Enclosure B

Information Needed to Support a Digital I&C Upgrade License Amendment Request

In this enclosure, the list of documents identified for submittal does not differentiate the LAR Tiers. During Phase 0, the applicant should identify the applicability of previously approved information (e.g., Topical Reports or LARs) and the changes from previously approved information. Changes that impact the basis for approval of a previous design should be formally described and justified in the "Reference design, change analysis". The NRC will identify changes that require additional information submittals or audits. The information identified in the tables for audit or inspection should be available for all projects regardless of the LAR Tier.

Editing Notes:

- [In the tables below, the text should be written in sentence case, not Title Case, since these are not document titles. To avoid masking more substantial changes, this case change is not marked.]

- [In the tables below, references to sections within DI&C-ISG-06 have been retained; however, these should be replaced eventually by references to sections in regulatory guidance and industry standards. Then, the text within the ISG can be significantly reduced or eliminated.]

			Submitted with LAR (Phase 1)
			Reference design, change analysis (D.8.2)
			Digital Platform Commercial Grade Dedication Plan (D.10.4.2.4.2)
			[already in the Phase 2 submittal list]
			Description of diversity credited within the safety system or backup system(s) (D.6.2)
			For credited backup systems, description of compliance to BTP-19 quality and design requirements (????)
			Description of components credited to have no potential for CCF and the plan for demonstrating no potential for CCF (D.6.2)
			D3 AOO and PA Coping Analysis, including identification of credited operator actions, and plans for HFE analysis and V&V (D.6.2)
			Inter-division communication description and ISG-04 compliance Analysis (D.7.2, , , D.10.4.2.6)
			Redundancy, and physical and electrical independence description and analysis for compliance to single failure criteria (D.9.4.2.6)
			Description and analysis to demonstrate no adverse interaction with other systems, including non-safety control systems and diverse backup systems (D.9.4.3.3)
			Description of features and methods for self-tests and manual Tests, automatic and manual Calibration, and repair, including description of planned changes to Technical Specification surveillance methods or intervals (D.9.4.2.7, D.9.4.2.10, D.9.4.3.5, , D.10.4.2.7)
			System functional performance analysis (for design changes that would impact plant safety analysis) (D.9.4.2.5), (D.10.4.2.5).
			Description of information displays and controls to support credited manual actions (D.9.4.2.8, , , , , D.9.4.2.14,., , ,)
			Description of information displays and controls to support operating and maintenance bypasses, including access controls (D.9.4.2.8, D.9.4.2.9, D.9.4.2.10, D.9.4.3.6, D.9.4.3.7)
			Method of identification for safety related equipment, software and documentation (D.9.4.2.11)
			Description of shared components for multiple units (D.9.4.2.13)
			Description of manual controls for system level actuation (D.9.4.3.2)
			Description of component level controls and interfaces (D.9.4.4)
			Description of features to ensure protective actions execute to completion and features for subsequent override or reset (D.9.4.2.2)
			Equipment Qualification Plans (Including EMI, Temperature, Humidity, and Seismic) (D.5.2)
			Software QA Plan (D.4.4.3)
			System Description (To block diagram level), including system interfaces (D.9, D.10)
			Hardware Architecture Description (D.1.2)
			Software Architecture Description, including demonstration of deterministic performance (D.3.2)
			Quality Assurance Program for system Hardware (D.2.2)
			[moved to audit and inspection sections]
			[moved to audit section]
			[covered by software test plan]

			[covered by other plans, which may identify distinctions for the vendor and licensee]
			[moved to audit section]
			Software Development Plan (D.4.4.2)
			Software Installation Plan (D.4.4.5)
			Software Integration Plan (D.4.4.4)
			Software Maintenance Plan (D.4.4.6)
			Software Management Plan (D.4.4.1)
			Software Operation Plan (D.4.4.8)
			Software Project Management Program, including project risk management plan and specific information required by generic software plans (D.10.4.2.3.6)
			[moved to audit section
			[moved to audit section]
			Software Safety Plan (D.4.4.9)
			Software Test Plan (D.4.4.12, D.10.4.2.3.1)
			Software Tool utilization description, including tool QA plan (D.10.4.2.3.2)
			Software Training Plan (D.4.4.7)
			Software V&V Plan (D.4.4.10, D.10.4.2.3.3, D.10.4.2.3.4)
			[moved to audit section]
			Software Configuration Management Plan (D.4.4.11, D.10.4.2.3.5)

