am not convinced that there is substantial intrinsic value in having a FCOP that superficially mirrors the Reactor Oversight Process (ROP). As has been emphasized in the debate regarding the use of PRA versus ISA for fuel cycle facilities, these facilities are not reactors. The risks and hazards are very different. I am also not compelled by the argument made in SECY-11-0140 that "a single failure would impact several cornerstones." This conclusion appears to me to be based on a narrow and limited view of the fuel cycle facility inspection regime and how it should evolve to support an improved process. Further, applying hazard analysis-based cornerstones to these facilities ignores compelling arguments made by licensees regarding how the cornerstones will be used and understood by facility operators.

Therefore, I recommend that staff reengage with stakeholders to develop an approach to the cornerstones that gives more consideration to how they would be understood in the context of fuel cycle facility operation and less to whether they resemble those of the ROP. Possibly, a combination of hazard and operations-based cornerstones could prove to be the optimal approach. When ready, staff should provide a notation voting paper to the Commission to bring this major issue to closure.

Third, I approve staff's recommendation to develop a qualitative fuel cycle significance determination process (SDP). I also approve staff's proposal to work with stakeholders to develop the definition of "performance deficiency" to be used in the SDP. Once the staff has completed these actions, staff should provide the Commission with an information paper

describing the SDP. The paper should provide an illustrative example demonstrating inspection finding would be evaluated using the proposed SDP.

Fourth, I support the ACRS recommendation that a pilot project be developed and implemented to test the approved cornerstones. Once this is done, staff will be in a better position to develop an action matrix. The results of the pilot project and the proposed action matrix should be provided to the Commission in an information paper.

Fifth, staff should proceed with the development and implementation of the incentives for licensees to maintain an effective Corrective Action Program. This is another area which I believe requires significant work and attention as this effort moves forward.

Finally, staff should develop a project plan that clearly establishes timelines and major milestones for the project. The plan should be made available to the public and be used to facilitate stakeholder engagement in the development and implementation of the enhanced FCOP.

11/23/11

William D. Magwood, IV **Date**

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER OSTENDORFF

SUBJECT: SECY-11-0140 – ENHANCEMENTS TO THE FUEL CYCLE OVERSIGHT PROCESS

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached X None ___

SIGNATURE

11/9/11

DATE

Entered on "STARS" Yes X No ___

Commissioner Ostendorff's Comments on SECY-11-0140, "Enhancements to the Fuel Cycle Oversight Process"

I approve of Option 1 to enhance the fuel cycle oversight process (FCOP), including developing hazards-analysis cornerstones and a qualitative significance determination process (SDP). Consistent with my vote on this issue in SECY-10-0031, I continue to believe that, while the existing FCOP is effective and ensures safety and security, the staff's proposed improvements to the FCOP would enhance the predictability and transparency of the process and make it more risk-informed and performance based. I appreciate the staff's efforts to date towards enhancing the FCOP, and I support further efforts to revise the FCOP that build upon the improvements that have already been made. Toward that end, I offer the following additional comments.

As I noted in my vote on SECY-10-0031, the unique nature of the fuel cycle facilities warrants the use of selected pilots to ensure an informed approach. A pilot program was useful in the development and implementation of the Reactor Oversight Process (ROP), and I think one would be useful for the revised FCOP. Therefore, once development of the revised process is complete, the staff should implement a pilot program at a representative group of fuel cycle facilities. The pilot program should be designed to exercise the inspection, assessment, and enforcement components of the revised process in order to identify and resolve implementation issues. Following the completion of a pilot program, the staff should provide the Commission with a notation vote paper that includes the results of the pilot, any necessary changes to the revised FCOP, and the staff's recommendations for full implementation.

Integrated safety analyses (ISAs) serve as the foundation for the existing fuel facility safety approach, and I believe that ISAs provide the best available information for regulatory decision making. As I noted in my vote on SECY-10-0031, the Commission should neither depart from this existing ISA foundation nor lessen the role of ISAs as we seek to improve the existing FCOP. Given that ISAs have been effective in identifying safety significant fuel cycle facility processes, in addition to using cornerstones, the staff should also use information from ISAs to focus inspection resources on the most safety significant areas.

Stakeholder input and involvement will be critical during development of the revised FCOP. Similar to the process followed during development of the ROP, the staff should use public workshops to solicit input and feedback from our stakeholders as it develops a revised FCOP. Lastly, the staff should inform the Commission annually of its efforts to revise the FCOP.