

# Indian Point Units 2 & 3

## *NRC Power Uprate Meeting*

Rockville, Maryland

February 13, 2003



Enclosure 2

# Agenda

- Introduction and Overview
- IPEC Power Uprate Project Overview
- Addressing Industry Operating Experience
- Analysis Methodology
- License Application Request Development
- Open Discussion



# Introduction and Overview

- Introductions
- Meeting Objectives



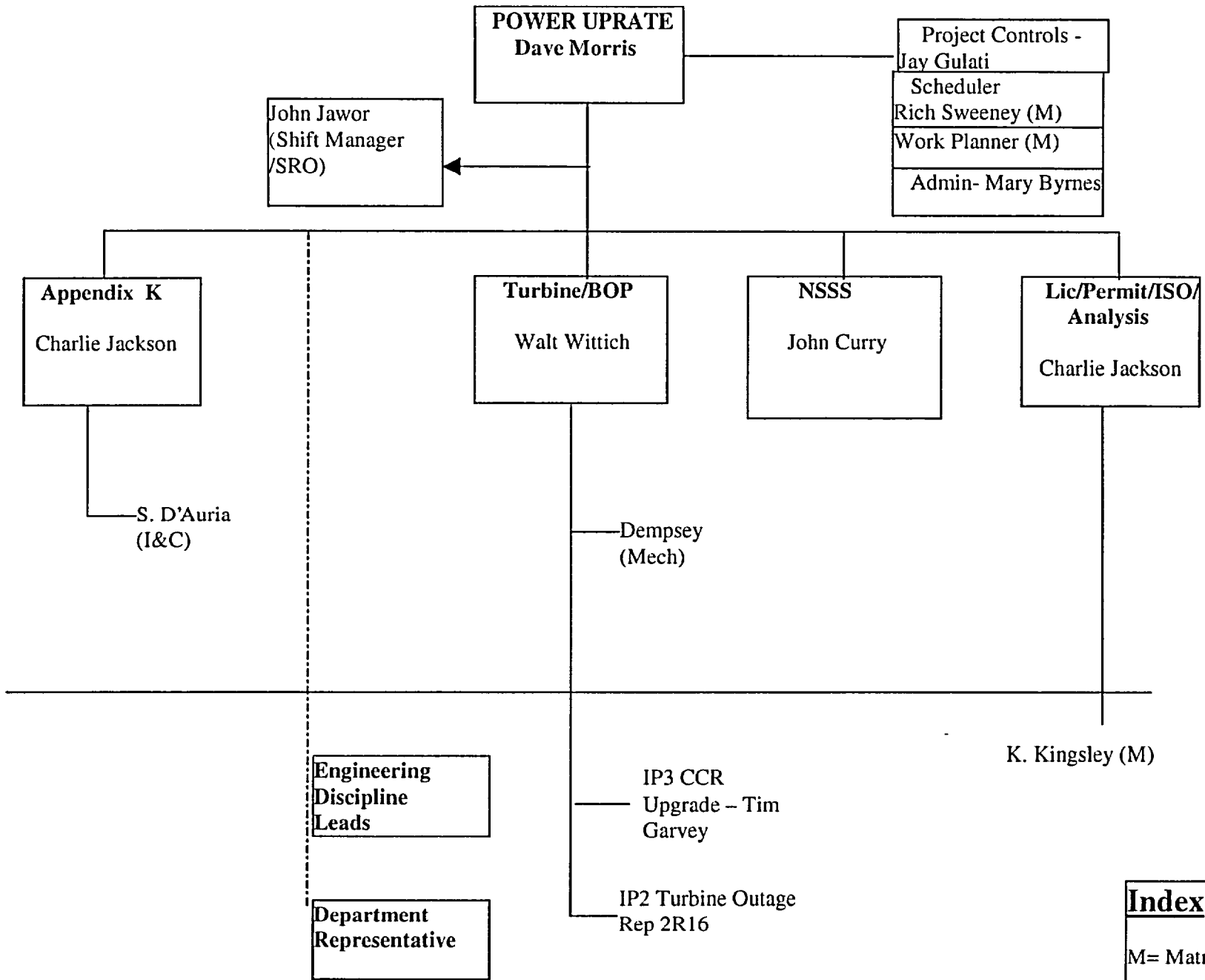
# Indian Point Power Uprate Project Overview

