

January 27, 2003

ORGANIZATION: Westinghouse Electric Company

SUBJECT: SUMMARY OF MEETING HELD ON DECEMBER 16, 2002,  
REGARDING WESTINGHOUSE ELECTRIC COMPANY'S  
CONSTRUCTION SCHEDULING SOFTWARE

The Nuclear Regulatory Commission (NRC) staff met with Westinghouse Electric Company (Westinghouse) on December 16, 2002, at the NRC headquarters in Rockville, Maryland. The purpose of the meeting was to discuss Westinghouse's construction scheduling software. A list of attendees is provided as Enclosure 1. Westinghouse provided handouts during the meeting. These handouts can be accessed through the Agencywide Documents Access and Management System (ADAMS). This system provides text and image files of NRC's public documents. The handouts mentioned above may be accessed through the ADAMS system under Accession No. ML023510327. If you do not have access to ADAMS or if there are problems in accessing the handouts located in ADAMS, contact the NRC Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Prior to December 16, 2002, an earlier meeting was held with Westinghouse on August 20, 2002, at their facility in Monroeville, Pennsylvania. During this meeting Westinghouse provided a detailed proprietary discussion of their construction scheduling software to the construction inspection program team (see meeting summary dated October 2, 2002, ADAMS Accession No. ML022730026). The construction inspection team consists of NRC staff from headquarters as well as a representative from each region. The team requested that Westinghouse provide a non-proprietary version of its presentation for NRC management and interested members of the public. Westinghouse provided this non-proprietary discussion during the meeting on December 16, 2002.

During the December 16, 2002, meeting, Westinghouse discussed the program that it uses to schedule construction activities for the AP1000. Westinghouse has integrated the AP1000 construction schedule with the three dimensional AP1000 plant model. This integration allowed Westinghouse to provide a visual presentation of the proposed construction schedule for the AP1000 design to the participants at the meeting. Westinghouse referred to this as a 4D scheduling technique.

Westinghouse's AP1000 construction schedule is rapid when compared to the last generation of nuclear power plants constructed in the United States (U.S.). Westinghouse relies on the use of modular construction techniques to reduce the construction schedule. The proposed AP1000 schedule is 60 months from plant order to commercial operation. The schedule consists of the following time periods:

- 18 months of preconstruction activities (time period when plant modules and large components start to be fabricated off-site)

- 36 months of on-site construction activities (defined as the period from first structural concrete placement to fuel load)
- 6 months of startup testing

Westinghouse demonstrated to the participants at the meeting the 36-month on-site construction activities for the AP1000 nuclear island. Through the 4D construction scheduling technique the meeting participants were able to visualize the placement of large modules during this period and the rapid pace of construction.

The staff plans to consider the information that Westinghouse presented as it updates its construction inspection program. The staff is also meeting with several other vendors who have indicated that they also intend to use modular construction techniques for nuclear power plants to be constructed in the U.S.

*/RA/*

Joseph M. Sebrosky, Senior Project Manager  
New Reactor Licensing Project Office  
Office of Nuclear Reactor Regulation

Project No. 689

Enclosures: As stated

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ATTENDEES OF THE DECEMBER 16, 2002, MEETING  
TO DISCUSS WESTINGHOUSE'S CONSTRUCTION SCHEDULING SOFTWARE

<u>Attendee</u>	<u>Organization</u>
Ed Cummins	Westinghouse
James Winters	Westinghouse
Mike Corletti	Westinghouse
Charles Brinkman	Westinghouse
Jean-Luc Foret	Westinghouse/EDF
Bill Borchardt	NRR/ADIP
Bruce Boger	NRR/DIPM
Cynthia Carpenter	NRR/IIPB
Doug Coe	NRR/IIPB
James Isom	NRR/IIPB
Gerald Klingler	NRR/IIPB
Jim Lyons	NRR/NRLPO
Chuck Casto	NRC/Region II
Joseph Sebrosky	NRR/NRLPO
Jerry Wilson	NRR/NRLPO
Ronaldo Jenkins	NRR/NRLPO
Rich McIntyre	NRR/IEHB
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Matthew Mitchell	NRR/DE
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Herman Graves	RES/DET/ERAB
Patrick Castleman	NMSS/FCSS/SPIB
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