

Greenwood, Carol

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**From:** Gibson, Kathy *RES*  
**Sent:** Thursday, September 30, 2010 2:48 PM  
**To:** Tinkler, Charles  
**Cc:** Yerokun, Jimi  
**Subject:** Fw: SOARCA/Levl 3 PRA CA Note  
**Attachments:** Level 3 PRA Input for SOARCA CA Note - Draft 09282010 (3).docx

Here it is, comments?

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**From:** Coe, Doug  
**To:** Yerokun, Jimi; Sheron, Brian  
**Cc:** Lui, Christiana; Gibson, Kathy; Valentin, Andrea; Lyons, James; Santiago, Patricia  
**Sent:** Wed Sep 29 17:58:06 2010  
**Subject:** RE: SOARCA/Levl 3 PRA CA Note

Thanks very much Jimi. I've attached a re-tooled version of the draft CA note that just re-organizes it somewhat and adds a bit more detail on the Level 3 PRA discussion. See if you think it improves the 'flow'.

Brian – I've included you on this to get an early reading from you on whether this is heading in a direction you are OK with. We will continue to work with DSA to refine it, and if you have any re-direction or comments it would be good for us all to know now.

Doug

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**From:** Yerokun, Jimi  
**Sent:** Wednesday, September 29, 2010 2:10 PM  
**To:** Lui, Christiana; Gibson, Kathy; Valentin, Andrea; Coe, Doug  
**Cc:** Barr, Jonathan; Hudson, Daniel; Stutzke, Martin  
**Subject:** SOARCA/Levl 3 PRA CA Note

Ladies and Gentlemen – A draft integrated CA note that addresses both SOARCA and Lvl 3 PRA is attached. If there is a need for major philosophical changes, I'd recommend we schedule a meeting and hash things out. Otherwise, Jon and Dan can get together to work out any minor changes/revisions and have the document technical edited.

I thought a page is appropriate so that it does not get turned into something else. The 1<sup>st</sup> paragraph integrates both studies. The sentence in italics may not be needed, but I'd rather the PRA guys make the call on that. The 2<sup>nd</sup> paragraph focuses on SOARCA and contains a condensed version of the information that OEDO requested we include in the CA note for SOARCA. The 3<sup>rd</sup> paragraph is on the lvl 3 PRA.

Regards,

***Jimi T. Yerokun***

### SOARCA/Level 3 PRA CA Note

This CA note provides an update on the staff's plans for completing the state-of-the-art reactor consequence analysis (SOARCA) study as well as the plan for the proposed new Level 3 probabilistic risk analysis (PRA) that was discussed during the February 2010, Annual Commission Briefing on Research Programs, Performance, and Future Plans. In SRM M100218, the Commission directed the staff to continue internal coordination efforts on the proposed Level 3 PRA and to engage external stakeholders in formulating a plan and scope for Commission consideration by February 2011. The staff currently plans to provide its final report and recommendations on SOARCA to the Commission in June 2011, predicated on not encountering any significant delays in the public review and comment process.

The staff believes that, for the reasons noted below, one policy paper that integrates both studies should be submitted to the Commission. Therefore, the staff plans to submit an extension request for the Level 3 PRA Commission paper to extend the due date to June 2011 and to combine it with the SOARCA Commission paper. The advantages of combining these two papers arises from the fact that the SOARCA study integrates and analyzes severe accident progression and offsite consequences, both of which are essential elements of a Level 3 PRA. The proposed Level 3 PRA will seek to leverage the SOARCA methods, models, and insights gained. A combined Commission paper will facilitate informed Commission decision-making on whether and how to proceed with either or both studies.

The results of the SOARCA study will be documented in a NUREG. The activities and the schedule for completing the study were discussed at a Commission Technical Assistants briefing on September 3, 2010. A detailed schedule reflecting the critical activities to be completed is reflected in revision 5 of the SOARCA Communication Plan (ML102720007). The draft SOARCA NUREG will be provided to the Commission by October 29, 2010. An internal outreach process will take place in November - December 2010 in which the draft NUREG will be provided to the program offices for review and project staff will provide briefings for the regional offices as necessary. The staff also plans to meet with the Federal Emergency Management Agency to discuss the techniques used in SOARCA to model the results since their role in emergency response regulation is very closely tied to the SOARCA project. Other Federal and state agencies, licensees of the pilot plants, and congressional staffs will be notified and briefed as needed prior to the public release of the draft NUREG in January 2011. The releases of the draft NUREG for public review and comment will be accompanied by the release of a SOARCA Information Brochure which explains the project approach and results in non-technical language. The staff will conduct public meetings in the vicinity of the two pilot plants and one near NRC headquarters to provide the public the opportunity to communicate face-to-face with staff. Additionally, a series of webinars on SOARCA will take place, aimed for interested State and Local officials as well as other Federal officials. After all external and internal stakeholders, including the ACRS, comments have been addressed the report will be finalized and provided to the Commission in June 2011.

Any Level 3 PRA includes the frequency of initiating events, the probabilities associated with plant and operator failures, and the consequences associated with core damage when it is assumed to occur. The proposed Level 3 PRA is intended to account for all site risk contributors, including multi-unit effects and accidents, internal and external initiating events, and radiological hazards such as spent fuel. As noted, the consequences aspect is crucial to this PRA and is expected to benefit from SOARCA insights, tools, and methods. Thus, the full coordination of these two efforts is necessary to achieve the maximum regulatory value from each.