- Uprate Plans/History
- Power Uprate Organization
- Project Planning
- Scope
- Top Level Schedules



## *Power Uprate Plans/History*

- IP3 Appendix K 1.4% Uprate December 2002
  - 3025 to 3067 MWt Reactor Thermal Power
- IP2 Appendix K 1.4% Uprate 2 Quarter 2003
  - 3071.4 to 3114.4 MWt Reactor Thermal Power
- IP2 Stretch Uprate 3.3% Fall 2004
  - 3114.4 to 3216 MWt Reactor Thermal Power
- IP3 Stretch Uprate 4.7% Spring 2005
  - 3067 to 3216 MWt Reactor Thermal Power



# *Project Planning*

- Indian Point Project Implementation
- Entergy Fleet Schedule
- Indian Point Submittal Schedule
  - Indian Point 2 - 2/1/2004
  - Indian Point 3 - 6/7/2004



# *Scope*

## **IP2 Stretch**

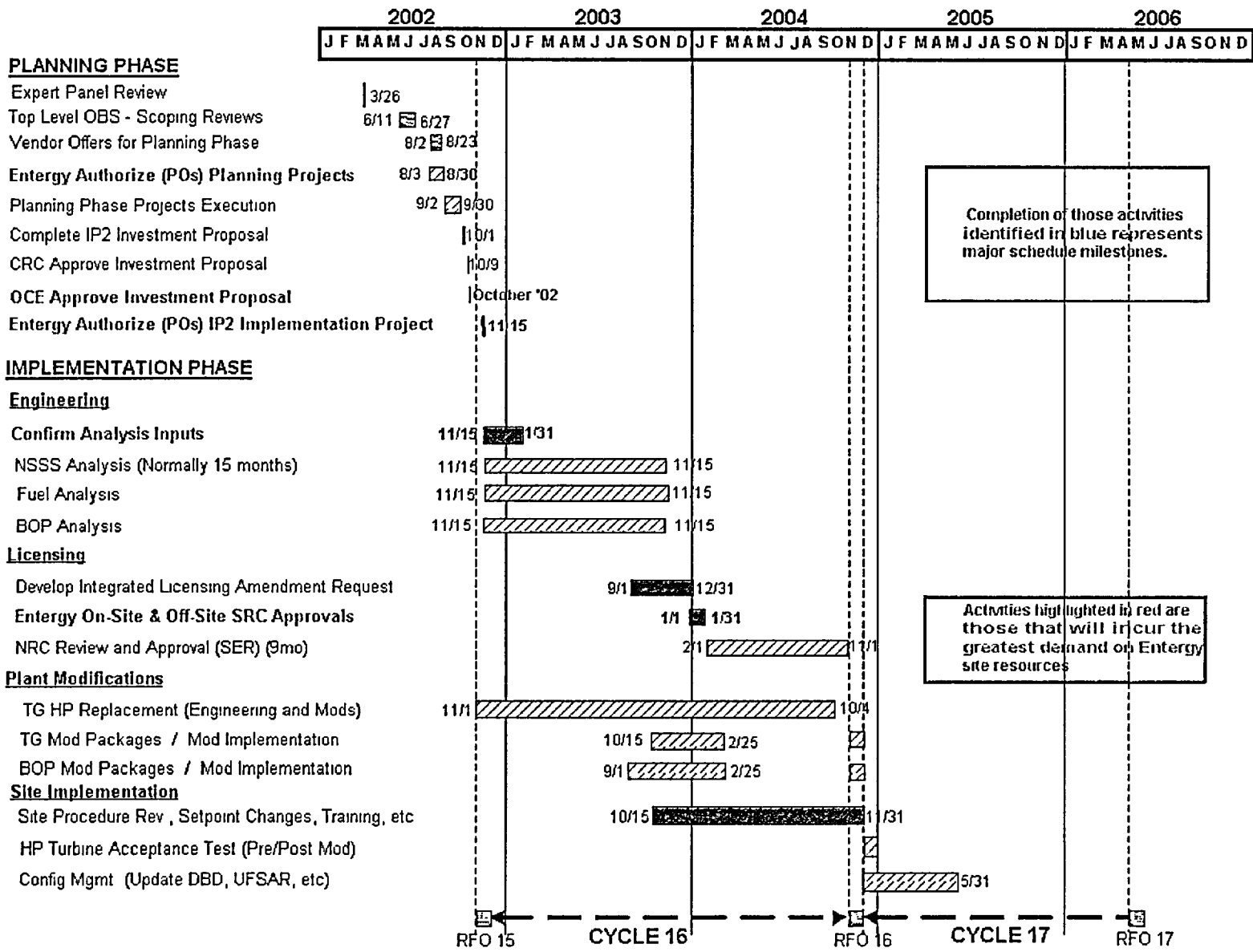
- New HPT Components
- MSR Internals
- Cooling Upgrades
  - Main Power Transformers
- Fuel Mechanical Design
- Increased Boron

