

LES National Enrichment Facility NRC Management Meeting

**Atlanta, Georgia
March 7, 2007**

Enclosure

Introduction

- President, CEO
Reinhard Hinterreither
- Chief Nuclear Officer and Vice President of Operations
John Swailes
- Vice President, Project Management
Gary Sanford
- Quality Assurance Director
Jim Gearhart
- Technical Services Director (Acting Design Manager)
Dave Sexton
- Design Manager (Transition)
Bob Schrauder
- Licensing Manager (Acting)
Jim Freels

AGENDA

PUBLIC SESSION

- Organizational Changes
- Organization – Historical Context
- Design Status and Challenges
- Construction Status and Challenges
 - Planned Corrective Actions for Identified Quality Assurance Construction Deficiencies

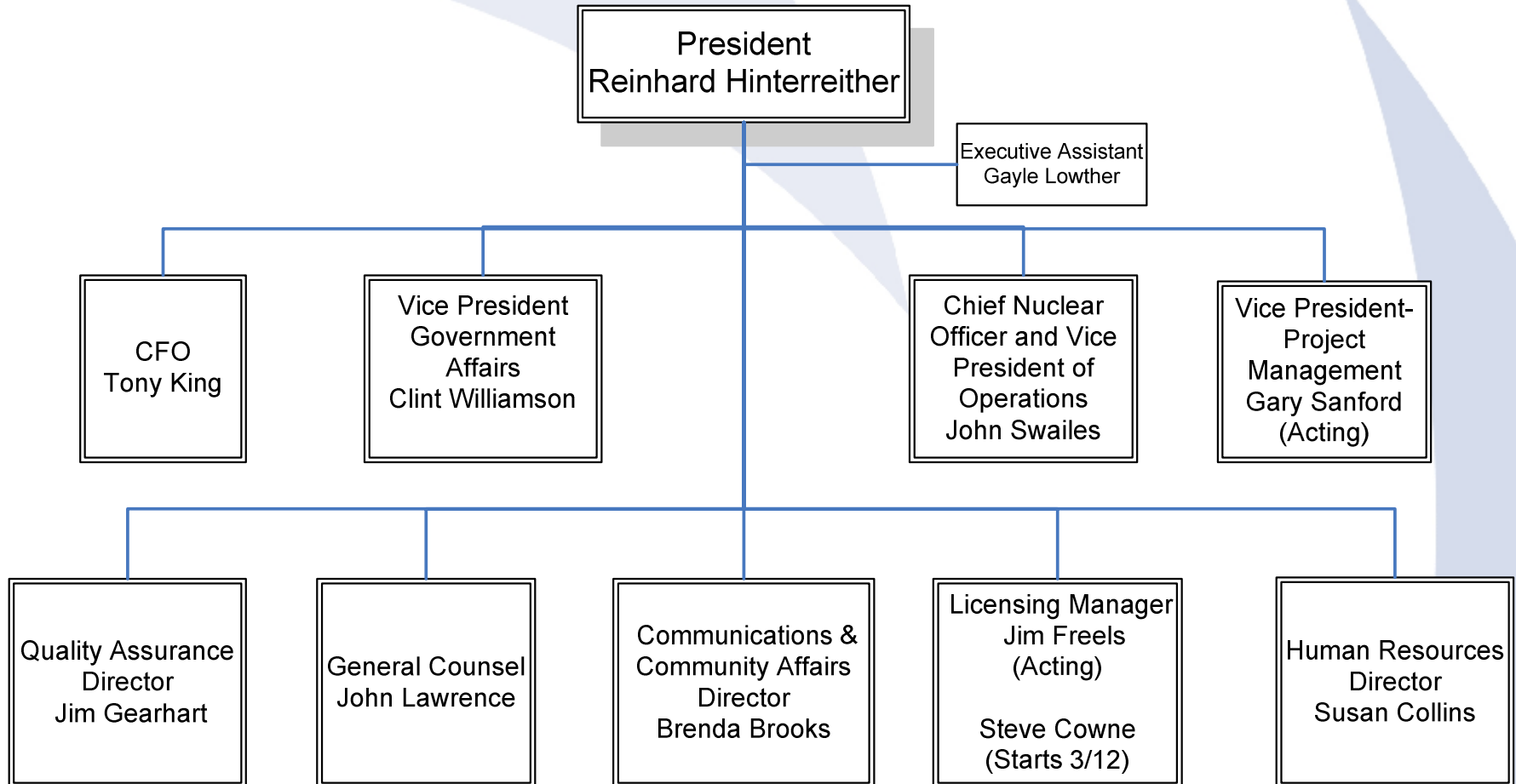
Reinhard Hinterreither
John Swailes
Dave Sexton
Gary Sanford
Jim Gearhart

