

**Greenwood, Carol**

**From:** Gibson, Kathy - RES  
**Sent:** Thursday, January 20, 2011 12:24 PM  
**To:** Ghosh, Tina; Scott, Michael; Chang, Richard  
**Cc:** Uhle, Jennifer  
**Subject:** RE: SOARCA Intro for 3pm CRCPD meeting today  
**Attachments:** Kathy Halvey Gibson.vcf; image001.jpg; SOARCA Intro Rev1.docx

Looks great, thanks! I cautioned Richard about addressing anything to do with due dates and timing as we do not the Commission to hear about a delay from anyone but us. The way you've addressed this (that the states will be notified about public comment, etc through press releases) is perfect.

	<b>Kathy Halvey Gibson</b>
	Deputy Director Division of Systems Analysis
	Kathy.Gibson@nrc.gov (301) 251-7499 Work
	(b)(6)
<small>U.S. Nuclear Regulatory Commission Office of Nuclear Regulatory Research Protecting People and the Environment</small>	

6/2/11

**From:** Ghosh, Tina  
**Sent:** Thursday, January 20, 2011 10:25 AM  
**To:** Gibson, Kathy; Scott, Michael  
**Cc:** Chang, Richard  
**Subject:** SOARCA Intro for 3pm CRCPD meeting today

Dear Kathy and Mike,

Attached is the SOARCA intro that Richard plans to share verbally during the CRCPD meeting today, for an initial early reach-out to the states. Please send us any comments/revisions. Note that Richard pulled this material off the SOARCA website.

Thanks,  
Tina

As an effort to reach out to our State partners, I wanted to inform this group about the NRC's State-of-the-Art Reactor Consequence Analyses (SOARCA) project.

The SOARCA project, conducted by the U.S. Nuclear Regulatory Commission (NRC), is a research effort to realistically estimate the outcomes of postulated severe accident scenarios that might cause a nuclear power plant to release radioactive material into the environment.

The project uses computer models and simulation tools to conduct an in-depth analysis of two operating nuclear power plants, a boiling-water reactor and a pressurized-water reactor. Following completion of this study, the NRC will present the results and conclusions in a draft NUREG-series report. That draft report will be made available for public review and comment before being finalized. Details on the process and the timing of public involvement, including meetings the NRC will conduct to facilitate such involvement, will be announced through press releases and notices in the *Federal Register*.

The SOARCA team used core damage frequency (CDF) to select scenarios. To help identify scenarios with a relatively high CDF, the project team used the Enhanced Standardized Plant Analysis Risk (SPAR) models. These models include specific information about each plant's design, systems, and components, and how they all interact.

The SOARCA project team selected accident scenarios with a CDF higher than  $10^{-6}$  (i.e., "one-in-a-million") per year to focus attention on more likely accident scenarios (though still highly unlikely). This selection method allowed SOARCA to analyze the most likely, yet very remotely possible, severe accident scenarios, improving understanding of a severe accident's likely consequences.

The team also selected some lower probability accidents for analysis because of their potential to result in very high consequences. Thus, for the less likely severe accidents (such as containment bypass or early containment failure scenarios) that could have significantly greater consequences, the staff used a lower CDF criterion of  $10^{-7}$  (i.e., "one-in-ten-million") per year to select scenarios for analysis.

Any questions?

**Greenwood, Carol**

---

**From:** Gibson, Kathy *RES*  
**Sent:** Thursday, January 20, 2011 12:30 PM  
**To:** Scott, Michael; Ghosh, Tina; Chang, Richard  
**Subject:** RE: SOARCA Intro for 3pm CRCPD meeting today  
**Attachments:** Kathy Halvey Gibson2.vcf; image001.jpg

I guess maybe we all should meet since Richard and I discussed some more and he feels that the changes I requested will significantly impact the schedule. So let's chat together to all get on the same page. ☺

	<b>Kathy Halvey Gibson</b> Deputy Director Division of Systems Analysis
	Kathy.Gibson@nrc.gov (301) 251-7499 Work
	(b)(6)
	<small>US Nuclear Regulatory Commission Office of Nuclear Regulatory Research Protecting People and the Environment</small>

*57-6*

**From:** Scott, Michael  
**Sent:** Thursday, January 20, 2011 12:24 PM  
**To:** Gibson, Kathy; Ghosh, Tina; Chang, Richard  
**Subject:** RE: SOARCA Intro for 3pm CRCPD meeting today

Richard:

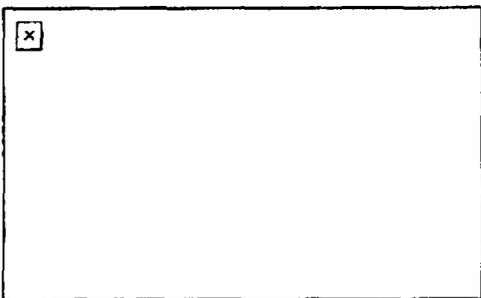
After discussing schedule with Kathy, I will have a few more changes for your schedule. Can you meet me at the office at 5pm? I'm in training until then.

Mike

---

**From:** Gibson, Kathy  
**Sent:** Thursday, January 20, 2011 12:23 PM  
**To:** Ghosh, Tina; Scott, Michael; Chang, Richard  
**Cc:** Uhle, Jennifer  
**Subject:** RE: SOARCA Intro for 3pm CRCPD meeting today

Looks great, thanks! I cautioned Richard about addressing anything to do with due dates and timing as we do not the Commission to hear about a delay from anyone but us. The way you've addressed this (that the states will be notified about public comment, etc through press releases) is perfect.



*P/100*

**From:** Ghosh, Tina  
**Sent:** Thursday, January 20, 2011 10:25 AM  
**To:** Gibson, Kathy; Scott, Michael  
**Cc:** Chang, Richard  
**Subject:** SOARCA Intro for 3pm CRCPD meeting today

Dear Kathy and Mike,

Attached is the SOARCA intro that Richard plans to share verbally during the CRCPD meeting today, for an initial early reach-out to the states. Please send us any comments/revisions. Note that Richard pulled this material off the SOARCA website.

Thanks,  
Tina