Attachment A Technical Baseline Drawing CM Categories (Guidance)

Rev	Date	Description	POC	RM
0	2/1/06	Initial issue.	Tobin Oruch, ENG-CE	Mitch Harris, ENG-DO
1	10/27/06	Authorizing IMP became 341, Conduct of Engineering vice 342, Engineering Standards; ESM now ISD 341-2.	Tobin Oruch, *CENG*	Kirk Christensen, *CENG*
2	6/19/07	Minor clarifications.	Tobin Oruch, *CENG*	Kirk Christensen, *CENG*
3	6/16/08	Aligned with PD 341.	Tobin Oruch, *CENG*	Kirk Christensen, *CENG*
4	5/21/09	Admin changes; was App. A.	Tobin Oruch, *CENG*	Gary Read, *CENG*
5	8/25/10	Aligned with AP-341-405	Tobin Oruch, *CENG*	Larry Goen, *CENG*

The table below provides a matrix of some types of technical documents and their suggested configuration management category for a typical, non-nuclear, low- or no-hazard facility. As noted elsewhere in Section Z10, the Design Authority shall make the determination of category for documents entered into the Master Document List.

This document can be modified to reflect requirements and used by a project to document and track the required technical documents. Once a project is turned over to operations, the technical documents are provided to necessary personnel to ensure that the most recent documentation is used for facility operations and design changes.

The CM categories are formally defined elsewhere in Section Z10 and further discussed in LANL P 341, Engineering Processes Manual and AP-341-405, Identification and Control of Technical Baseline in Operating Facilities. The definitions at time of writing:
Priority: A set of "upper tier" documents that are:

- Required to perform Technical Safety Requirements (TSRs) in hazard category 2 and 3 nuclear facilities and required to perform Operational Safety Requirements (OSRs) in high and moderate hazard nonnuclear facilities.
- The Priority Documents are updated after the fieldwork is complete and before release to Operations. The building Evacuation Route Diagrams required by emergency response personnel are Priority Drawings. The incorporation of the pending changes may be extended for 30 calendar days with documented approval of the system Design Authority Representative and concurrence of the Facility Operations Director. The pending changes to the Priority Documents are tracked in the facility Master Document List (MDL).

Support:

- The technical documents that are necessary for workers to perform maintenance of SSC safely such as lockouts and tag outs, venting, etc., necessary to maintain fire protection and contamination control integrity of buildings, and building floor plans.

- The Support Documents are updated within 60 calendar days after the fieldwork completion or upon receipt of the third implemented design change whichever comes earlier. The pending changes to the Support Documents are tracked in the facility Master Document List (MDL).

General:

- Technical documents that are not categorized as Priority or Support but provide engineering details necessary for procurement of replacement parts, modifications, maintenance, and operation of the facility SSCs.
- The General Documents are updated within 360 calendar days after the field work completion or upon receipt of the fifth implemented design change, whichever comes earlier. The pending changes to the General Documents are tracked in the facility Master Document List (MDL).

Typical Technical Baseline Documents	Suggested CM Category		
	Priority	Support	General
General			
Cat 2 and 3 nuclear facilities			
Technical Safety Requirements (TSRs) and Drawings needed to implement TSRs in	X		
Instrumentation Set point Calculations in Cat 2/3 and high/mod hazard fac	X		
Operational Safety Requirements and drawings needed to implement OSRs in High or Moderate hazard facilities	X		
Architectural			
Architectural Details			X
Architectural Plans and Elevations			X
Architectural Renderings & Models			X
Architectural Sections			X
Architectural Schedules & Index			X
Emergency Evacuation Diagram (map)	X		
Fencing & Site Security Drawings		X	
Floor Plan of Record		X	
Penetration Seals		X	
Radiological Zone Drawings		X	
Roof Plan of Record		X	
Civil			
Building Plan		X	
Ductbanks		X	
Erosion Control Drawings			X
Fencing/Parking/Laydown			X
Grading			X
Landscaping Drawing			X
Manholes			X
Profiles Drawings		X	
Roads/Railroads Drawings			X
Sanitary/Storm Sewers Drawings		X	
Settling Basins			X
Sheet Piling & Dewatering			X
Shoring Drawings			X
Site and Plot Plans			X
Survey Drawing		X	
Wells			X