CLOSED SESSION

- Construction Schedule

Gary Sanford

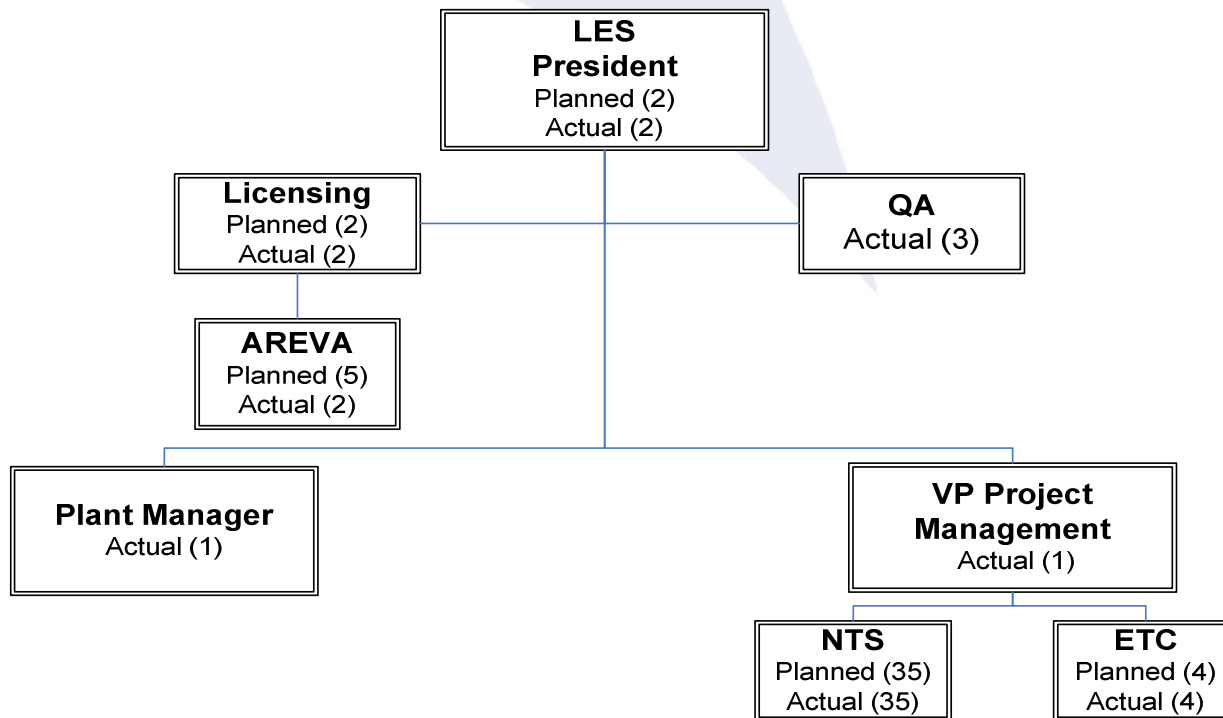
Organizational Changes



Organization – Historical Context

April 06

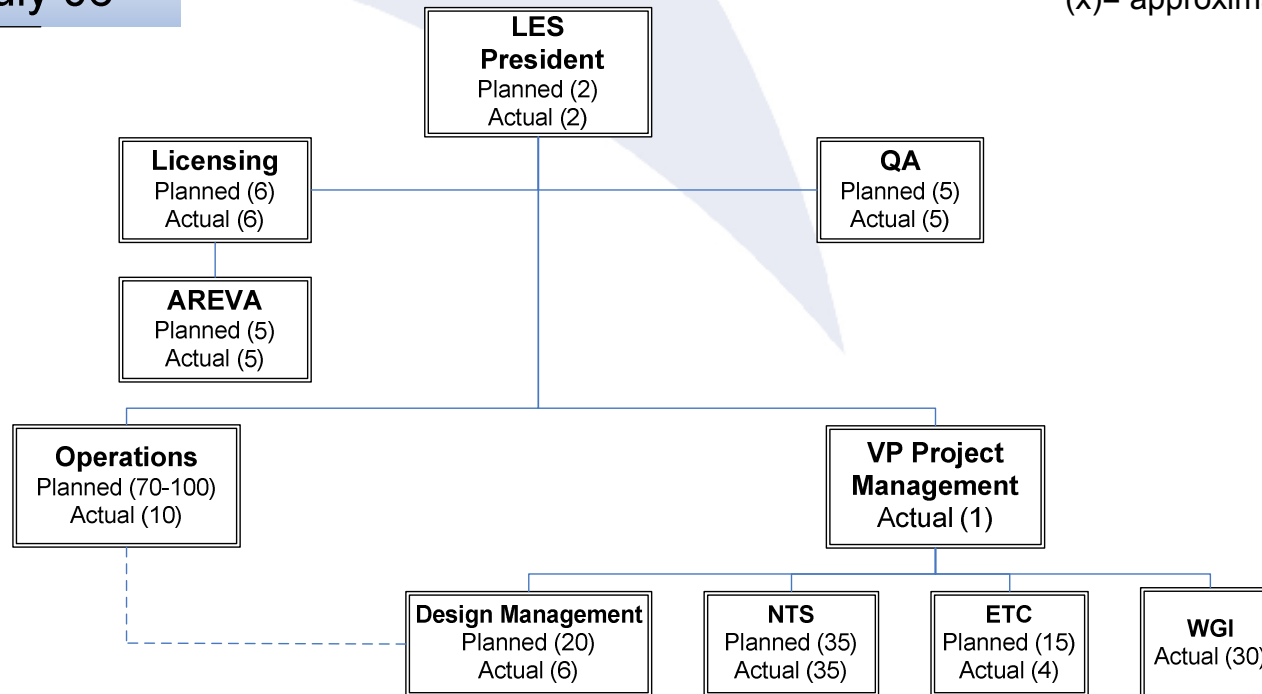
