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**State - of - the - Art Reactor Consequence Analyses
Planned Activities for CY 2007
July 27,2007**

Major Activities:

- Identify remain volunteers for initial scope of SOARCA
- Contract Adjustments
- Revise schedule
- Develop Commission paper on dose threshold
- Steering Committee Meeting
- Complete initial analyses for Peach Bottom
- Steering Committee Meeting
- Complete initial analyses for Surry
- Steering Committee Meeting
- Submit Peach Bottom and Surry initial results to Commission
- ACRS Full Committee Briefing
- Commission TA Briefing
- Public Meeting

Identify Remain Volunteers for Initial Scope of SOARCA:

Planning activities are on going for contacting a list of preselected licensees to obtain additional volunteers for SOARCA. As a result of the last Commission TA briefing, the staff received a comment from Commissioner Lyons' Office question our decision to limit the initial scope of SOARCA to five plants. Therefore, before determining the final list of volunteers, the staff needs to obtain feedback from the Commission, through the OEDO, to determine the number of sites that need to be included in the initial scope of SOARCA. Over the next two weeks, NRC management will contact a number of sites to secure the number of volunteers that will makeup the initial scope of SOARCA. If the staff is unable to obtain the need number of volunteers, NRC management will select the additional sites needed for the initial scope. The sites selected will be notified that the staff will include them in the SOARCA and give them option to participate in the process if they do so desire.

Responsible Individual: Jimi Yerokun

Complete: 08/12/2007

Contract Adjustments:

The statement of work is currently being adjusted to reflect the current project plan and to add a new task to obtain contract support for risk communication.

- RJP will complete development of the revised Form 173 08/01/2007
- RES/DRASP review (JY, JM) 08/08/2007

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- Submit final Form 173 for processing 08/10/2007

Responsible Individual: Robert Prato

Estimated Complete: 09/14/2007

Revise Schedule:

Upon determining the number of plants that will makeup the initial scope for SOARCA, the team will begin developing a revised schedule. Much has been learned from the work completed on the first two analyses currently in progress. The revised schedule will reflect this improved understanding. In addition, work on the third plant was scheduled to begin in early June, therefore the schedule for the next three plants will extend beyond September 2008. If the initial scope for SOARCA is expanded to include 8 sites, the schedule may extend into the first half of FY 2010. The project Complete for the revised schedule is dependent on identifying the remaining volunteers for initial scope of SOARCA. However, if the initial scope of the SOARCA is finalized by 08/17/2007 a new schedule will be developed within two weeks. This development process will include getting input from the SOARCA team and Sandia.

- Complete development 08/31/2007
- DRASP Review (JY, JM) 09/07/2007
- Present it to RES management (FE, et al) 09/14/2007

Responsible Individual: Robert Prato

Complete: 09/14/2007

Develop Commission Paper on Dose Threshold:

The staff is proposing that the SOARCA use a single dose threshold based on detectable health effects to allow the staff to present the SOARCA results in terms consistent with risk communication techniques. The OEDO is concerned that this approach border on, and will be interpreted as, a policy issue. The proper approach to present a policy issue to the Commission is through a Commission paper. Therefore, the staff has been asked to prepare a policy paper regarding the use of a single threshold based on detectable health effects. This activity is currently ongoing.

- Draft developed 08/10/2007
- SOARCA Team review 08/17/2007
- DRASP Review (JY, JM) 08/24/2007
- Division Director DRASP Review 08/31/2007
- Steering Committee Review 08/31/2007
- RES Office Review, Submit to OEDO 09/07/2007

Responsible Individual: Randy Sullivan

Complete: 09/07/2007

Truncation of Sequence Groupings Selected for SOARCA:

We are frequently asked why the scenarios selected for SOARCA are limited to sequence groupings with a CDF $\geq 1.0E-6$ ($\geq 1.0E-7$ for Bypass Events). Further more, certain members of the ACRS constantly challenges the decision to perform consequence analyses using computer models instead of performing a level 3 PRA. Therefore, the staff is preparing a documented position on this matter to better respond to future inquiries. The scope of this paper will include a clean concise definition of the project, a discussion of the effectiveness of computer modeling in the SOARCA application including a comparison between the computer modeling approach and PRA, and why truncate sequence grouping using a CDF $\geq 1.0E-6$ ($\geq 1.0E-7$ for Bypass Events) as the initial focus of our study. This activity is currently ongoing.

