

May 7, 2015

**ATTACHED ARE SLIDES/HANDOUTS
WHICH WERE PRESENTED AT THE
PROBABALISTIC SAFETY ASSESSMENT 2015
CONFERENCE**

Improving the Processes for Establishing Technical Adequacy of Probabilistic Risk Assessments

Donnie Harrison, Senior Technical Advisor
Division of Safety Systems and Risk Assessment
Office of New Reactors
U.S. Nuclear Regulatory Commission

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Outline

- * Background
- * Improve Process for Gaining Acceptance of New PRA Methods
- * Improve Process for Closure of Peer Review Findings
- * Status and Conclusions

Background

Since the 1995 PRA Policy Statement, the NRC has steadily shifted from purely deterministic regulatory processes to risk-informed processes

- * **Risk-Informed Inservice Inspection**
- * **Risk-Informed Surveillance Intervals**
- * **Risk-Informed Technical Specification Completion Times**
- * **Risk Managed Technical Specifications**
- * **Risk-Informed Fire Protection (10 CFR 50.48c)**
- * **Risk-Informed Treatment (10 CFR 50.69)**
- * **And more coming**

Background

In 2014

NRC formed the Risk-Informed Steering Committee (RISC)

- * NRC Senior Managers, with NRR Office Director as Chair
- * Provides strategic direction to NRC staff in advancing risk-informed decisionmaking in all aspects: licensing, oversight, rulemaking, etc.

NEI also formed a industry RISC

- * Industry Senior Level Executives, Chief Nuclear Officers, & NEI

These 2 RISCs meet periodically to discuss issues and opportunities for improvement

Background

NRC's regulatory position on PRA technical adequacy for risk-informed applications is documented in Regulatory Guide 1.200

- * Concerns have been raised about the sufficiency and efficiency of the process to gain acceptance of new PRA methods and approaches
- * Concerns have also been raised about the means for closing out peer review findings on PRAs

Each RISC formed a working group of the technical staff to address these concerns

Improve Process for Gaining Acceptance of New PRA Methods

PROBLEM STATEMENT:

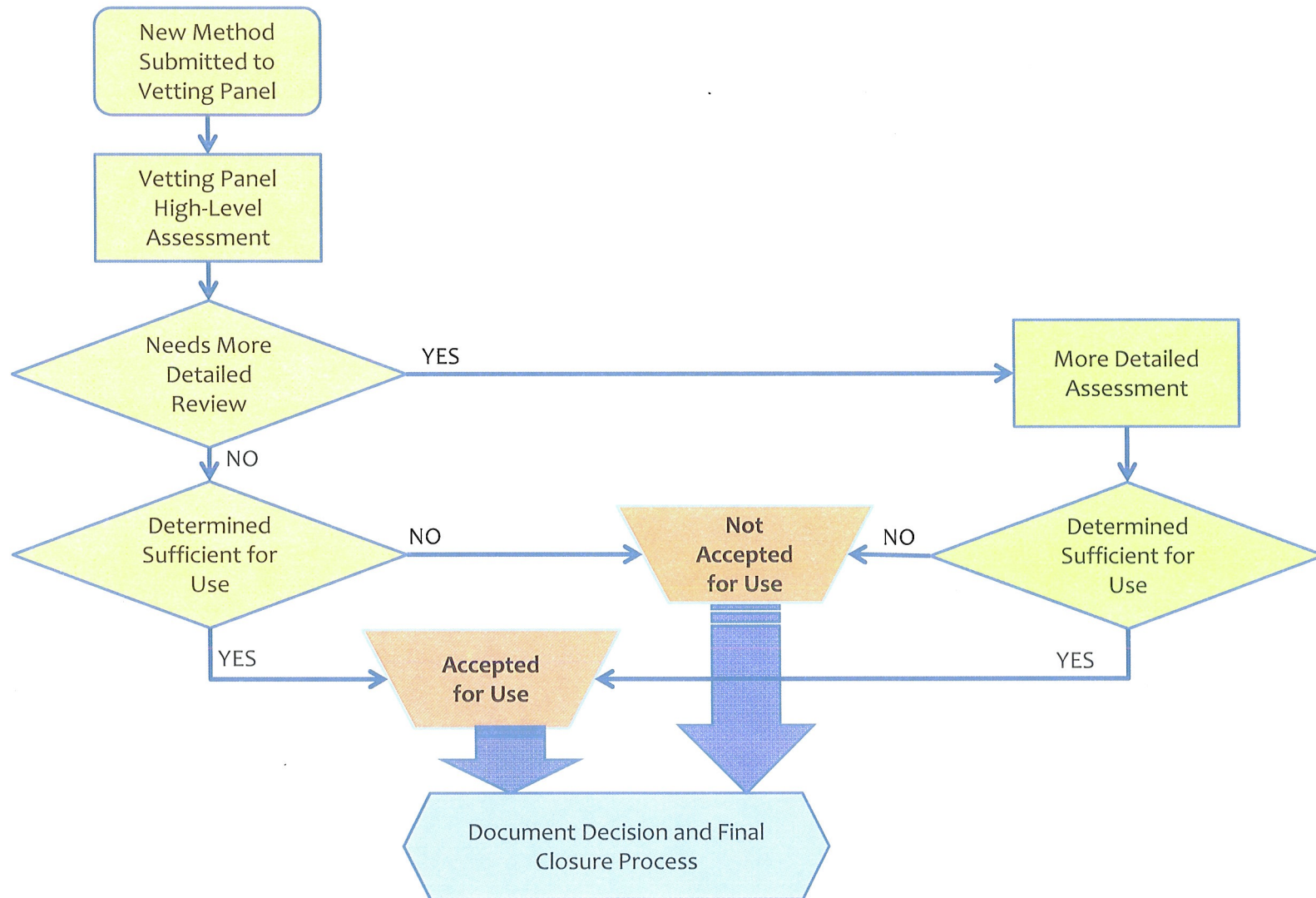
- * Before the late 1990s, industry PRAs were primarily outside the regulatory arena and there was the ability to try out new methods without much, if any, interaction with the regulator
- * With the increased use of PRAs in the regulatory arena, the regulator became much more involved in determining if these new methods were acceptable for use in regulatory applications
- * Traditionally, formal acceptance of a new method would involve submitting a Topical Report and receive an NRC review and approval
 - * Lots of time, lots of money, and usually lower priority