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Organization – Historical Context

July 06

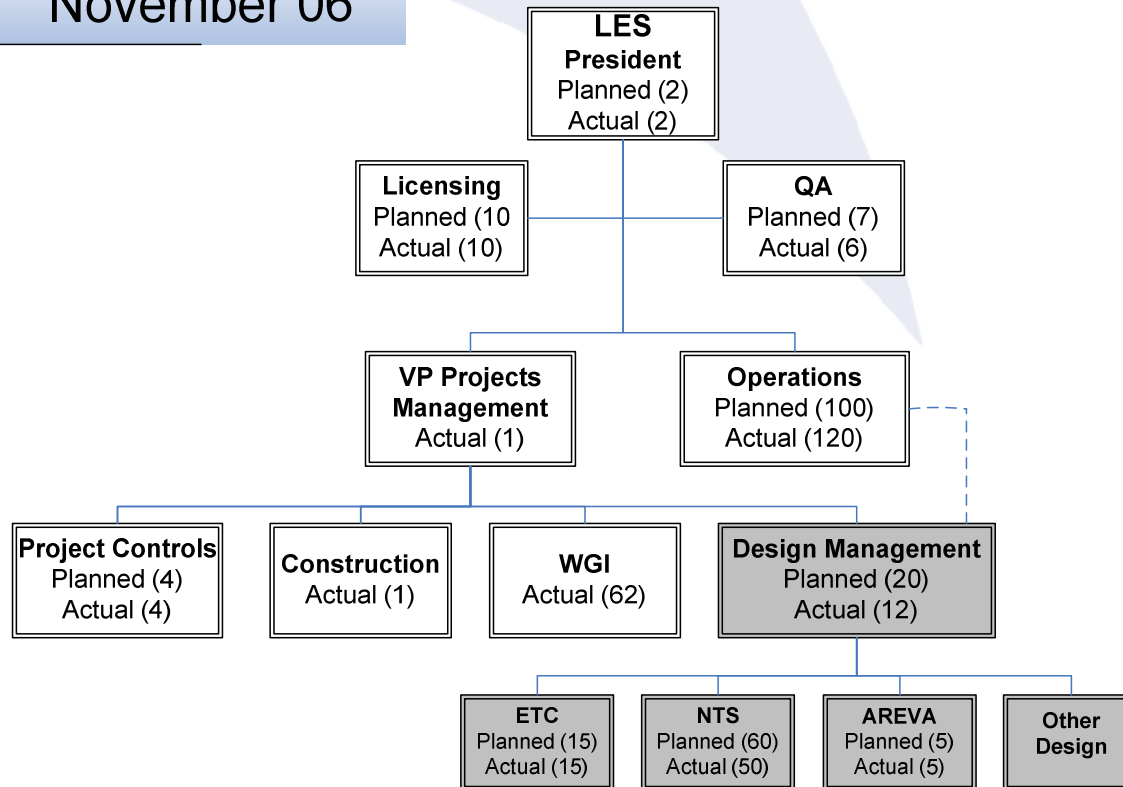
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Organization- Historical Context