## **IP3 Stretch**

- New HPT Components
- MSR Internals
- Cooling Upgrades
  - Main Power Transformers
- CCR Upgrades
- Fuel Mechanical Design



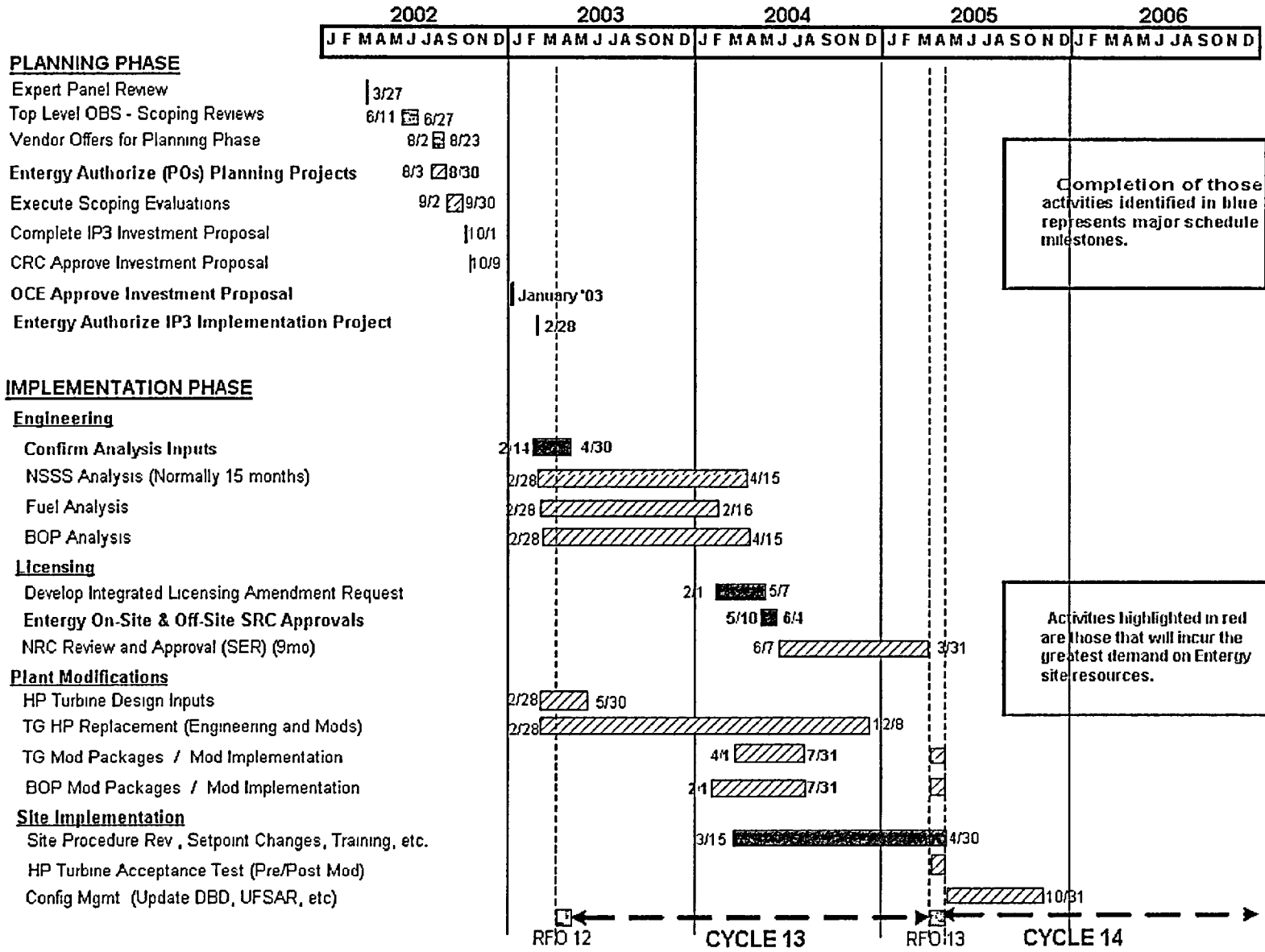
### IP2 - 3216 MWt Core Power Uprate Project Schedule



