

**South Texas Project Units 3 & 4 (STP 3&4) COLA Departures from ABWR Certified Design:
Current Plan for Incorporation into Toshiba ABWR Design Certification Renewal and Amendment**

ABWR Design Control Document	STP 3&4 COLA Revision 3 Departure	Summary of Key STP COLA Revision 3 Changes Compared to ABWR Certified Design	Incorporated in DCDRA?
Certified Design (Tier 1)	DEP T1 2.1-2 Reactor Pressure Vessel System RIP Motor Casing Cladding	Added cladding to the RIP motor casing in the stretch-tube portion above the RIP secondary seal and at the bottom end of the casing near the closure of the motor cover.	Yes
Certified Design (Tier 1)	DEP T1 2.2-1 Control Systems Changes to Inputs, Tests, and Hardware	Provided dual-redundant controller channels such that both channels remain operational during test.	Yes
Certified Design (Tier 1)	DEP T1 2.3-1 Deletion of MSIV Closure and Scram on High Radiation	Eliminated MSIV automatic closure trip on high radiation in steam tunnel.	Yes
Certified Design (Tier 1)	DEP T1 2.4-1 Residual Heat Removal System and Spent Fuel Pool Cooling	Changed from two to three RHR loops connected to the Fuel Pool Cooling and Cleanup System to permit additional cooling during refueling outages.	Yes
Certified Design (Tier 1)	DEP T1 2.4-2 Feedwater Line Break Mitigation	Added condensate pump trip by Class 1E breakers to mitigate FWLB in drywell.	Yes
Certified Design (Tier 1)	DEP T1 2.4-3 RCIC Turbine/Pump	Changed RCIC pump turbine from Terry type to integrated monoblock pump and turbine.	Yes
Certified Design (Tier 1)	DEP T1 2.12-1 Electrical Breaker/Fuse Coordination and Low Voltage Testing	Modified electrical breaker/fuse coordination and low voltage testing in conformance with industry standards and codes.	Yes
Certified Design (Tier 1)	DEP T1 2.12-2 I&C Power Divisions	Changed Class 1E I&C power distribution system from three to four safety related divisions.	Yes

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Certified Design (Tier 1)	DEP T1 2.14-1 Hydrogen Recombiner Requirements Elimination	Eliminated hydrogen recombiners flammability control system; downgraded hydrogen and oxygen analyzers to non-safety related.	Yes
Certified Design (Tier 1)	DEP T1 2.15-1 Re-classification of Radwaste Building Substructure from Seismic Category I to Non-Seismic	Re-classified Radwaste Building substructure from Seismic Category I to non-seismic.	Yes
Certified Design (Tier 1)	DEP T1 2.15-2 RBSRDG HVAC	Increased Diesel Generator (DG) engine room maximum temperature limit during DG operation from 50 °C to 60 °C because designing for less than a 5°C increase (above 46.1°C) requires significant changes in the DCD-approved cooling water systems, buildings and/or power requirements for an expanded DG room cooling system.	Yes
Certified Design (Tier 1)	DEP T1 3.4-1 Safety-Related I&C Architecture	Eliminated obsolete data communication technology and unnecessary inadvertent actuation prevention logic and equipment; clarified digital controls nomenclature and systems; changed platform implementation architecture; changed SSLC testing and surveillance.	Yes

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Certified Design (Tier 1)	DEP T1 5.0-1 Site Parameters	Increased design basis flood level to account for main cooling reservoir failure. Changed STP site minimum shear wave velocity. Increased maximum precipitation rate for rainfall. Increased humidity as measured from wet bulb temperature.	Flooding and shear wave changes not included (site specific). Precipitation and humidity changes included.
Tier 2*	DEP 1.8-1 Tier 2* Codes, Standards, and Regulatory Guide Edition Changes	Updated specific codes, standards and mil specs.	Yes
Also: Applicable STP 3&4 COLA Tier 2 departures are being incorporated. Examples are listed below.			
Tier 2 Chapter 6 Engineered Safety Features	DEP 6.2-2 Containment Analysis	Updated the containment analysis.	Yes
Tier 2 Chapter 3 Design of Structures, Components, Equipment and Systems	DEP 3B-2 Revised Pool Swell Analysis	Revised pool swell analysis using an alternate method available to Toshiba to address the effects of the changes to the containment pressure response for LOCA events as described in DEP 6.2-2.	Yes
Tier 2 Chapter 6 Engineered Safety Features	DEP 6C-1 Containment Debris Protection of ECCS Strainers	Changed strainer design per Reg. Guide 1.82, Revision 3.	Yes