November 06

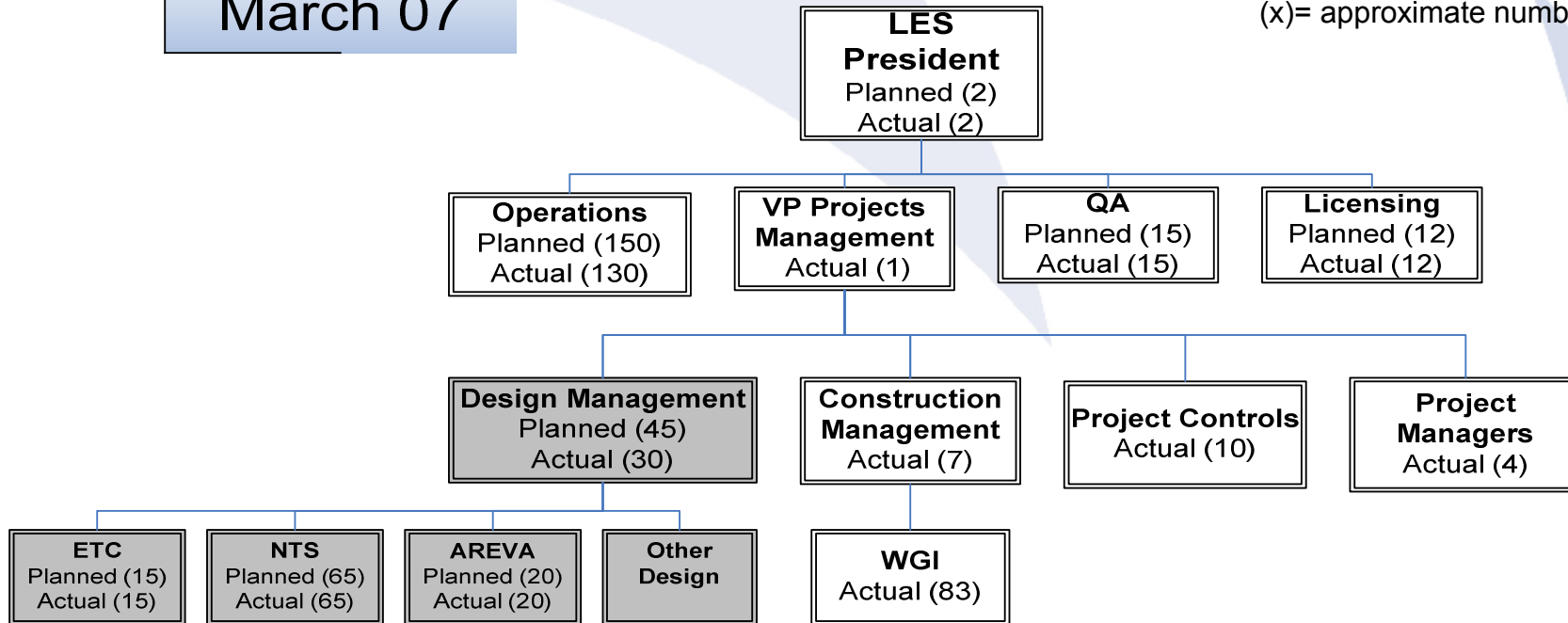
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Organization- Historical Context