- Draft developed 08/10/2007
- SOARCA Team review 08/17/2007
- DRASP Review (JY, JM) 08/24/2007
- Division Director DRASP Review 08/31/2007

Responsible Individual: Lead Charles Tinkler Complete: 08/31/2007
Richard Sherry

Steering Committee Meeting:

Inform the steering committee of the sequence groupings, mitigative measures, structural analyses results from first two plants and any preliminary results available to the staff. In addition, we will discuss the results of our effort to obtain more volunteers and the plan for presenting the results to the Commission (include a draft of the cover memo and a sample of the results using the Peach Bottom E-21 results). This is a routine update to keep the Steering Committee informed of the results and processes to avoid any issues as the project moves forward.

- SOARCA Team prepares slides 08/08/2007
- PM put slides into a single presentation and submit for review 08/09/2007
- DRASP Review (JY, JM) 08/15/2007
- Division Director DRASP Pre-brief 08/20/2007

Responsible Individual: Robert Prato Complete: 08/23/2007

Complete Initial Analyses for Peach Bottom:

Initial results for Peach Bottom are completed.

Responsible Individual: SNL / Jason S./ Jocelyn M./ Charles T. Complete: 08/28/2007

Document Initial Results for Peach Bottom:

Initial results for Peach Bottom are documented using the format outlined in Attachment 1 to this plan. Will serve as an attachment for the Commission cover memo presenting the initial results for Peach Bottom and Surry.

- Team Meeting on results 08/28/2007
- Rich S./ Bob P./ Jason S./ Jocelyn M. documents results 08/30/2007
- DRASP Reveiw (JY, JM) 09/04/2007
- Division Director DRASP Pre-brief 09/06/2007

Responsible Individual: Charles Tinkler Complete: 09/06/2007

Complete Initial Analyses for Surry:

Initial results for Surry are completed.

Responsible Individual: SNL / Jason S./ Jocelyn M./ Charles T. Complete: 09/11/2007

Schedule Commission TA Briefing:

Schedule a Commission TA briefing in late October to present the Peach Bottom and Surry results.

Responsible Individual: Robert Prato Complete: 09/11/2007

Document Initial Results for Surry:

Initial results for Surry are documented using the format outlined in Attachment 1 to this plan. Will serve as an attachment for the Commission memorandum presenting the initial results for Peach Bottom and Surry.

- Team Meeting on results 09/11/2007
- Rich S./ Bob P./ Jason S./ Jocelyn M. documents results 09/13/2007
- DRASP Reveiw (JY, JM) 09/18/2007
- Division Director DRASP Pre-brief 09/20/2007

Responsible Individual: Charles Tinkler Complete: 09/20/2007

Steering Committee Meeting:

Inform the steering committee of the initial results for Peach Bottom and Surry including a brief review of sequence groupings, mitigative measures, and structural analyses results from first two plants; and the initial MELCOR, and MACCS (including meteorological and emergency preparedness information) results for Peach Bottom and Surry. This is a routine update to keep the Steering Committee informed in preparation of the upcoming ACRS and Commission TA briefing. At the end of this meeting the Steering Committee will be fully aware of the fact that the Commission will be informed that the results have been presented to, and accepted by, the Steering Committee. Because of time constraints, the steering committee will not concur on the memorandum forwarding the initial results to the Commission.

