APPENDIX B: CHAPTER 21 REFERENCE LISTING

The most recent document revision (including revised document numbering and/or titles) applies unless otherwise stated. (Requirement 21-0108) *Most national standards are available to LANL personnel via links; others must purchase.*

Non-LANL (Publicly Available)

10 CFR 830, *Nuclear Safety Management*

10 CFR 835, *Occupational Radiation Protection*

48 CFR 970-5223-1, *Integration of Environment, Safety, and Health into Work Planning and Execution*

ANSI/ANS-10.7, *Non-Real-Time, High-Integrity Software for the Nuclear Industry – Development Requirements*

ASME NQA-1-2008/NQA-1A-2009, *Quality Assurance Requirements for Nuclear Facility Applications*, Part I and Part II

ASME NQA-1-2015 Part III, Subpart 3.2-2.14, *Quality Assurance Requirements for Commercial Grade Items and Services, Commercial Grade Computer Programs, and Software Services*

ASQ *Certified Software Quality Engineer Handbook*, L. Westfall, Am. Soc of Quality Pres.

DOE G 413.3-21, *Cost Estimating Guide*

DOE O 414.1E, *Quality Assurance*

DOE Safety Software Quality Assurance Central Registry

DOE G 414.1-4, *Safety Software Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance* (Revision A pending)

DOE G 450.4-1C, *Integrated Safety Management System Guide*

DOE P 450.4A, *Integrated Safety Management Policy*

DOE SQAS21.01.00-1999, *Software Risk Management–A Practical Guide*

DOE-STD-1073, *Configuration Management*

DOE-STD-1195, *Design of Safety Significant Safety Instrumented Systems Used at DOE Nonreactor Nuclear Facilities*

EPA/100/K-09/003, *Guidance on the Development, Evaluation, and Application of Environmental Models*

IAEA TR. No. 397, *Quality Assurance for Software Important to Safety*, IAEA, 2000

IEEE

ANSI/IEEE Std 7-4.3.2-2010, *IEEE Standard Criteria for Digital Computers in Safety Systems of Nuclear Power Generating Stations*

ANSI/IEEE Std 828, *IEEE Standard for Configuration Management in Systems and Software Engineering*

ANSI/IEEE Std 26514, *Systems and Software Engineering—Requirements for Designers and Developers of User Documentation*

ANSI/IEEE Std 29148, *Systems and Software Engineering – Life Cycle Processes – Requirements Engineering*

IEEE Std 344, *Standard for Seismic Qualification of Equipment for Nuclear Power Generating Stations*

IEEE Std 830, *IEEE Recommended Practice for Software Specifications*

IEEE Std 1012, *IEEE Standard for System and Software Verification*

IEEE Std 1016, *IEEE Standard for Information Technology – System Design – Software Design Descriptions*

IEEE Std 1016.1, *IEEE Guide to Software Design Descriptions*

IEEE Std 1028, *IEEE Standard for Software Reviews and Audits*

IEEE Std 1666, IEEE *Standard for Standard System C Language Reference Manual*

IEEE Std 12207, *Systems and Software Engineering – Software Life Cycle Processes*

ISO/IEC/IEEE 24765, *Systems and Software Engineering – Vocabulary*

ISO/IEC/IEEE 29119, *Software and systems engineering—Software testing*

ISO/IEC/IEEE 29148, *Systems and Software Engineering-Life Cycle Processes-Requirements Engineering*

ANSI/ISA S84.00.01, *Functional Safety: Safety Instrumented Systems for the Process Industry Sector*

Merriam-Webster Dictionary

LANL (internal-only links except as noted)

AP-341-402, *Engineering Document Management in Operating Facilities*

AP-341-405, *Identification and Control of Technical Baseline, Variances, Alternate Methods, and Clarifications in Operating Facilities*

AP-341-502, *Management Level Determination*

AP-341-504, *Temporary Modification Control*

AP-341-510, *Field Walk-down, Data Gathering, and Inspections*

AP-341-519, *Design Revision Control*

AP-341-605, *Calculations*

AP-341-601, *Functions and Requirements Document*

AP-341-602, *Requirements and Criteria Document (RCD)*

AP-341-611, *System Design Descriptions*

AP-341-613, *Instrumentation Set Point Control*

AP-341-616, *Technical Baseline Change During Design*

AP-341-620, *Review of LANL Produced Design Documents*

AP-341-621, *Design Authority Technical Review*

AP-341-622, *LANL Review of Designs Produced by External Agencies*

AP-341-703, *Commercial Grade Dedication*

AP-341-801, *Post Modification/Post Maintenance Testing*

AP-341-802, *System Health Reporting*

AP-341-901, *Performing Vital Safety System Assessments*

AP-350-406, *Startup and Commissioning*

ASM 3400.00.0410, *Goods or Services Requiring Special Review/Approval*

ASM Website

Conduct of Operations Resources

CIO-P100, *Cybersecurity Program Plan*

SEO-COOP-006, *Continuity of Operations Plan*

ES Division Office (ES-Div) Website

ESDO-AP-002, *Engineering Services (ES) Software Inventory Instructions*

Form 2033, *Graded Software Inventory*

Forms for P1040, many of use herein

Information System Security Officer (ISSO)

Institutional Evaluated Supplier List (IESL)

Institutional Quality SQA webpage

IQPA-IQ-FSD-116, Software Quality Management Plan (SQMP) for LANL Less Than Commercially Controlled (LTCC) Software

LA-14167-MS, Los Alamos National Laboratory, *Concepts of Model Verification and Validation,* Thacker et al., 2004

LIST-SB-503, *Nuclear Facility List,* (e.g., r2.1 directly here, or under Other Resources)

P204-1, *Controlled Unclassified Information*

P218, *Cyber Security Controls*

P322-4, *Issues Management*

P328-5, *Assessments*

P330-2, *Control and Calibration of Measuring and Test Equipment (M&TE)*

P330-5, *Special Processes*

P330-6, *Nonconformance Control and Reporting*

P330-8, *Inspection and Test*

P330-9, *Suspect/Counterfeit Items (S/CI)*

P341, *Facility Engineering Processes Manual*

P342, *Engineering Standards*

P343, *Facility Engineering Training and Qualification Manual*

P781-1, *Conduct of Training*

P805, *Export Control*

P841-1, *Quality Procurements*

P1020-2, *Laboratory Document Control*

P1040, *Software Quality Management*

P1011, *Information Technology Acquisition and Use*

PD110, *Safety Basis*

PD115, *LANL Readiness Program*

PD210, *Cyber Security Program*

PD330, *LANL Quality Assurance Program Description*

PD340, *Conduct of Engineering and Configuration Management for Facility Work*

PD370, *Conduct of Engineering for Research and Development (R&D)*

Safety Basis Document List

SBP-15-351, *Design Basis or Safety Basis Change Review*

SBP111-1, *Facility Hazard Categorization and Documentation*

SBP112-3, *Unreviewed Safety Question (USQ) Process*

SBP113-3, *Unreviewed Safety Issue (USI) Process*

SD130, *Nuclear Criticality Safety Program*

Software Quality Assurance webpage (IQPA-IQP)

STD-342-100, *Engineering Standards Manual* (available externally)

TeamForge