



OFFICE OF THE  
SECRETARY

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

January 22, 1997

MEMORANDUM TO:

Hugh L. Thompson, Jr.  
Acting Executive Director for Operations

Karen D. Cyr  
General Counsel

FROM:

*John C. Hoyle*  
John C. Hoyle, Secretary

SUBJECT:

STAFF REQUIREMENTS - SECY-96-218 - QUARTERLY  
STATUS UPDATE FOR THE PROBABILISTIC RISK  
ASSESSMENT (PRA) IMPLEMENTATION PLAN,  
INCLUDING A DISCUSSION OF FOUR EMERGING  
POLICY ISSUES ASSOCIATED WITH RISK-INFORMED  
PERFORMANCE-BASED REGULATION

The Role of Performance Based Regulation in the PRA  
Implementation Plan

The Commission has approved Alternative 1 with respect to the role of performance-based regulation but applications of performance-based approaches should not be limited to risk-informed initiatives. Thus, the Commission also approves elements of Alternative 3 as follows: Performance-based initiatives that do not explicitly reference criteria derived from PRA insights should not be excluded from consideration. The staff should include in the PRA implementation plan, or in a separate plan, how these performance-based initiatives will be phased into the overall regulatory improvement and oversight program. As part of the PRA implementation plan, or its separate plan, the staff should include its plan to solicit input from industry on (or develop on its own) additional performance-based objectives which are not amenable to probabilistic risk analysis, but could be ranked according to, for example, a relative hazards analysis, and phase in these initiatives.

(EDO)

(SECY Suspense: 8/29/97)

SECY NOTE:

SECY-96-218 WAS RELEASED TO THE PUBLIC AT THE COMMISSION BRIEFING ON DECEMBER 16, 1996. THIS SRM AND THE COMMISSION VOTING RECORD CONTAINING THE VOTE SHEETS OF ALL COMMISSIONERS WILL BE MADE PUBLICLY AVAILABLE 5 WORKING DAYS FROM THE DATE OF THIS SRM.

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The staff should provide the Commission a summary discussion on how performance monitoring is being addressed in current PRA Pilot Applications and, where appropriate, other planned performance-based approaches. The staff should address the technical question concerning how the implementation and monitoring aspects of performance based regulations (Attachment 3, Item IV) are considered in these planned performance-based approaches. For the maintenance rule implementation activities, address how these issues are considered within the context of the inspection process and inspection program. These items should be addressed in the March 1997 quarterly update and in the next Commission briefing on the PRA implementation plan.

(EDO)

(SECY Suspense: 3/31/97)

The words "intolerable outcome" in the fourth key element are too vague and require further definition. For example, the words could be revised to read "failure to meet a performance criterion will not result in violation of a Safety Limit" or some other specific terminology.

(EDO)

(SECY Suspense: 8/29/97)

#### Plant-Specific Application of Safety Goals

The Commission has tentatively approved Alternative 1 with respect to plant-specific application of safety goals and/or subsidiary objectives, but prior to issuance of the final guidance, the staff should explore the legal ramifications of the use of numerical guidelines for plant specific regulatory decisions and prepare a legal analysis of the issues for the Commission. As part of this analysis, the staff should consider situations where updates or changes to licensees' PRAs (such as the underlying assumptions) result in changes to PRA results, which would cause a previously approved action to become unacceptable. The analysis should also include a discussion of the type of regulatory decisions that might be subject to litigation, an identification of the problems that such litigation might pose for the staff, and an estimate of the level of staff resources and technical support that likely would be required to address the issues in such litigation.

(OGC)

(SECY Suspense: 6/30/97)

#### Risk Neutral vs. Increases in Risk

The Commission has approved Alternative 1 which would allow for small increases in risk under certain conditions, for proposed changes to a plant's licensing basis. The legal analysis requested above should address the legal ramifications and prospects for litigation in making this change. In addition, the terms "small" and "under certain conditions" require more precise definition. The staff should provide a sound rationale for judging small increases and provide for explicit consideration of uncertainties. Criteria for judging small increases in risk

should be considered in the context of maintaining reasonable assurance that there is no undue risk to public health and safety. The staff should establish procedures to monitor the cumulative changes in risk for a given nuclear facility as the result of license amendments that are conducive to quantitative risk assessments. The staff should develop a methodology for assessing changes in risk that uses statistical concepts and gives considerations to uncertainties.

(OGC/EDO)

(SECY Suspense: 8/29/97)

The staff should, in its development of risk-informed guidance and review of applications regarding risk-informed initiatives evaluate all safety impacts of proposed changes in an integrated manner including the use of risk insights to identify areas where requirements should be increased or improvements could/should be implemented. In this regard, the staff should encourage licensees to use risk assessments for purposes of improvement that may require additional activity or effort on their part, as well as relaxation, in order to realize the full benefit of risk assessments.

The staff should also verify licensee activity in this regard, as appropriate.

(EDO)

(SECY Suspense: 8/29/97)

Implementation of Changes to Risk-Informed IST and ISI Requirements

The Commission has approved Alternative 2 allowing the staff to use the acceptable alternative provision of 10 CFR 50.55a(a)(3)(i) to approve the pilot plants' applications provided appropriate findings can be made. Where the findings necessary to approve the alternative cannot be made, then the use of exemptions should be considered. The staff should work closely with ASME and with the Code consensus process so as to expedite changes to the Code involving ISI and IST.

cc: Chairman Jackson  
Commissioner Rogers  
Commissioner Dicus  
Commissioner Diaz  
Commissioner McGaffigan  
OGC  
OCA  
OIG  
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)