- Determine the content and outline (Team, JY, JM,) 09/06/2007
- Bob P./Jason S./ Jocelyn M. prepares slides 09/11/2007
- PM put slides into a single presentation and submit for review 09/13/2007
- DRASP Review (JY, JM) 09/19/2007
- Division Director DRASP Pre-brief 09/24/2007

Responsible Individual: Robert Prato

Complete: 09/28/2007

Submit Peach Bottom and Surry initial results to Commission:

Prepare a simple cover memo for the Commission paper no later than 09/14/2007 that states that the results are attached, these results have been presented to, and accepted by, the steering committee, these results will be presented to the ACRS on 10/DD/2007, and the TA briefing is scheduled for 10/DD/2007. Include the Peach Bottom and Surry results developed above as attachments to the memorandum

- PM prepares cover memo 08/10/2007
- DRASP Review of cover memo (JY, JM) 08/17/2007
- PM attaches approved PB and Surry results to memo 09/13/2007
- DRASP Review (JY, JM) 09/17/2007
- Division Director DRASP Pre-brief 09/19/2007
- Office of Regulatory Research concurrence by 09/21/2007 09/21/2007
- OEDO concurrence 09/28/2007

Responsible Individual: Robert Prato

Complete: 09/28/2007

ACRS Full Committee Briefing:

The staff is scheduling an ACRS full committee meeting for the beginning of

10/2007 to present the Peach Bottom and Surry results.

- The PM will coordinate with OGC to establish a need to make the ACRS full committee meeting to present the Peach Bottom and Surry results a closed meeting 08/24/2007
- Slides¹ prepared 09/13/2007
- DRASP Review (JY, JM) of slides copy sent Division Director 09/18/2007
- Division level pre-brief 09/20/2007
- Office level pre-brief 09/28/2007

Responsible Individual: Robert Prato

Complete: 10/12/2007

DEDO and Commission TA Briefing:

Pre-brief the DEDO and brief the Commission TAs no later than 10/31/2007 to present the Peach Bottom and Surry results

- Determine the content and outline (Team, JY, JM,) 09/18/2007
- Prepare slides¹ 09/28/2007
- DRASP Review (JY, JM) of slides copy sent Division Director 10/03/2007
- Division level pre-brief 10/09/2007
- Office level pre-brief 10/11/2007
- DEDO pre-brief, no later than 10/19/2007
- Commission TAs pre-brief, no later than 10/31/2007

Responsible Individual: Robert Prato

Complete: 10/31/2007

Public Meeting:

Schedule a SOARCA public meeting by 09/15/2007, identify location, and reserve a facility, if necessary for late November, early December.

- Determine the content and outline (Team, JY, JM,) 10/18/2007
- Division Directors approval of content 10/24/2007
- Prepare and issue a public notice as early in the process as reasonable, by 11/01/2007
- Prepare all presentation slides no later than 11/05/2007
- DRASP Review (JY, JM) of slides copy sent Division Director 11/07/2007
- Division level pre-brief 11/13/2007
- Office level pre-brief 11/15/2007

¹

The outline for the slides for the ACRS and Commission TA briefings will be identical. The information presented at the Commission TA brief will be a little less technical but changes to the slides should not be significant.

- DEDO pre-brief, no later than
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Responsible Individual: Robert Prato

11/19/2007

Complete: 12/21/2007

“Licensee Name” Initial Results
State - of - the - Art Reactor Consequence Analyses
MM/DD/YYYY

“First Sequence Grouping Title”

Sequence Description: A brief description of the sequence, ~ 4 to 6 lines

Mitigative Measures Assessment: A summary of mitigative measures of not more than 2 - 3 paragraphs

Accident Progress Evaluation: A summary of the effects of the mitigative measures on the sequence and the resulting delay/prevention of core damage, delay/prevention of containment failure, and/or the source term and time of release.

Consequence Analyses: For those sequences that result in a source term, provide a summary of the meteorological effects and emergency response and a description of the effects on the population

Results: The presentation of the final results in the following format:

Sequence Name	Consequence in terms of Fatalities	Consequences in terms of Risk
Seismic Initiated SBO	Sum of early and latent fatalities	Number of fatalities per RY

Note: Each sequence result is not to exceed two pages.