			Submitted 12 months prior to requested approval or as agreed in Phase 0 (Phase 2)
			Digital Platform Commercial Grade Dedication Report (D.10.4.2.4.2)
			D3 HFE analysis and preliminary validation for credited operator actions (D.6.2)
			D3 demonstration of no potential for CCF for credited components (D.6.2)
			[moved to inspection section]
			[moved to inspection section]
			Detailed System Description (D.9.2)
			FMEA demonstrating compliance to single failure criteria, fail-safe criteria and no undetectable failures (D.4.4.19, D.9.4.2.5, D.9.4.3.5)
			Analysis to demonstrate compliance with segmentation criteria of ISG-04 (????)
			Detailed Logic Diagrams for safety functions (D.9.2)
			Reliability Analysis, to support PRA and periodic manual surveillance intervals (D.9.4.2.15, D.10.4.2.15)
			System response time analysis methodology (D.9.4.1.4)
			Setpoint analysis methodology (D.9.4.3.8)
			Technical Specification changes including justifications (e.g. credit for digital design features, reliability or self-test features) (D.11.2)
			[already above]
			[included in inspection section]
			Factory Acceptance Test Specification (D.9.2)
			[moved to inspection section]
			Qualification Test Specifications (D.5.2)
			Summary of digital platform EMI, Temp., Humidity, and Seismic Qualification Results (D.5.2)
			[moved to inspection]

			[moved to inspection]
			[moved to audit section]
			[moved to audit section]
			[moved to audit section
			[moved to audit section]
			[moved to audit section]

			Available for audit 12 months prior to requested approval or as agreed in Phase 0 (Phase 2)
			Platform Software Requirements and Design Specifications (D.4.4.13, D.4.4.15)
			Application Software Requirements and Design Specifications (D.4.4.13, D.4.4.15)
			Software Safety Analysis for System Design Phase (D.4.4.9.1)
			Requirement Traceability Matrix for System Design Phase (D.4.4.18)
			[moved to inspection section]
			Configuration Management Reports for System Design Phase, including interim configuration lists and tables and interim software build documents (D.4.2, D.4.4.17, D.10.4.2.3.5, D.4.4.16)
			Detailed System and Hardware Drawings
			Circuit Schematics
			[moved to inspection]
			Digital Platform Qualification Test Procedures and Reports (D.5.2)
			Software Project Risk Management Reports through System Design Phase (D.10.4.2.3.6)
			[included above]
			Individual V&V Problem Resolution Reports through System Design Phase
			[moved to inspection section]
			Software Tool QA Report (D.10.4.2.3.2)
			Software V&V Reports through System Design Phase (D.10.4.2.3.1, D.10.4.2.3.3, D.10.4.2.3.4)
			[included in configuration management report above]

			Available for Inspection After approval (Phase 3)
			Commercial grade dedication reports for miscellaneous equipment
			Qualification Test Procedures and Reports for Miscellaneous Equipment (D.5.2)
			Software Safety Analysis for Detailed Design and Testing Phase (D.4.4.9.1)
			Requirement Traceability Matrix for Detailed Design and Testing Phase (D.4.4.18)
			System response time analysis report (D.9.4.1.4)
			Setpoint analysis report (D.9.4.3.8)
			D3 HFE final validation for credited operator actions (D.6.2)
			Factory and Site Software Integration Procedures and Reports
			Software Test Procedures and Reports (D.10.4.2.4.1)
			Factory Acceptance Test Procedure and Report (D.9.2, D.9.4.2.5, D.10.4.2.5, D.10.4.2.4.1)
			Site Installation Procedure and Report (????)
			As-built configuration management report, including as-built configuration lists and tables, and software build documentation (D.4.2, D.4.4.17)
			As-built System and Hardware Drawings
			As-built circuit schematics
			Operation Manuals (D.4.4.20)
			Software Code Listings
			V&V Problem Resolution Reports through site installation testing