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UniStar Pre-Application Review Meeting: Constellation COLA Development

Constellation Energy and the NRC

January 25, 2006



Objectives - Overview

Objectives:

- **Initiate UniStar COLA pre-application phase for a U.S. EPR at a Constellation site**
- **Present UniStar COLA development intentions and alignment with industry and NRC initiatives**
- **Review recent UniStar COLA development activities**
- **Reach mutual agreement with NRC on next steps**

Overview

Agenda

• 1:00 pm	Introductions and Remarks	NRC
• 1:10 pm	Overview	Joe Mihalcik
• 1:15 pm	UniStar Status	George Vanderheyden
• 1:35 pm	UniStar COLA Project Update	Mike Milbradt/ Frank Lopez
• 2:05 pm	Industry/NRC COLA initiatives	Joe Mihalcik
• 2:15 pm	Summary	Mike Milbradt
• 2:30 pm	Next steps	Mike Milbradt
• 2:45 pm	Opportunity for public comment	All
• 3:00 pm	Adjourn	

George Vanderheyden

**Constellation Energy, Senior Vice President – New Nuclear
Deployment**

UniStar, President

- **UniStar Nuclear – Business Model**
 - **U.S. EPR – proven technology**
 - **Standardized fleet**
 - **Fleet operations and efficiency**
- **Discussions ongoing for multiple projects / partners**
- **Exploratory site characterization activities**
- **“New” Constellation Energy**

UniStar COLA Development

Mike Milbradt

Constellation Energy Project Management

UniStar COLA Development

Frank Lopez

Bechtel Project Management

UniStar COLA Development

Recent UniStar COLA Activities

- **Established COLA division of responsibilities and initiated contracts with both Framatome ANP and Bechtel**
- **Kicked off the first UniStar COLA project and commenced development of the project plan and schedule**
- **Established “Site Layout” Team and performed several site walk-downs.**
- **Started integration activities with U.S. EPR Design Certification (DC) project**

UniStar COLA Development

Goals and Objectives:

- **High quality**
- **Standardization**
- **Early review and issue resolution**
- **Efficient use of resources (project and NRC)**
- **Achieve project milestones**

COLA Sections:

- **U.S. EPR technology**
- **Operational programs**
- **Site specific**

UniStar COLA Development Continued

Division of Responsibilities:

- **Constellation Energy**
 - **Licensee**
 - **Overall project manager**
 - **UniStar standardized operational programs**
- **Framatome ANP**
 - **U.S. EPR technology, safety analysis, core design**
 - **Design Certification integration**
- **Bechtel**
 - **Environmental and site specific**
 - **Schedule input**

UniStar COLA Development – Schedule

Schedule Philosophy:

- Early review and issue resolution
- Efficient use of resources
- Integration with DC project
- Standardized COLA to be used for future UniStar deployments
- Achievement of key UniStar COLA milestones
 - LWA-1, 2
 - Submittal of complete COLA

Create a shared expectation with the NRC for timely issuance of COL

Submittals based on same criteria/filter used for DC, with further consideration of “Benefits/Risks”:

- **Topics or COLA sections that can stand independently**
- **Topics that will require the most NRC review effort (longest lead time)**
- **Topics for which the information can be finalized early**
- **Subject areas to help optimize NRC resource utilization**
- **Topics with the greatest benefit and least risk resulting from earlier submittal and review**

Early review with finalization

Potential Schedule of Early Submittals: 2nd Quarter CY2007

2 nd Quarter CY2007 Submittals Supporting LWA-1	
Environmental Report	Site field investigations, e.g. borings, met data, environmental base lines
Site Redress Plan	Returning the site to pre-existing conditions relative to LWA-1 or LWA-2 planned activities

Preliminary—For Discussion Purposes

Potential Schedule of Early Submittals: 4th Quarter CY2007

4 th Quarter CY2007 Submittals Supporting LWA-2	
FSAR Chap.2 (All of Ch.2)	Site Characteristics
Portions of FSAR Chap. 3 *	Critical path is through site subsurface investigations and Nuclear Island structural design activities.

Preliminary—For Discussion Purposes

Potential Schedule of Early Submittals: Sections that will support timely review

CY2007 – CY2008		Other Mutually Beneficial Submittals	
General and Administrative Information		ESP-equivalent level of detail (prior to full COLA)	
QA Plans		In time to support field investigations	
Emergency Plan		High level of public interest	
Security Plan		High level of public interest	
Other Operational Programs		Generic to all technologies, if possible. Also any US EPR unique programs, if any.	

Preliminary—For Discussion Purposes

COLA Development Schedule Milestones:

- **Site characterization activities at Calvert Cliffs**
 - **Preliminary activities underway**
 - **Target date for starting core bores – 3/27/06**
- **Submit early COLA sections – 1/1/07- 6/1/08**
- **Submit complete Environmental Report – 6/1/07**
- **Submit complete COLA – 6/1/08**

COLA Schedule Management:

- **Detailed Primavera schedule**
- **Integrate and support NRC review schedule**

NRC and Industry Initiatives

Joe Mihalcik

Constellation Energy Licensing and Industry Initiatives

COLA Format and Content:

- New NRC guidance on COLA development
- Revisions to SRP
- NEI 04-01
- NPOC – Senior Level - Industry, NRC and NEI
 - Five initial objectives
 - Early review and issue resolution
 - Existing operating programs
 - Integrated planning, scheduling and information flow for DC/COLA and construction/inspection programs
 - New plant security

Constellation is moving forward with COLA development using current guidance and will modify as necessary based on new guidance

Summary

- **First UniStar COLA project underway. Project plan and schedule under development with emphasis on standardization**
- **Initial site characterization activities at Calvert Cliffs, one of several potential UniStar sites, in progress with start of core bores targeted for late March**
- **COLA development schedule includes early review and issue resolution**
- **Looking forward to working with NRC on implementing effective and efficient licensing process**

Next Steps

- QA Plan development – in progress
- Site characterization activities – 3/27/06
- Work together to define the use of LWA-1, 2 for future site activities
- Hold further discussions with NRC on proposed early review and issue resolution approach – 1/26/06 - 2/7/06
- Constellation to submit letter to NRC describing proposed early submittal sections and schedule – 2/10/06
- Concurrence from NRC for early submittal sections and schedule – early March

Key near term goal:

Publish Revision 0 of detailed integrated COLA/DC schedule, including NRC estimated review durations – 4/1/06