

Victoria County Station (VCS) Combined

License Application (COLA) Overview

VCS COLA Description and Details

Summary

September 2010

Agenda

- ✓ Victoria County Station (VCS) Combined License Application (COLA) Overview
- ✓ VCS COLA Description and Details
- ✓ Summary

VCS COLA Overview

- ✓ VCS COLA submitted to NRC on September 2, 2008
- ✓ Two ESBWR Units
- ✓ VCS is a Subsequent COLA (S-COLA) referencing the North Anna 3 Reference COLA (R-COLA) and the GEH ESBWR Design Control Document (DCD), Revision 4

VCS COLA Overview

- ✓ Part 1: General and Administrative Information
- ✓ Part 2: Final Safety Analysis Report (FSAR)
- ✓ Part 3: Environmental Report (ER)
- ✓ Part 4: Technical Specifications (TS)
- ✓ Part 5: Emergency Plan (E-Plan)
- ✓ Part 6: LWA/Site Redress Plan (Not Used)
- ✓ Part 7: Departures Report
- ✓ Part 8: Safeguards and Security Plan (Separate Submittal)
- ✓ Part 9: Proprietary/Sensitive Unclassified Non-Safeguards Information (SUNSI)
- ✓ Part 10: Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)
- ✓ Part 11: Enclosures

VCS COLA Overview

✓ VCS S-COLA relationship to R-COLA

- High degree of standardization – adopting R-COLA to maximum extent possible
- Preserve standardization concept – minimize departures from DCD and exemptions
- Design Centered Working Group (DCWG) participation ensures alignment and coordination with ongoing NRC review of the R-COLA and ESBWR DCD

✓ Format and Structure consistent with R-COLA

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VCS COLA Overview

✓ VCS Standardization Assessment

- Assessment performed to identify degree of standardization with R-COLA
- Approximately 90% of VCS sections classified same as R-COLA

Victoria County Station, Units 1 and 2 ESBWR FSAR Standardization Assessment		
Number of FSAR Sections	Percent of FSAR Sections	Section Type
96	48	Match DCD
41	21	Standard (identical)
9	5	Standard with a limited amount of site-specific information
12	6	Standard with a moderate amount of site-specific information
40	20	Site-specific
198	100%	Total FSAR Sections

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VCS COLA Overview

✓ Standardization Assessment Matrix (excerpt)

Part Chapter Section	Title	Standardization Assessment			
		Match DCD	Standard	Standard With Site- Specific	Site- Specific
2.4	Hydrology				X
2.5	Geology, Seismology, and Geotechnical Engineering				X
FSAR Chapter 3	Design of Structures, Components, Equipment, Systems				
3.1	Conformance with NRC General Design Criteria	RCOLA		X(1)*	
3.2	Classification of Structures, Systems, and Components		X		
3.3	Wind and Tornado Loadings	X			
3.4	Water Level (Flood) Design	X			
3.5	Missile Protection		RCOLA	X(1)*	
3.6	Protection Against Dynamic Effects		X		
3.7	Seismic Design				X
3.8	Seismic Category I Structures	X			
3.9	Mechanical Systems and Components			X(1)(+)	
3.10	Seismic and Dynamic Qualification		X		

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VCS COLA Detailed Description

✓ Part 1 – General and Administrative

- Provides information regarding corporate identity and financial qualifications of applicant
- Applicant is Exelon Nuclear Texas Holdings, LLC, a subsidiary of Exelon Generation
- VCS is a merchant plant
- Proprietary financial projections for construction costs, operating and maintenance costs, income statement are contained in Part 9 of the VCS COLA

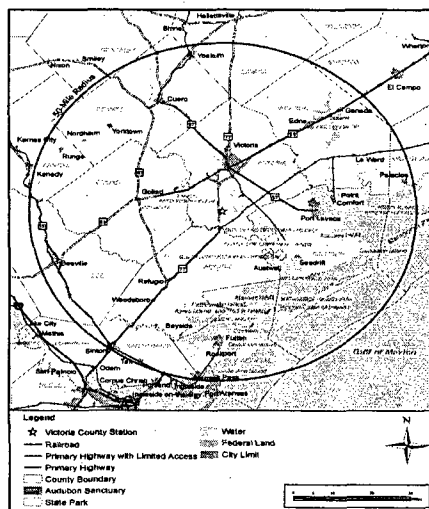
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VCS COLA Detailed Description

- ✓ Part 2 - FSAR
- ✓ Two Unit Plant
 - Shared systems are not safety related
 - Makeup Water, Raw Water Makeup, Potable Water, Sanitary Waste Discharge Systems
- ✓ Site Specific System Designs
 - Raw Water Makeup System
 - Cooling Basin
 - Cooling Basin Blowdown System
 - Control Room HVAC intake toxic gas detection capability