Typical Technical Baseline Documents	Suggested CM Category		
	Priority	Support	General
Yard Utilities Drawings		X	
Electrical			
Area Classification Drawings		X	
Cable Schedule		X	
Cathodic Protection Drawings		X	
Communication Drawings		X	
Conduit Schedule		X	
Coordination Study Drawings		X	
Demolition & Removal Drawings			X
Electrical Equipment Sizing Drawings		X	
Grounding Drawings		X	
Heat Tracing Drawings		X	
Interconnection/Wiring Diagrams		X	
Lighting Drawings		X	
Emergency Light Location Drawings		X	
Overhead Pole Line Drawings			X
Panel Schedules		X	
Raceway Layout Drawings		X	
Riser Diagrams		X	
Schematic Diagrams		X	
Single Line Diagrams (support when required to comply with lockout and tag out requirements for worker safety)		X	
Other Single Line Diagrams		X	
Three Line Meter & Relay Diagrams		X	
Underground Utilities Ductbanks/Manholes		X	
Fire Protection			
Fire Alarm Connection Diagrams		X	
Fire Alarm Location Drawings		X	
Fire Alarm Logic Diagrams		X	
Fire Area Boundary Drawings		X	
Fire Detection Drawings		X	
Fire Protection Conduit/Block Diagrams		X	
Fire Protection Drawings		X	
Fire Suppression System Design		X	
Sprinkler Standpipe/Piping Layout		X	
Instrumentation & Controls			
Control Panel Layout			X
Control Room Layout		X	
General & Miscellaneous			X
Input/Output Summary		X	
Instrument Diagrams		X	
Instrument Data Sheets		X	
Instrument Index		X	
Instrument Installation Detail			X
Instrument Location Drawing			X
Instrument Rack Drawing			X
Level Setting Diagram		X	
Logic Diagram		X	
Loop Diagram		X	
Setpoint Index		X	
System Block Diagram			X
System Process Graphics Layout		X	
Mechanical/Process			
Dimensional Record Drawings			X
Equipment Details		X	

Typical Technical Baseline Documents	Suggested CM Category		
	Priority	Support	General
Equipment Requirements Drawing (Vendor)		X	
Process Flow Diagrams		X	
General & Miscellaneous			X
Piping & Instrumentation Diagrams (P&ID) (required for lockout, tag out, and venting requirements for worker safety)		X	
Other P&IDs		X	
Piping Details		X	
Piping Flexibility			X
Process Flow Sheets		X	
Plant Design			
3D Model		X	
Area Piping Drawings		X	
Combination Arrangements		X	
Equipment & Duct Work Arrangement		X	
Equipment Locations		X	
Floor Drain Drawings			X
General & Miscellaneous			X
General Arrangements		X	
HVAC Layout Drawings		X	
Layout Drawings		X	
Machine Design Drawings			X
Piping Isometrics		X	
Piping & Equipment Details		X	
Plumbing Drawings			X
Process Piping Drawings		X	
Roof Drain Drawings			X
Sewer Drain Drawings			X
Weld Details			X
Structural			
Equipment Supports Drawings			X
Fabrication Details			X
Foundation Drawings		X	
HVAC Supports Drawing			X
Instrumentation Supports Drawings			X
Miscellaneous Steel Grating, Handrails, Plate Drawings			X
Miscellaneous Steel, Plans, Sections, Details		X	
Pipe Supports/Pipe Racks Drawings			X
Structural Concrete Plans		X	
Structural Concrete Sections & Details		X	
Structural Masonry		X	
Structural Steel Drawings		X	
Tray and Conduit Supports Drawings			X