March 07

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Design Management Organization (DMO)

From early July 2006 (post license) to now, significant improvements have been made (largely in the last 4 months):

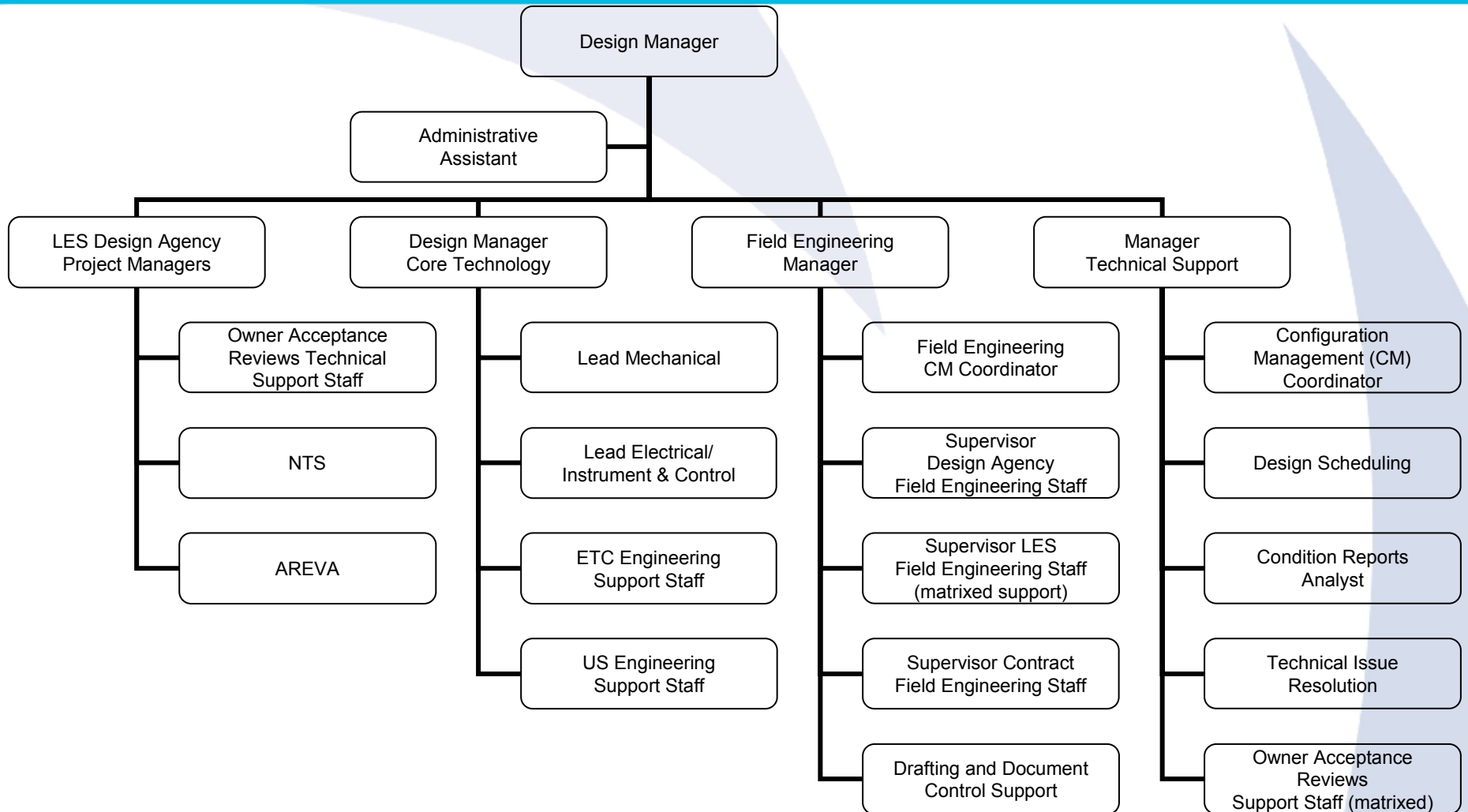
- Organizational Structure and Roles & Responsibilities established – being formalized in procedures
- DMO management & support staff increased by 600% - planned to increase an additional 50% (to approximately 45 personnel)
- Average years of experience in management team > 30
- 3 pre-licensing CM & 70.72 procedures expanded to ~10 and expanding to ~45 to establish full LES in-house design function
- DMO budget established
- DMO tasks established and linked into the integrated schedule (Owner Acceptance Reviews – OARs, 70.72 review, technical support)