Improve Process for Gaining Acceptance of New PRA Methods

The 2 working groups have held numerous public meetings over the last 9 months to discuss approaches for improving the process to gain acceptance of new PRA methods and approaches

- * The Industry has reflected on those interactions and developed a white paper (Part 1) that describes their vision of this process
- * The NRC has provided comments on the white paper, including a streamlined approach to the process

NRC Proposed Process Overview



Improve Process for Gaining Acceptance of New PRA Methods

Current Status and Path Forward:

- * The industry working group has the NRC comments on their white paper
- * Both working groups have identified the need to “pilot” any new process
- * Each working group will present their positions on the white paper and path forward to their respective RISC
- * The 2 RISCs will discuss the positions on the white paper and direct their respective working group on the next steps

Improve Process for Closure of Peer Review Findings

PROBLEM STATEMENT:

- * There is no formally established and endorsed process for licensees to close-out PRA peer review findings.
 - * The guidance is geared towards how peer reviews and their findings can be used to support risk-informed applications;
- * As a result, the default is for licensees to “disposition” each finding within each risk-informed application until a completely new peer review is performed in the area of the finding, which can result in new findings
- * Industry has stated that requiring licensees to retain and report all findings is an administrative burden with minimal benefit and additional expense

Improve Process for Closure of Peer Review Findings

The 2 working groups have held numerous public meetings over the last 9 months to discuss approaches for improving the process for gaining closure of peer review findings to ensure it is cost-effective, yet robust

- * The Industry has reflected on those interactions and developed a white paper (Part 2) that describes the various options for this process
- * The NRC has provided comments on the white paper

Improve Process for Closure of Peer Review Findings

Though multiple approaches were discussed, the following 5 options were identified with Pro and Cons

- * Original Peer Review Team Close-Out
- * New Peer Review Team Close-Out
- * NRC Close-Out
- * Licensee Close-Out
- * Hybrid Approach to Close-Out

Improve Process for Closure of Peer Review Findings

Current Status and Path Forward:

- * The industry working group has the NRC comments on their white paper
- * The industry proposed option has been in flux
- * Both working groups have identified the need to “pilot” any new process
- * Each working group will present their positions on the white paper and path forward to their respective RISC
- * The 2 RISCs will discuss the positions on the white paper and direct their respective working group on the next steps

Summary

- * The 2 working groups have had significant public interactions on both concerns related to PRA technical adequacy
- * These interactions are expected to continue going into the future throughout the pilot stages

THANK YOU !!

Donnie Harrison, Senior Technical Advisor
Division of Safety Systems and Risk Assessment
Office of New Reactors
U.S. Nuclear Regulatory Commission

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Acronyms

PRA	Probabilistic Risk Assessment
RISC	Risk-Informed Steering Committee