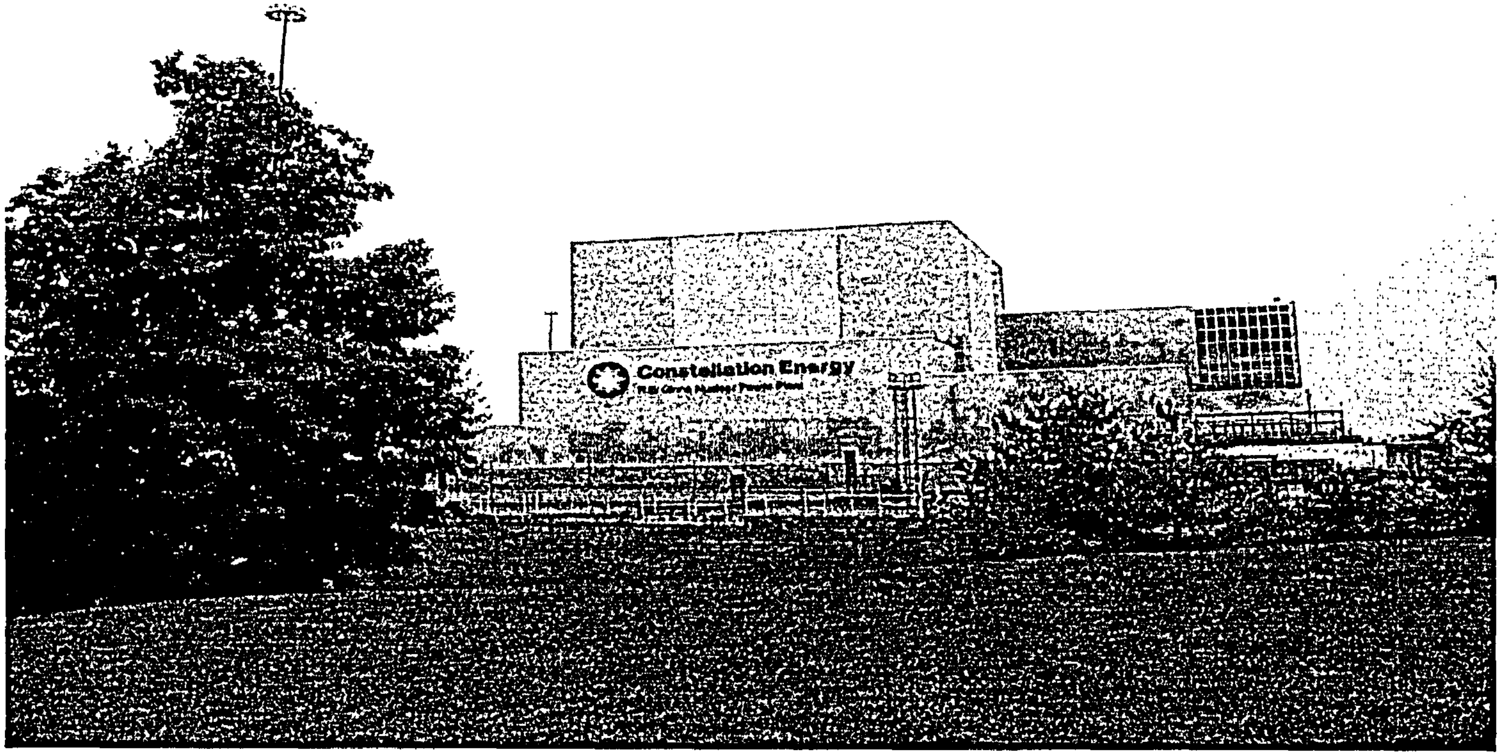

GINNA POWER UPRATE

NRC Meeting
April 6, 2005

Introduction

Goal is to continue close communication between the Ginna Uprate Project Team and NRC

- Introduction - Mark Finley
- PSA Approach - Rob Cavedo
- Pre-RS001 Submittal LARs - George Wrobel
- Fuel Assembly - Mark Finley
- Questions

Introduction - Schedule

Engineering Calculations and Reviews are 80% Complete - No Surprises to Date

RS-001 Submittal Planned for June 2005

Three LARs are Planned for April

PSA Results Nearing Completion

PSA Approach - Introduction

Key PRA Tasks for the Ginna Power Uprate

Robert Cavedo

PSA Approach - Current Ginna Model Overview

	Pre-Uprate	Uprate (Prelim.)
CDF:	6.4E-5/yr	7.0E-5/yr
LERF:	7.6E-6/yr	TBD

This includes internal events, fires, floods and shutdown events.