DMO Structure

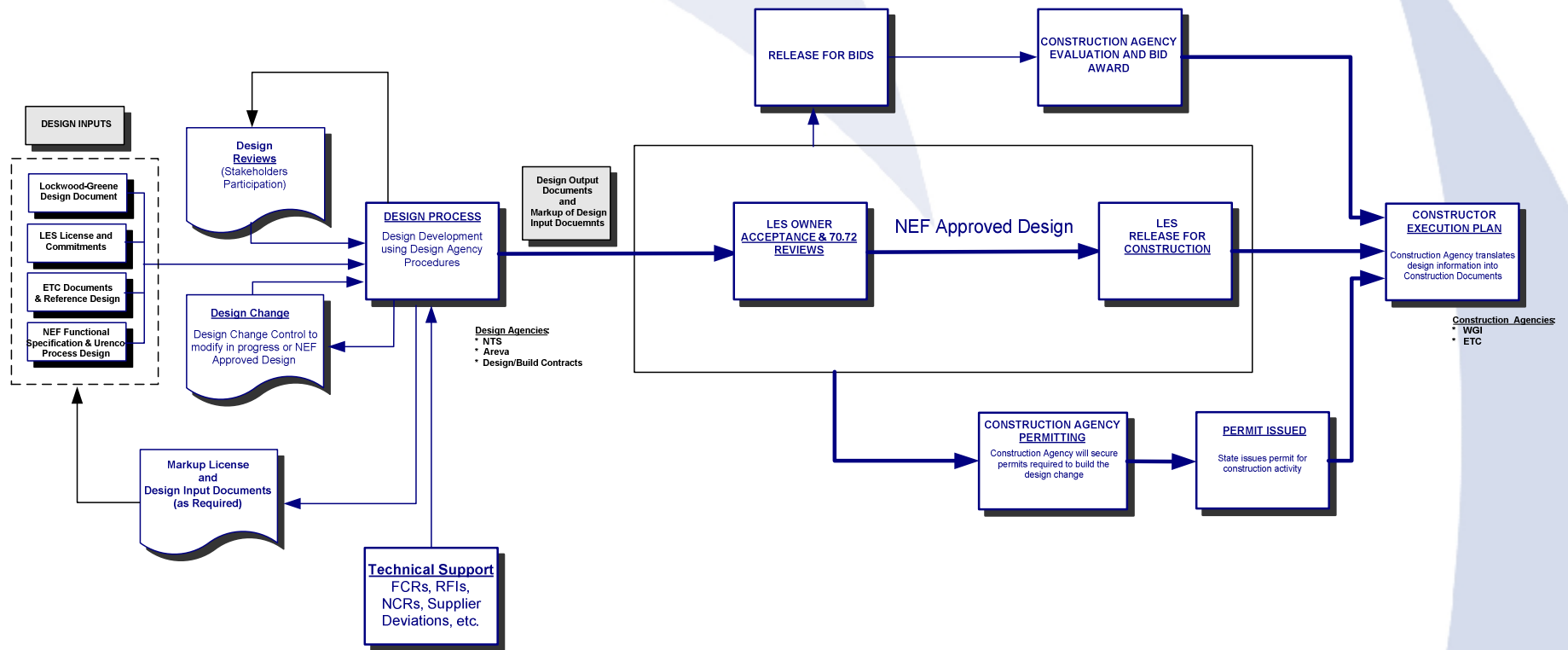
DMO Organization Consists of:

- LES Design Agency Project Managers
- Contracted Design Agencies (NTS & Areva)
- Design Manager Core Technology and Support Staff
- Field Engineering Manager
- Manager Technical Support
- Contracted Support from High Performing Consulting Agencies for Independent Assessments and Technical Support

