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MEMORANDUM TO: Michael C. Cheek, Director
Division of Risk Analysis
Office of Nuclear Regulatory Research

FROM: John A. Nakoski, Chief /RA/
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Office of Nuclear Regulatory Research

SUBJECT: TRANSMITTAL OF WHITE PAPERS FOR GENERIC PRESSURIZED
WATER REACTOR AND BOILING WATER REACTOR
PROBABILISTIC RISK ASSESSMENT MODELS

The purpose of this memorandum is to transmit the white papers for the generic pressurized water reactor (PWR) and the generic boiling water reactor (BWR) probabilistic risk assessment (PRA) models. For this report, the Office of Nuclear Regulatory Research (RES), PRA staff worked closely with staff from the Nuclear Regulatory Authority of Japan and the Państwowa Agencja Atomistyki (Poland) and incorporated their comments into this report.

The PRA branch is providing the enclosed white paper for the generic PWR and BWR PRA models to mark initial completion of these models, which are being made publicly available. These models do not represent any specific plant, but rather are intended to be representative of a simplified PWR and BWR. These reports discuss the scope of the model, internal initiating events modeled, common-cause failure, and human failure events. The scope of the models does not reflect the level of detail typically included in NRC's plant specific standardized plant assessment risk (SPAR) models.

The reports are simply snapshots of the current status of each model, as they are both intended to provide training and development opportunities for domestic and international stakeholders. As other initiators, fault trees, and system failures are added, the model will be updated. The BWR model in particular has a very limited set of internal events categories and does not have any other hazard categories represented in the model.

Stakeholders can request access to these models and to SAPHIRE by contacting the RES/DRA/PRAB contact below or Jeff Wood (jeff.wood@nrc.gov) and completing the required non-disclosure agreement.

Enclosures: As Stated

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Enclosures:

1. Generic PWR SPAR Model White Paper
2. Generic BWR SPAR Model White Paper

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