



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
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September 6, 2005

MEMORANDUM TO: Stuart A. Richards, Chief  
Inspection Program Branch  
Division of Inspection Program Management  
Office of Nuclear Reactor Regulation

FROM: Troy Pruett, Chief  
Division of Reactor Projects Branch D, Region IV

SUBJECT: REVIEW OF PROGRAM DOCUMENTS INCLUDED IN ML052100366

Attached are my comments regarding the review of the program documents included in ML052100366. Please contact me at (817) 860-8173 for questions regarding the Inspection Manual Chapter 0609 comments.

Attachment: As stated

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SISP Review Completed: \_\_TWP\_\_ ADAMS: / Yes  No Initials: \_\_TWP\_\_  
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S:\DRP\DRPDIR\Stu Richards Memo from Troy.wpd

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## Attachment

### **Manual Chapter 0609**

0609-01: Second paragraph. The last sentence should be deleted. The NRC's policy statement on the use of PRA intends that the Agency use "state-of-the-art" technology when using PRA information. Maintaining reliable, effective, and efficient communications with the Agency's stakeholders may necessitate a delay in reaching a final SDP decision in order to develop an appropriate analytical method or tool. This philosophy is in keeping with Objective 1 and 2 of Manual Chapter 0609 in that it ensures the use of the "best available information" and accurately "communicates the potential safety significance on inspection findings." The changes reflected in the draft revision emphasize production over quality. The revised approach is a departure from the Agency's Effectiveness Strategic Goal in that it departs from the use of state-of-the-art methods and leads to the use of unrealistically conservative assumptions.

### **Manual Chapter 0609 Appendix A**

Section III, Phase 2: The revisions to the use of the Phase 2 analysis or modified Phase 2 analysis should be revised to require the confirmation of a Phase 2 result with a detailed confirmatory analysis (Phase 3 analysis). Specifically:

1. Due to the limitations of the Phase 2 notebooks, the SDP result typically contains errors. These errors include results for which the dominant cutsets do not align with the SPAR model or licensee PRA model; and over conservatism with equipment failure probabilities, initiating event frequencies, and human error probabilities.
2. Communication of the Phase 2 or modified Phase 2 result without the benefit of a more detailed confirmatory analysis has the potential to misinform the public regarding the significance of a finding. This is not in keeping with the Agency's Openness Strategic Goal. Specifically, a responsible and effective regulatory process includes an involved and well informed public. By only communicating the results of the Phase 2 analysis the Agency may not provide accurate information to the public regarding the basis for the risk significance of the finding.
3. Communication of the Phase 2 or modified Phase 2 result without the benefit of a more detailed confirmatory analysis is not in keeping with the Agency's Safety Strategic Goal. Specifically, the Phase 2 process is not an updated state-of-the-art methodology based on sound science. The Phase 2 methodology does not represent a systematic improvement in the NRC's regulatory program. The Phase 2 methodology is widely criticized in the PRA community as a tool with limited, if any, practical application in the determination of the significance of a finding.
4. Communication of the Phase 2 or modified Phase 2 result without the benefit of a more detailed confirmatory analysis is not in keeping with the Agency's Effectiveness Strategic Goal. Specifically, the Phase 2 methodology represents a departure from the use of information technology to improve the efficiency of the Agency. More sophisticated methods and user-friendly tools exist to complete the significance determination of a finding. These more sophisticated tools also provide a much greater

level of accuracy than the Phase 2 methodology. Converting the Phase 2 Notebooks to an Excel spreadsheet will not result in an improvement in the use of information technology. Note that the development of other tools was assigned a high priority with a short term schedule by the Significance Determination Process Task Group (SDPTG). The memorandum from James Johnson to William Travers dated June 28, 2002, regarding the, "Differing Professional Opinion Concerning the Significance Determination Process," specified that, "With an improved interface, the SPAR models could be made user friendly and have the potential to produce an output consistent with the output of the notebooks and make a significant improvement in the quality of the analysis performed to assess the safety significance of inspection findings."

5. Attempts to modify the Phase 2 result are time consuming and constitute a work-around for known weaknesses in the Notebooks. More efficient use of SRA resources could be obtained by directly proceeding to a confirmatory Phase 3 analysis.
6. Communication of the Phase 2 or modified Phase 2 result without the benefit of a more detailed confirmatory analysis is not in keeping with the memorandum from James Johnson to William Travers dated June 28, 2002, regarding the, "Differing Professional Opinion Concerning the Significance Determination Process." Specifically, the DPO Panel was concerned with the promotion of the Phase 2 notebooks based on the espoused capabilities which have not been demonstrated. Notwithstanding the efforts of the SDPTG, the capabilities of the Phase 2 notebooks have not improved.