

# Proposed - For Interim Use and Comment



## U.S. NUCLEAR REGULATORY COMMISSION **DESIGN-SPECIFIC REVIEW STANDARD FOR mPOWER™ iPWR DESIGN**

### **7.0 APPENDIX D INSTRUMENTATION AND CONTROLS - REFERENCES**

1. ANSI/ASME NQA-1-2008, "Quality Assurance Program Requirements for Nuclear Facilities."
2. ANSI/ASME NQA-1a-2009 Addenda, "Addenda to ANSI/ASME NQA-1-2008, Quality Assurance Program Requirements for Nuclear Facilities"
3. GL 85-06, "Quality Assurance Guidance for ATWS Equipment That Is Not Safety-related," April 16, 1986.
4. GL 91-04, "Guidance on Preparation of a Licensee Amendment Request for Changes in Surveillance Intervals to Accommodate a 24 Month Fuel Cycle," April 2, 1991.
5. IEEE Std. 1008, "IEEE Standard for Software Unit Testing."
6. IEEE Std. 1012, "IEEE Standard for Software Verification and Validation."
7. IEEE Std. 1028, "IEEE Standard for Software Reviews."
8. IEEE Std. 1042, "IEEE Standard for Software Reviews, IEEE Guide to Software Configuration Management."
9. IEEE Std. 279-1971, "Criteria for Protection Systems for Nuclear Power Generating Stations."
10. IEEE Std. 323, "IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations."
11. IEEE Std. 338, "Standard Criteria for the Periodic Surveillance Testing of Nuclear Power Generating Station Safety Systems."
12. IEEE Std. 379, "Standard Application of the Single Failure Criterion to Nuclear Power Generating Station Safety Systems,"
13. IEEE Std. 384, "IEEE Standard Criteria for Independence of Class 1E Equipment and Circuits."
14. IEEE Std. 497, "IEEE Standard Criteria for Accident Monitoring Instrumentation for Nuclear Power Generating Stations."

15. IEEE Std. 603-1991, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations," including the correction sheet, dated January 30, 1995
16. IEEE Std. 730, "IEEE Standard for Software Quality Assurance Plans."
17. IEEE Std. 7-4.3.2, "IEEE Standard Criteria for Digital Computers in Safety Systems of Nuclear Power Generating Stations."
18. IEEE Std. 828, "IEEE Standard for Software Configuration Management Plans."
19. IEEE Std. 829, "IEEE Standard for Software Test Documentation."
20. IEEE Std. 830, "IEEE Recommended Practice for Software Requirements Specifications."
21. ANSI/ISA-67.02.01, "Nuclear Safety-related Instrument Sensing Line Piping and Tubing Standards for Use in Nuclear Power Plants."
22. NUREG/CR-6082, "Data Communications," August 1993.
23. NUREG/CR-6303, "Method for Performing Diversity and Defense in Depth Analyses of Reactor Protection Systems," 1994.
24. NUREG-0700, "Human System Interface Design Review Guidelines," May 2002
25. NUREG-0711, "Human Factors Engineering Program Review Model."
26. NUREG-0737, "Clarification of TMI Action Plan Requirements," 1982.
27. NUREG-0737, Supplement 1, "Clarification of TMI Action Plan Requirements - Requirements for Emergency Response Capability," 1983.
28. NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," 2007.
29. NUREG-0933, "Resolution of Generic Safety Issues (Formerly entitled "A Prioritization of Generic Safety Issues")," December 2011.
30. RG 1.105, "Setpoints for Safety-related Instrumentation."
31. RG 1.118, "Periodic Testing of Electric Power and Protection Systems."
32. RG 1.151, "Instrument Sensing Lines."
33. RG 1.152, "Criteria for Digital Computers in Safety Systems of Nuclear Power Plants."
34. RG 1.168, "Verification, Validation, Reviews and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants."

35. RG 1.169, "Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants."
36. RG 1.170, "Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants."
37. RG 1.171, "Software Unit Testing for Digital Computer Software Used in Safety Systems of Nuclear Power Plants."
38. RG 1.172, "Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants."
39. RG 1.180, "Guidelines for Evaluating Electromagnetic and Radio Frequency Interference in Safety-related Instrumentation and Control Systems."
40. RG 1.189, "Fire Protection for Operating Nuclear Power Plants."
41. RG 1.204, "Guidelines for Lightning Protection of Nuclear Power Plants."
42. RG 1.209, "Guidelines for Environmental Qualification of Safety-Related Computer-Based Instrumentation and Control Systems in Nuclear Power Plants."
43. RG 1.22, "Periodic Testing of Protection System Actuation Functions."
44. RG 1.28, "Quality Assurance Program Requirements (Design and Construction)."
45. RG 1.47, "Bypassed and Inoperable Status Indication for Nuclear Power Plant Safety Systems."
46. RG 1.53, "Application of the Single Failure Criterion to Nuclear Power Plant Protection Systems."
47. RG 1.62, "Manual Initiation of Protection Action."
48. RG 1.75, "Criteria for Independence of Electrical Safety Systems."
49. RG 1.97, "Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants."
50. RIS 2006-17, "NRC Staff Position on the Requirements of 10 CFR 50.36, A Technical Specifications,' Regarding Limiting Safety System Settings During Periodic Testing and Calibration of Instrument Channels," August 24, 2006.
51. SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light Water Reactor (ALWR) Designs," April 2, 1993.
52. SRM SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light Water Reactor (ALWR) Designs," July 21, 1993.
53. SECY-94-084, "Policy and Technical Issues Associated with the Regulatory Treatment of Non-safety Systems in Passive Plant Designs," dated March 28, 1994 (ML003708068)

54. SECY-11-0024, "Use of Risk Insights to Enhance the Safety Focus of Small Modular Reactor Reviews," February 18, 2011
55. SRM-COMGBJ-10-0004/COMGEA-10-0001, "Use of Risk Insights to Enhance the Safety Focus of Small Modular Reactor Reviews," August 31, 2010