NRC DIGITAL I&C SYSTEM RESEARCH PRIORITIES

U.S. Nuclear Regulatory Commission Public Meeting
Regarding Technical I&C Communication Issues
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PRIORITIZATION OF RESEARCH

- NRC Digital System Research Plan for FY 2005 - 2009 is a flexible, adaptable framework with a number of research initiatives
  - 27 Projects across 6 Research Programs (ML061150050)
- As research projects are completed new work is started if resources are available
- NRC is currently working (or will initiate soon) 13 research projects
- The Federal Government is currently under a budgetary “continuing resolution (CR)”
  - cannot spend more than FY06 funding levels until Congress/President approves FY07 federal budget.
  - No new starts
- The staff has established short term priorities for conducting research in light of resource restrictions imposed by the Continuing Budget Resolution.
- The staff is seeking industry comment on these priorities

PRIORITIZATION OF RESEARCH

- Short-term Priority Research Projects-Funding will not be impacted by Budgetary Continuing Resolution (CR)
  - Diversity and Defense-in-Depth research (~August 2007)
  - Highly Integrated Control Rooms research including interchannel and SR-NSR system communications (~August 2007; dependent on availability of design information)
  - Cyber Security Assessments research (based on availability of licensee and vendor hardware and software, initial results should be available in July 2007)
  - FPGAs (~August 2007)
  - DG-1142, “Guidelines for Environmental Qualification of Safety Related Computer-Based I&C Systems in Nuclear Power Plants” (March 2007)
  - Digital System Risk research (~Mid 2008)
  - On-line Monitoring research (~May 2007)

- Other Priority Research Projects-Funding could be impacted by CR
  - Digital System Dependability research
  - Regulatory Guide 1.105, “Setpoints for Safety-Related Instrumentation” update
  - Emerging Technologies research
  - Quantitative Software Quality Assurance Methods research
  - EMI/RFI research
  - Wireless Technology research