PRA Quality Expectations

To support risk-informed regulatory activities, the expectations for PRA quality need to be provided. These expectations are provided in Regulatory Guide (RG 1.200) which provides the staff position by defining an acceptable approach for defining PRA technical acceptability and the use of standards and peer review guidance to demonstrate conformance with the staff position. The status of the efforts is provided below.

Standard/Industry Guidance			NRC Endorsement	
Document	**Scope [Note 1]**	**Date Published**	**Document (RG 1.200)**	**Date Published**
PRA Standards				
ASME RA-S-2002	For operating reactors • At-power • Internal events • Internal flood • CDF and LERF	April 2002	DG 1122	Nov 2002
Addendum A	Same	Dec 2003	RG 1.200, Rev 0	Feb 2004
Addendum B	Same	Dec 2005	DG-1161 RG 1.200 Rev 1	Sep 2006 Jan 2007
Addendum C	Same	July 2007	---	---
ANS 53.21	External hazards (for operating reactors)	2004	DG-1138	Aug 2004
Revision 1 [Note 2]	Same	March 2007	---	----
ASME/ANS RA-S-2008 [Note 3]	For operating reactors • Internal hazards • External hazards	April 2008	DG-1200	June 2008

Standard/Industry Guidance			NRC Endorsement	
Document	**Scope [Note 1]**	**Date Published**	**Document (RG 1.200)**	**Date Published**
	• CDF and LERF • At-power			
Addendum A (ASME/ANS RA-Sa-2009)	Same	Feb 2009	RG 1.200, Rev 2	March 2009
Addendum B (ASME/ANS RA-Sb-2009)	Same	1st quarter CY 2011	RG 1.200, Rev 3	4th quarter CY 2011
Edition 1 [Note 4] (ASME/ANS RA-Sx-20xx)	Same plus: For operating reactors • Low power and shutdown (does not address internal fires) For pre-operational LWRs • At-power • Internal events • Internal flood • CDF and LERF	TBD	RG 1.200, Rev 4	TBD
Future Editions [Note 5] (ASME/ANS RA-Sx-20xx)	Same plus: For operating reactors • Low power and shutdown (internal fires) For pre-operational LWRs • Internal fires • External hazards • Low power and shutdown (internal and external hazards) For advanced non-LWRs [Note 4]	TBD	RG 1.200, Rev 5+ (unclear at this time whether this will be single revision or multiple revisions to RG 1.200, or if all these standards, e.g., advanced non-LWRs, will be endorsed in RG 1.200)	TBD

Standard/Industry Guidance			NRC Endorsement	
Document	**Scope [Note 1]**	**Date Published**	**Document (RG 1.200)**	**Date Published**
	• All plant operating modes • Internal and external hazards (all plant modes) • Level 1 thru Level 3			
ANS 58.24 [Note 4]	Level 2 • LWRs • Advanced LWRs • At-power conditions	TBD	RG 1.200, Rev 4+ (unclear whether standard will be endorsed in Rev 4 or some future revision to RG 1.200)	TBD
ANS 58.25 [Note 4]	Level 3 • LWRs • Advanced LWRs • Advanced non-LWRs	TBD	RG 1.200, Rev 4+ (unclear whether standard will be endorsed in Rev 4 or some future revision to RG 1.200)	TBD
Peer Review Guidance Documents				
NEI 00-02	For operating reactors • At-power • Internal events • Internal flood • CDF and LERF	March 2000	RG 1.200, Rev 0	Feb 2004
Revision 1, Self Assessment	Same	Nov 2006	RG 1.200, Rev 1	Jan 2007
NEI 05-04	For operating reactors, PRA Update for PRA standard scope of: • At-power • Internal events	Aug 2006	RG 1.200, Rev 1	Jan 2007

Standard/Industry Guidance			NRC Endorsement	
Document	**Scope [Note 1]**	**Date Published**	**Document (RG 1.200)**	**Date Published**
	• Internal flood • CDF and LERF			
Revision 2	Same	Nov 2008	DG-1200 RG 1.200, Rev 2	June 2008 March 2009
NEI 07-12	For operating reactors, Internal Fire	Dec 2007	DG-1200	June 2008
Draft H	same	Nov 2008	RG 1.200, Rev 2	March 2009
Draft G	same		RG 1.200, Rev 3	4th quarter CY 2011
Not Identified	Address the remaining scope pieces of the PRA standards for both operating and new and advanced reactors	TBD	RG 1.200, Rev 4+	TBD

Notes:

[1] In addenda, revisions or editions to the standard, the changes are not always scope changes. In many cases, the changes are a result of NRC or public comments or issues raised as standard is implemented on the existing requirements.

[2] Revision 1 to ANS 53.21 (External Hazards) became Parts 5-10 of the ASME/ANS RA-S standard which was endorsed in RG 1.200; consequently, as a separate, redundant standard, the staff did not endorse ANS 53.21.

[3] ASME and ANS combined the various hazards for a Level 1/LERF standard into a single standard – ASME/ANS RA-S.

[4] These standards are underdevelopment and in the consensus process.

[5] SDO has recognized the need for these standards, but has not started any initiative to develop.