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POLICY ISSUE

(Information)

November 6, 1992

SECY-92-379

For: The Commissioners

From: James M. Taylor
Executive Director for Operations

Subject: INTERAGENCY WHITE PAPER ON ENGINEERING RISK ASSESSMENT

Purpose: To transmit the subject paper to the Commission and to inform the Commission of the staff's intent to provide the subject paper to the Federal Coordinating Council on Science, Engineering, and Technology (FCCSET) Ad Hoc Working Group on Risk Assessment on November 10, 1992.

Background: As part of an effort to harmonize the use of risk analysis within the Federal government, members of the Nuclear Regulatory Commission (NRC) staff have coordinated the preparation of a white paper on Engineering Risk Analysis. This was part of a larger effort to provide support to the FCCSET Ad Hoc Working Group on Risk Assessment. The paper was developed by an interagency group led by the NRC and supported by seven other agencies. These included the Department of Energy, the Department of the Interior, the Department of Labor, the Federal Aviation Administration, the Food and Drug Administration, the National Aeronautics and Space Administration, and the National Science Foundation.

Discussion: The paper provides a summary of risk assessment activities as practiced by the eight contributing agencies. In addition, the paper lays out the principal differences between engineering risk analysis and health risk analysis.

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NOTE: TO BE MADE PUBLICLY AVAILABLE
IN 10 WORKING DAYS FROM THE
DATE OF THIS PAPER

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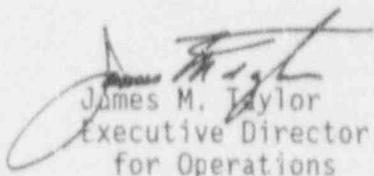
The practice of engineering risk analysis is generally predicated on some type of failure or failures of the engineered system preceding any health effect; a major step in the engineering risk assessment process is the estimation of the frequencies of events and system failures. Once an event has occurred, health risk assessment and engineering risk assessment have strong similarities in concept, but vary greatly with respect to actual methodology used.

The appendices, which are case studies describing the practice of risk assessment, represent the viewpoint of the agencies as submitted. Only minor formatting changes were made by the NRC.

After presenting the paper to the FCCSET Working Group on Risk Assessment, the staff plans to publish it, with appropriate notification in the Federal Register.

The staff notes that this paper represents an overview of the varied and complex uses of risk assessment for engineered systems. It does not represent a definitive description of "engineering risk analysis" as practiced in the Federal government. Rather it represents a step in an ongoing effort to harmonize the use of risk assessment within the Federal government.

Coordination: The Office of the General Counsel has reviewed this paper and has no legal objection to its contents.



James M. Taylor
Executive Director
for Operations

Enclosure:
White Paper on Engineering
Risk Assessment (Commissioners,
SECY, OGC only)

DISTRIBUTION:
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