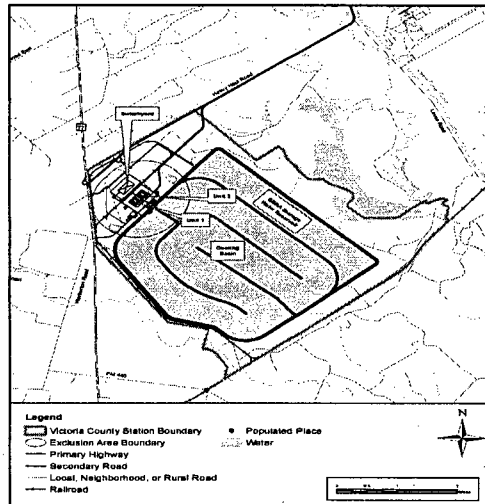
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VCS COLA Detailed Description

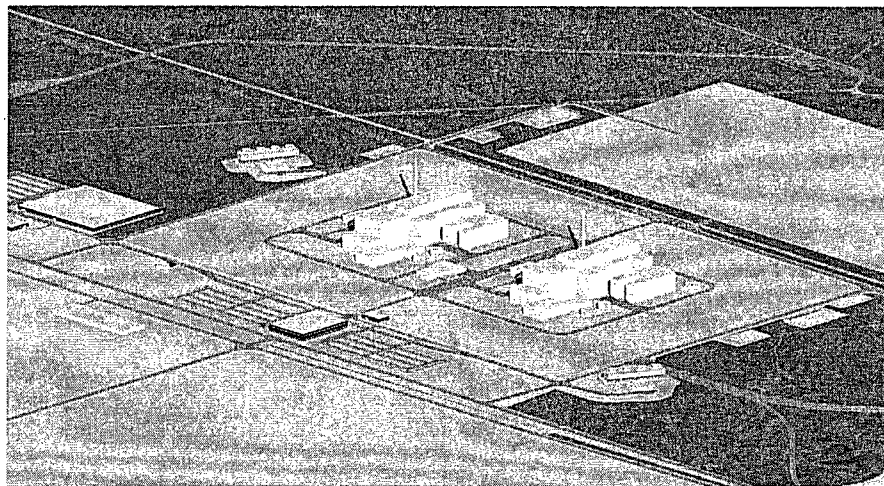


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VCS COLA Detailed Description



VCS COLA Detailed Description



VCS COLA Detailed Description

- ✓ Part 3 – Environmental Report
- ✓ ER format and content follow Environmental Standard Review Plan including 2007 revisions
 - Sections 4.7 and 5.11 – cumulative impacts of construction and operation
 - Section 5.7.2 – Transportation of Radiological Materials
 - Sections 4.4.1 and 5.8.1 – Non-radiological health and transportation impacts
 - Section 3.9 – Construction Activities
 - Section 3.10 – Workforce Characterization
- ✓ Supplemental information to be provided
 - Additional terrestrial ecology survey data – November 14, 2008
 - Additional aquatic ecology survey data – February 13, 2009
 - Second year of meteorological data and analysis
 - Additional ground water monitoring and analysis

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VCS COLA Detailed Description

- ✓ Part 4 – Technical Specifications
 - Generic ESBWR DCD Revision 4 Technical Specifications
 - Reflects two unit plant
 - TS 5.2.2 Non-licensed operators for two units
 - TS 5.6.1 and 5.6.2 Multi-unit site reporting options
 - Incorporates control room toxic gas detectors (TS 3.3.7.3)

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VCS COLA Detailed Description

✓ Part 5 – Emergency Plan

- Exelon Nuclear Standard Emergency Plan
- Victoria County Station Emergency Plan
- State of Texas – Fixed Nuclear Facility Response for Victoria County Station (Annex D, Tab 1, Chapter 3)
- Victoria County Emergency Plan
- Goliad County Emergency Plan
- Refugio County Emergency Plan
- State and County Certifications Letters
- Evacuation Time Estimate Study
- Alert Notification System Study

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VCS COLA Detailed Description

✓ Part 7 – Departures Report

- Toxic gas concentrations at main control room HVAC intakes
- Minimum shear wave velocity
- Makeup Water System shared by Units 1 and 2

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VCS COLA Detailed Description

✓ Part 8 – Security Plan

- Separate safeguards submittal letter dated September 2, 2008
- Utilizes guidance contained in NEI 03-12, "Template for Security Plan and Training and Qualification Plan," as updated for the ESBWR and site specific characteristics
- Also addresses NEI 03-01, "Industry Guideline for Nuclear Power Plant Access Authorization Programs," Revision 1, and NEI 03-09, "Security Officer Training Program"

VCS COLA Detailed Description

✓ Part 9 – Proprietary/SUNSI

- Only proprietary material is financial information from Part 1:
 - Projected construction costs
 - Projected operating and maintenance costs
 - Projected income statement

VCS COLA Detailed Description

✓ Part 10 - ITAAC

- Follows R-COLA with the following addition:
 - Toxic Gas Detection System

VCS COLA Detailed Description

✓ Part 11 - Enclosures

- MACTEC Geotechnical Data Reports for the power block and cooling basin

Summary

- ✓ High Degree of Standardization
- ✓ Minimal Differences from R-COLA
- ✓ Close Coordination with DCWG Preserves Standardization
- ✓ VCS COLA Update Plan
 - VCS COLA Revision 1 will synchronize with R-COLA Revision 1, and incorporate by reference ESBWR DCD Revision 5
 - VCS COLA Revision 1 submittal planned for early 2009 consistent with the near-term S-COLAs