PSA Approach - Areas to Be Evaluated

Modification and Megawatt Changes can Impact:

Internal Events, External Events, Shutdown

- Initiating Events
- Human Action Timing
- Component/System Reliability
- System Level Success Criteria

PSA Approach - System Configuration Impacts

System and Design Review Packages Contain a PSA Screening Form

- Identifies margin reductions that could cause risk increases
- Provides a basis that there is no significant reduction in margin
- Significant changes will be incorporated into the PSA model

PSA Approach - T/H Evaluations

Human Action Timing and System Success Criteria will be Evaluated using PCTran and/or Design Calculations

PSA Approach - PCTran

PCTran has been used by the NRC as Early as 1986 and used as recently as Feb 2003

The Ginna version of PCTran has been benchmarked against MAAP runs and the UFSAR. PCTran Bleed-and-Feed cases have recently been reviewed by Westinghouse.

PSA Approach - Human Actions

Key Human Action Failure Rates will be Adjusted using the EPRI Human Action Methodology and the Revised Success Criteria

The remaining Human Actions will be Conservatively Adjusted using the Time-Reliability Correlation

(e.g. Hall 82 NUREG/CR-3010

or

Swain 85 NUREG/CR-1278)

PSA Approach - Beneficial Modifications

We will Evaluate the Post-Uprate Risk Profile and Consider Cost Beneficial Modifications to Reduce Risk

Ginna Uprate Project

Questions

LAR - Feedwater Isolation Valves

- Replace 80 second valve with 30 second valve
- Redundant to Feed Regulating Valve; safety-related; fail-safe
- SI signal meets single failure criteria
- Not required to operate in harsh EQ environment
- Action completion times changed from 24 to 72 hours per ITS

LAR - LOCA Related Changes

- BELOCA method change in TS 5.6.5.b
- ASTRUM method change in TS 5.6.5.b
- SBLOCA (NOTRUMP addendum) method change in TS 5.6.5.b
- Accumulator water volume and BAC - SR 3.5.1.2 and 3.5.1.4
- RWST BAC - SR 3.5.4.2

LAR - RAOC

- Heat flux hot channel factor
- Axial Flux Difference
- Quadrant Power Tilt Ratio (QPTR)
- RAOC method change in TS 5.6.5.b
- Limits in COLR
- Consistent with NUREG-1431, Rev.3

Questions

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Fuel - 14x14 422V+

Ginna will implement the Westinghouse 14x14 422V+ fuel assembly design for power uprate.

The first region will be inserted in the fall 2006 outage.

Assembly design is essentially the same as Point Beach and Kewaunee.

Fuel Assembly Comparison

The Ginna uprate fuel assembly is essentially the same as the Point Beach and Kewaunee assembly with the following exceptions:

Features/Design Types	14X14 422V+ GINNA (Uprate fuel assembly)	14X14 OFA GINNA (Existing)	14X14 422V+ POINT BEACH
Overall Assembly Height	Ref. + 0.2"	Ref. + 0.16"	Ref.
Type of Guide Thimble	Tube-In-Tube	Double Dashpot	Single Dashpot
Total Number of Grids	9	9	7
Mid Grid Design	Balanced Vane	Original Vane	Original Vane
Dimple Configuration	3T	2T	2T
Fuel Rod Length	Ref. + 0.2"	Ref. - 3.4"	Ref.

Fuel - Basis for Differences with Point Beach

The tube-in-tube RCCA thimble design, dimple configuration and balanced vane mixing grids represent improvements in the generic Westinghouse design that have already been implemented for the 17x17 RFA-2 fuel assembly (i.e., these changes build in more margin for fuel rod fretting wear and IRI).

Ginna will retain the current grid separation (9-grid design) in order to match the reinsert OFA fuel.

The overall assembly height and fuel rod length differences represent minor adjustments to the generic design to accommodate fission gas release.

Fuel - Westinghouse FCEP Process

Westinghouse has completed a successful evaluation under the approved Fuel Criterion Evaluation Process (WCAP-12488-A) for the generic fuel design.

As part of the application of the generic 14x14 422 V+ design for Ginna, minor enhancements are made and a supplemental FCEP notification is forth coming.

Ginna intends to implement the 14x14 422V+ assembly design under the 10CFR50.59 process.

Fuel - Basis for FCEP Determination

Full scale VIPER and FACTS flow loop testing have been completed for the generic design to verify expected pressure drop, vibration and wear. Additional testing for the Ginna 9-grid design is now in progress.

Small scale VISTA flow loop testing has been completed to demonstrate acceptable FIV and high frequency vibration.

Mid-grid impact strength and stiffness have been verified through dynamic testing.

Fuel - Basis for FCEP Determination (Cont.)

Thermal-hydraulic stability characteristics are unchanged.

Parameters remain within the WRB-1 database.

LOCA, Non-LOCA and all other safety analysis parameters are unaffected.

Fuel - Transition Core Effects

Transition core effects for reload 33 will be addressed through the cycle-specific reload process.

The methodology for the transition core analysis is based on NRC approved methodology:

DNB: WCAP-11837-P-A

LOCA: WCAP-16009-P-A

Seismic/LOCA/Grid Crush: WCAP-9500-A

Questions