

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SECRETARY

December 21, 2007

COMMISSION VOTING RECORD

DECISION ITEM: SECY-07-0184

TITLE:

INDUSTRY TRENDS PROGRAM FOR OPERATING POWER REACTORS - BASELINE RISK INDIEX FOR INITIATING EVENTS

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The Commission (with Chairman Klein and Commissioner Jaczko agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of December 21, 2007. Commissioner Lyons approved in part and disapproved in part.

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 Klein

Commissioner Jaczko

Commissioner Lyons

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VOTING SUMMARY - SECY-07-0184

RECORDED VOTES

Y.	APRVD I	DISAPRVD ABSTAII	NOT N PARTICIP COMM	MENTS	DATE
CHRM. KLEIN	X			X	12/11/07
COMR. JACZKO	X	•		X	11/30/07
COMR. LYONS	X	X		X	11/20/07

COMMENT RESOLUTION

In their vote sheets, Chairman Klein and Commissioner Jaczko approved the staff's recommendation. Commissioner Lyons approved in part and disapproved in part. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on December 21, 2007.

NOTATION VOTE

RESPONSE SHEET

TO:	Annette Vietti-Cook, Secretary				
FROM:	CHAIRMAN KLEIN				
SUBJECT:	SECY-07-0184 – INDUSTRY TRENDS PROGRAM FOR OPERATING POWER REACTORS BASELINE RISK INDEX FOR INITIATING EVENTS				
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Not Participatin	g				
COMMENTS:	Below Attached XX None				
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	SIGNATURE				
	DATE				
Entered on "STA	ARS" Yes $\sqrt{}$ No				

Chairman Klein's Comments on SECY-07-0184

I approve the staff's recommendation to implement the proposed Baseline Risk Index for Initiating Events (BRIIE) as part of the NRC's Industry Trends Program (ITP). The ITP tracks and reports parameter trends associated with occurrences of initiating events and unavailability of important plant equipment. BRIIE takes the ITP effort a step further and provides a mechanism for determining an aggregate risk perspective of any observed changes in industry performance on a yearly basis. The process of developing the index estimate requires that the parameters used as inputs to the plant's probabilistic risk assessment (PRAs), such as the initiating event frequencies, are updated to reflect recent occurrences of events. Consequently, in the course of estimating this index, the NRC would essentially be updating the PRA for every plant, albeit the NRC would be using its own plant risk models. Therefore, from a strategic standpoint, I believe the implementation of BRIIE represents another positive step toward applying risk-related information in our regulatory activities, as envisioned by the Commission's PRA Policy Statement to help keep our focus on safety. For this first-of-a-kind, pace-setting effort, I commend the staff.

Given the complexity of BRIIE, however, I anticipate challenges associated with explaining this index to the public. Therefore, the staff should develop a clear plain-English description of BRIIE for which the public can easily understand. Furthermore, the staff should withhold the practice of reporting to Congress a BRIIE estimate that exceeds a justifiable threshold until such communication content and strategy for the public has been developed and can also be applied toward the report.

Dale E. Klein

Date

NOTATION VOTE

RESPONSE SHEET

TO:	Annette Vietti-Cook, Secretary				
FROM:	COMMISSIONER JACZKO				
SUBJECT:	SECY-07-0184 – INDUSTR FOR OPERATING POWER BASELINE RISK INDEX FO	REACTORS			
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COMMENTS:	Below Attached X	None			
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	SIGNATUR				
	DATE	11/2012			
Entered on "STA	ARS" Yes <u>X</u> No				

Commissioner Jaczko's Comments on SECY-07-0184 Industry Trends Program for Operating Power Reactors – Baseline Risk Index for Initiating Events

I approve of the staff's plan for the Baseline Risk Index for Initiating Events as described in SECY 07-0184.

While I support the development of new performance indicators and the use of risk insights, I think it's important to remember that the use of probabilistic risk assessments (PRA) does not provide an absolute value of risk, but rather insights into the relative changes in risk to the extent supported by state-of-the-art PRA methods. PRA is a complement to a deterministic approach and supports the NRC's traditional defense-indepth philosophy. There are inherent uncertainties in PRA analyses, and varying sensitivities in the models used, and thus limitations in its use. The use of BRIIE, in keeping with the Commission Policy Statement, like the use of PRA in support of regulatory decisions should be as realistic as practicable, and appropriate supporting data should be publicly available for review.

Gregory B. Jaczko

Date

NOTATION VOTE

RESPONSE SHEET

TO:	Annette Vietti-Cook, Secretary				
FROM:	COMMISSIONER LYONS				
SUBJECT:	SECY-07-0184 – INDUSTRY TRENDS PROGRAM FOR OPERATING POWER REACTORS BASELINE RISK INDEX FOR INITIATING EVENTS				
Approved X	in part Disapp	roved X in part	Abstain		
Not Participatir	ng				
COMMENTS:	Below Attach	ed X None	_		
	SIG DA	eter B. Lyons INATURE 11 20 107 TE			
Entered on "STARS" Yes X No					

Commissioner Lyons' Comments on SECY-07-0184

I approve, in part, and disapprove, in part, the staff's recommendation to incorporate the Baseline Risk Index for Initiating Events (BRIIE) into the NRC's Industry Trends Program (ITP), starting with the annual Commission paper on FY 2007 ITP results. I approve its implementation on a trial basis in accordance with my comments below, but disapprove its use to initiate reports to Congress until stakeholders have had an opportunity to comment on it.

I strongly support improving the ITP to gain greater risk insights from industry performance data. The staff has done an excellent job developing BRIIE in response to Commission direction in 2001 to develop risk-informed thresholds for industry-level indicators. The BRIIE does not replace any existing ITP indicator and will therefore add another means to trend industry performance and to potentially initiate additional NRC actions and a report to Congress if a risk-informed threshold is met.

The BRIIE is unique among ITP indicators in that it aggregates selected initiating events that occur over a given year, weighting each event by generic risk significance. In any such aggregate index, the movement of the index must be analyzed, interpreted, and explained as to what it means and what further action it should prompt (or not) and why. As such indices become more complex, so do our challenges in communicating with stakeholders, and we must therefore continue to seek opportunities to improve our communication of risk and technical matters simply, clearly, and accurately.

Therefore, staff should implement BRIIE for FY2007 on a trial basis and should solicit public comment on the FY2007 BRIIE results, and then brief the ACRS on the results and on how the staff addressed the public comments. Staff should provide this information, along with staff responses to any ACRS recommendations, to the Commission in a paper (e.g. the FY2008 ITP summary paper) with a recommendation on fully implementing the BRIIE as an ITP indicator.

In soliciting stakeholder comments, staff should include an understandable explanation of BRIIE and how it relates to other risk-informed indicators such as those produced by ASP and the ROP. Also, comments should be solicited on the completeness of initiating event inputs to BRIIE and on the staff's plan to periodically recalculate the baseline risk against which subsequent changes in BRIIE will be measured.

Finally, the NRC public website on "Industry Trends" should, within a few months of the issuance of the ITP annual paper, be updated to discuss the BRIIE with a similar explanation of its inputs and results.