

Regulatory Guide Periodic Review

Regulatory Guide Number: 1.97, Revision 4

Title: Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants

Office/Division/Branch: RES/DE/MEEB
Technical Lead: Paul Rebstock

Staff Action Decision: Reviewed with issues identified for future consideration

1. What are the known technical or regulatory issues with the current version of the Regulatory Guide (RG)?

Standard Update in 2010

RG 1.97 Rev 4 endorses IEEE Std 497-2002 with clarifications as noted in Section C of the RG. The standard was updated in 2010 and a Project Authorization Request (PAR) was recently approved to complete a new revision of the standard by 2014. The PAR includes a joint logo effort with IEC. Under the joint logo process, the WG will consider existing IEC and IAEA standards and terminology.

Fukushima Lessons Learned

Lessons learned from all stakeholders, including the Japanese consortium, are being reviewed for impact to IEEE-Std-497. The Japanese government, regulator and major vendors together are proposing significant changes in post accident monitoring including separate, isolated channels, separate and portable power sources, and heightened component qualification. The working group (WG) will consider the NRC Spent Fuel Pool (SFP) order, as well. Since these activities are currently in progress, and that it is expected that significant changes will be forthcoming in the area of severe accident and beyond-design-basis external events, per the Near Term Task Force ACRS Recommendation 2e, the NRC will hold off revising RG 1.97 until these areas progress to the point where a clear set of guidance is apparent.

Reference WG 6.1 summary in ML13035A210 including the meeting minutes in Attachment 1. Unlike the 2010 version of the standard, the 2014 version will likely include some significant updates and an update to the RG at that time is anticipated.

10 CFR Part 52-Related Reviews

For Part 52-related reviews, some of the information needed per RG 1.97 will not be available until sometime after the review needs to be completed.

2. What is the impact on internal and external stakeholders of not updating the RG for the known issues, in terms of anticipated numbers of licensing and inspection activities over the next several years?

The RG was reviewed following the release of IEEE Std 497-2010. The changes were

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minimal and it was determined that the guidance did not need to be updated. There has been no noted impact for not updating the RG to endorse the 2010 version of the standard.

The NRC's Office of New Reactors (NRO) has encountered some difficulties applying the current version of the RG to Part 52 evaluations, but has developed a compensating approach that seems to be working adequately. Revision of the RG to address the current version of the industry standard would not help in this area — more in-depth change would be required. NRO has indicated that revision to the RG in the near term is not needed.

3. What is an estimate of the level of effort needed to address identified issues in terms of full-time equivalent (FTE) and contractor resources?

Not applicable.

4. Based on the answers to the questions above, what is the staff action for this guide (Reviewed with no issues identified, Reviewed with issues identified for future consideration, Revise, or Withdraw)?

Reviewed with issues identified for future consideration.

5. Provide a conceptual plan and timeframe to address the issues identified during the review.

The RG should be reviewed against the SFP order and NTTF recommendation 2e, but these areas are still developing. The anticipated 2014 version of the standard will have significant changes based on joint logo and Fukushima. The RG should be evaluated then.

NOTE: This review was conducted in February 2013 and reflects the staff's plans as of that date. These plans are tentative and are subject to change.