

EDO Principal Correspondence Control

FROM: DUE: 04/08/02 EDO CONTROL: G20020191
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FINAL REPLY:

Troy W. Pruett, RIV

TO:

Travers, EDO

FOR SIGNATURE OF : ** GRN ** CRC NO:

Travers, EDO

DESC: ROUTING:

Differing Professional Opinion (DPO) Regarding the
Significance Determination Process

Travers
Paperiello
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DATE: 04/02/02

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SPECIAL INSTRUCTIONS OR REMARKS:



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March 15, 2002

MEMORANDUM FOR: William D. Travers
Executive Director for Operations

FROM: Troy W. Pruett
Senior Reactor Analyst, Region IV

SUBJECT: DIFFERING PROFESSIONAL OPINION REGARDING THE SIGNIFICANCE
DETERMINATION PROCESS

I appreciate the effort expended by the NRC to review the comments and recommendations in the Differing Professional View (DPV) I submitted in November 2001. Nevertheless, I have several concerns with the February 18, 2002, memorandum from Samuel J. Collins to Troy Pruett. Given the following concerns, I recommend that an independent review of the concerns outlined in the DPV be completed.

- (1) There were several mischaracterizations in the memorandum. I can only speculate that the mischaracterizations were the result of the individuals responsible for drafting the document. Most notably, all of the individuals on concurrence were from the inspection program branch. This indicates to me, that my recommendations to perform an independent review of the significance determination process were not seriously considered. This view is supported by the following example of a comment, made after the filing of the DPV, from personnel assigned to the inspection program branch: "The only problem with the SDP is a lack of understanding on your part."
- (2) "These notebooks were independently developed....."

To the contrary, the site specific notebooks are not independent. The notebooks are a simplified version of the original Individual Plant Examinations (IPEs) which were developed by the licensees. It is my understanding that the specific details of the models used to develop the IPEs have never undergone a complete validation and verification process. In addition, there is no process to specifically review changes to the licensees' probabilistic safety assessment (PSA) models.

Secondly, the national laboratory that developed the notebooks did not reference or review the updated PSA models. During an onsite visit to the national laboratory, I was frequently informed that the analyst's judgement was used to model systems when the licensee's IPE drawings and tables were either inadequate or illegible. Consequently, several of the notebooks I reviewed did not accurately reflect the plant.

- (3) "Not withstanding the ongoing challenges, the Phase 2 site specific risk-informed inspection notebooks....."

I do not believe that the notebooks are "risk-informed." Per the NRC's Policy Statement on the use of probabilistic risk assessment methods, risk-informed implies that PRA technology uses state of the art methods, reduces unnecessary conservatism, and is as realistic as possible. With respect to the Phase 2 notebooks, the NRC did not use the best available technology, knowingly implemented an over-conservative tool, and did not use realistic plant specific input parameters.

- (4) "... there are substantial benefits to be gained from using the notebooks."

I am not aware of "substantial benefits" stemming from the development of the notebooks. The DPV letter documented several "substantial problems" with the notebooks. The DPV ad-hoc panel appropriately upheld most of the concerns in the DPV letter and recommended that a review of the significance determination process (SDP) be completed. However, the DPV ad-hoc panel did not specify any limitations on the organization sponsoring the review.

- (5) "Therefore, I do not agree with the central recommendation of the DPV to discontinue use of the Phase 2 plant specific risk-informed inspection notebooks."

This statement is out of context. There were several recommendations regarding the SDP. What was suggested, and later confirmed during a discussion with the DPV ad-hoc panel, was that the NRC needed to complete an independent assessment of the SDP tools to determine which was the most cost effective and suitable methodology for the NRC's needs. In the interim, the continued development and expenditure of resources for both the Phase 2 notebooks and the SPAR models should be suspended.

The improvement strategies were developed without completion of an evaluation to determine if the use of the site specific notebooks is in the best interest of the NRC. Continued development, without the benefit of a program review, may perpetuate the reluctance to consider new and alternative approaches.

I also have the following concerns with the implementation of two of the recommendations from the DPV ad-hoc panel described in the January 10, 2002, memorandum from William D. Beckner to Ellis W. Merschoff.

- (1) The panel recommended that the program office undertake a review of the overall SDP program. The panel suggested that the review take place before finalization of the improvement strategies.

I believe it is inappropriate for the inspection program branch to sponsor the review of the SDP process. To ensure an unbiased, independent, and credible review is completed, this effort should be led by a Senior Executive Service manager knowledgeable of probabilistic methods and not substantially involved with the development of risk assessment tools for the NRC (e.g.; Elmo Collins or Melvyn Leach). It has been my personal experience that the inspection program branch is unwilling to accept feedback from the staff or critically assess developing programs under their span of control.

- (2) The program office should issue formal guidance that a Phase 3 analysis should be performed if the accuracy of the Phase 2 notebook is in question.

As of March 12, 2002, the program office is still requiring that resources be expended on completing a Phase 2 analysis even when the analyst has determined that the Phase 2 notebook accuracy is suspect. When the accuracy of the site specific notebook is in question, the analyst should be able to proceed directly to a Phase 3 analysis in order to save resources and produce a product which improves the understanding of the risk significance of the condition or event.

Pursuant to Management Directive 10.159, please make all materials associated with my differing professional view and opinion available to the public with release of my name.