IP2-Uprate Top Level Schedule Forecast



### IP3 - 3216 MWT Core Power Uprate Project Schedule



Completion of those activities identified in blue represents major schedule milestones.

Activities highlighted in red are those that will incur the greatest demand on Entergy site resources.



# Addressing Industry Operating Experience

- INPO SER 5-02



# Analysis Methodology

## IP2

- BE SBLOCA
- Non LOCA Safety Analysis - RETRAN
- Improved Performance Analysis and Design Model – PAD 4.0
- MULTIFLEX 3.0

## IP3

- Non LOCA Safety Analysis - RETRAN
- Improved Performance Analysis and Design Model – PAD 4.0
- MULTIFLEX 3.0
- Alternate Source Term



# License Application Request (LAR) Development

- Lessons Learned – Past Submittals
- Requests For Additional Information (RAIs)
- NRC Power Uprate Web Page



# Nuclear Regulatory Commission Guidance

- Recent Extended Power Uprate Guidance Document (Review Standard)
- Applicability of Guidance on Stretch Uprates
- Insights?



# Entergy Fleet Power Uprate Perspective

Years indicate actual or expected MW online

Plant	YUOR	SPO	EDU
ANO-1 <sup>1</sup>			
ANO-2			2002
Grand Gulf <sup>3</sup>	2002		
Indian Point 2	2003	2004	
Indian Point 3	2002	2005	
Waterford 3	2002		2005
Vermont Yankee			2004
River Bend <sup>2</sup>	2003	2002	
J.A. FitzPatrick <sup>5</sup>		1995	
Pilgrim <sup>4</sup>	2003		

<sup>1</sup> ANO-1 is currently studying the possibility of unit uprate

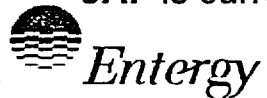
<sup>2</sup> RBS is currently studying the possibility of unit uprate

<sup>3</sup> GGNS is currently studying the possibility of unit uprate

<sup>4</sup> PNPS is currently studying the possibility of unit uprate

<sup>5</sup> JAF is currently studying the possibility of unit uprate

SHADING indicates project completed



# Open Discussion

