



Draft Regulatory Guide (DG)-1292 “Dedication of Commercial-Grade Items for Use in Nuclear Power Plants”

JUNE 23, 2016

PAUL PRESCOTT

OFFICE OF NEW REACTORS

DIVISION OF CONSTRUCTION INSPECTION & OPERATIONAL PROGRAMS

QUALITY ASSURANCE VENDOR INSPECTION BRANCH-3



OVERVIEW

- 10 CFR Part 21 Rulemaking Status
- Process for Developing Guidance
- Purpose of Draft Regulatory Guide (DG)-1292
- Regulatory Positions
- Status of Guidance Development



10 CFR Part 21 Rulemaking Status

- 2010-Audit (OIG-10-A-20) (ADAMS Accession No. ML102730627)
 - Challenges with Commercial-Grade Dedication (CGD)
 - Recommendations: Align Part 21 with current accepted guidance

- 2011-Audit (OIG-11-A-08) (ADAMS Accession No. ML110820426)
 - Rule is contradictory and unclear
 - Recommendation: Revise Part 21 for full conformity with Section 206 of the Energy Reorganization Act

- Final Rulemaking Basis (ADAMS Accession No. ML15152A461)
 - Issued in August 2015



10 CFR Part 21 Rulemaking Status

- Results of Project Aim (SECY 16-0009) (ADAMS Accession No. ML16028A189)
 - In April 2016, the Commission approved the staff's recommendation to 'shed' a number of Rulemaking activities, which included 10 CFR Part 21 Rulemaking
 - The staff will issue a Federal Register Notice to inform the public of the results

- Outcome: Focus on guidance development
 - Provisions of the Regulatory Basis from new §21.71: Information contained in appropriate sections of new Electric Power Research Institute (EPRI) guidance





PROCESS FOR DEVELOPING GUIDANCE

- The staff worked with stakeholders on the development of updated guidance for CGD.
- From April 2012 through May 2014, Technical Advisory Meetings were conducted.
- The EPRI Technical Report – 3002002982 “Plant Engineering: Guidance for the Acceptance of Commercial-Grade Items in Nuclear Safety-Related Applications: Revision 1 to EPRI NP-5652 and TR-102260,” was published in September 2014.



PURPOSE: UPDATE/CONSOLIDATE GUIDANCE

- DG-1292 consolidates the staff positions in alignment with industry guidance EPRI 3002002982.
- EPRI 3002002982 was developed to:
 - Supersede outdated industry guidance in EPRI NP-5652 (June 1988) and TR-102260 (March 1994)
 - Incorporate staff positions in Generic Letter (GL) 89-02 and GL 91-05
 - Incorporate staff guidance in Inspection Procedure (IP) 38703 and IP 43004
 - Incorporate NEI 14-05, “Guidelines for the Use of Accreditation in Lieu of Commercial-Grade Surveys for Procurement of Laboratory Calibration and Test Services”



PURPOSE: UPDATE/CONSOLIDATE GUIDANCE (cont.)

- EPRI 3002002982 updates the guidance to align with currently accepted dedication practices:
 - Provides guidance tailored to specific user need (supplier, utility, dedicating entity)
 - Guidance to determine when in dedication or Appendix B process
 - Guidance for the dedication of various commercial services
 - Moves away from “critical characteristics for acceptance and design”





DG-1292 REGULATORY POSITIONS

1. EPRI 3002002982, Section I.3 on maintaining seismic and environmental qualification refers to EPRI guidance documents:
 - NP-7874, “Seismic Technical Evaluation of Replacement Items for Nuclear Power Plants (STERI)”
 - TR-105849, “Plant Support Engineering: Generic Seismic Technical Evaluations of Replacement Items for Nuclear Power Plants, Item Specific Evaluations”
 - The NRC has not endorsed either document. The NRC does not find the use of the generic testing databases acceptable as a means for maintaining or providing seismic qualification of seismically sensitive replacement components without an adequate technical evaluation.



DG-1292 REGULATORY POSITIONS (cont.)

2. EPRI 3002002982, Section 14.1 on digital equipment and computer programs integral to plant systems, structures and components (SSCs) list 6 EPRI documents for accepting digital devices.
 - Two have been found acceptable:
 - TR-106439, “Guideline on Evaluation and Acceptance of Commercial-Grade Digital Equipment for Nuclear Safety Applications” (ADAMS Accession No. ML12205A284)
 - TR-107330, “Generic Requirements Specification for Qualifying a Commercially Available PLC [Programmable Logic Controller] for Safety-Related Applications in Nuclear Power Plants” (ADAMS Accession No. ML12205A265)



DG-1292 REGULATORY POSITIONS (cont.)

- The remaining four guidance documents:
 - EPRI 1025283, “Commercial-Grade Digital Equipment for High-Integrity Applications: Oversight and Review of Evaluation and Acceptance Activities”
 - EPRI TR 107339, “Evaluating Commercial Digital Equipment for High-Integrity Applications: A Supplement to EPRI Report TR-106439”
 - EPRI 1011710, “Handbook for Evaluating Critical Digital Equipment and Systems”
 - EPRI TR-103291, “Handbook for Verification and Validation of Digital Systems”

Have not been approved by the NRC as an acceptable approach for meeting NRC requirements.



STATUS OF DG-1292

- Issuance of DG-1292 is expected in Fall 2016.
- Currently in process of going to the Office of General Counsel for concurrence.
- The next step is for the Office of Nuclear Regulatory Research to review and issue DG-1292 in the Federal Register Notice for public comment.





QUESTIONS