Design Management Organization



Design Process



Design Status

Agency	Design Documents	Total Estimated Number	Issued	Release for Construction	OAR Reviews	Comments
ETC	Design Packages	32	21	None	None	NEF Reference Design
AREVA	Drawings, Specifications, Design Packages & Boundary Definitions	~250 (~75 IROFS BD Documents)	None	None	None	Americanization, IROFS Design, & IROFS Boundary Definitions
NTS	Drawings, Specifications, Calculations & IROFS Boundary Definitions	~1,750 (8 IROFS BD Documents)	~430	~100	Site works complete excluding code reconciliation	NEF Infrastructure
Design/Build Contracts	Drawings & Specifications	~15	~15	~15	Complete excluding code reconciliation	Contractor for substation design

Design – Major Challenge

Complete final detailed NEF Approved Design:

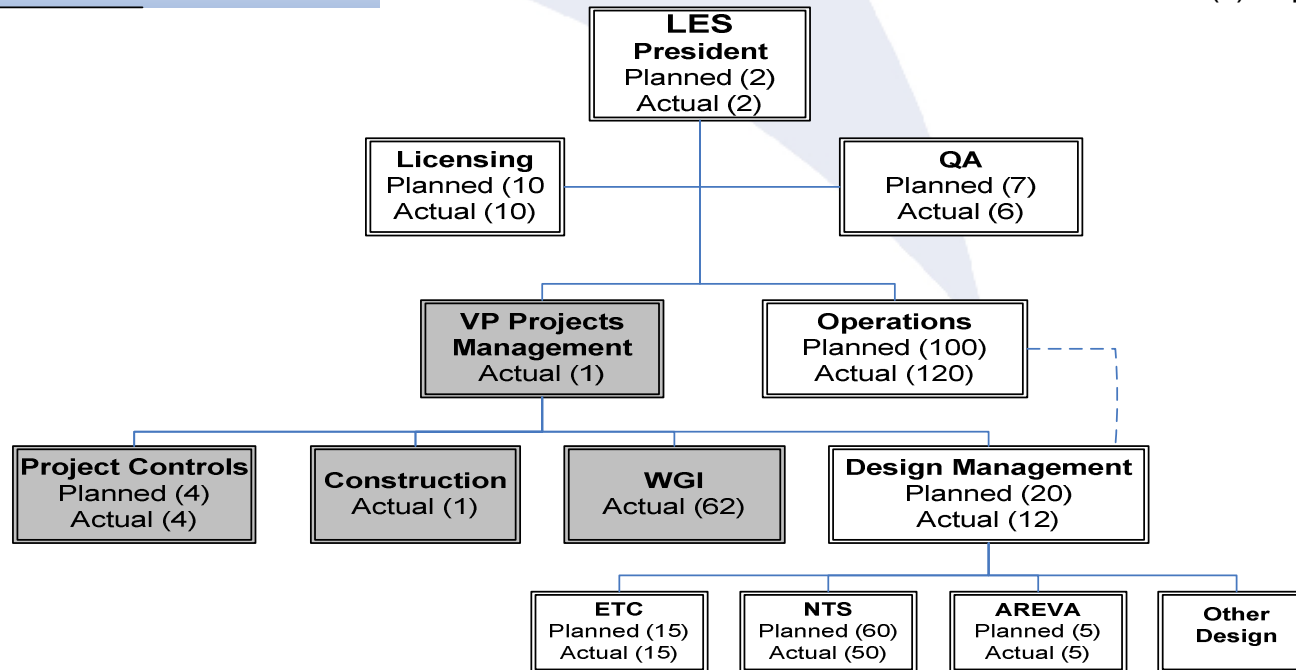
- NTS Infrastructure Design of Key Buildings by mid year – LES OARS follow
- IROFS Designs & Americanization in 2007
- While under a NRC combined construction/operating license (COL),
- While supporting long lead time procurement, manufacture, and construction of the NEF
- From a challenging starting point (minimal infrastructure and lack of detailed final design).
- Optimize design – evaluate improvements to project in accordance with 10 CFR 70.72 (e.g., function of CAB)

DMO Effort is far more involved than anticipated in July 2006

Organization – Historical Context Project Management/Construction

November 06

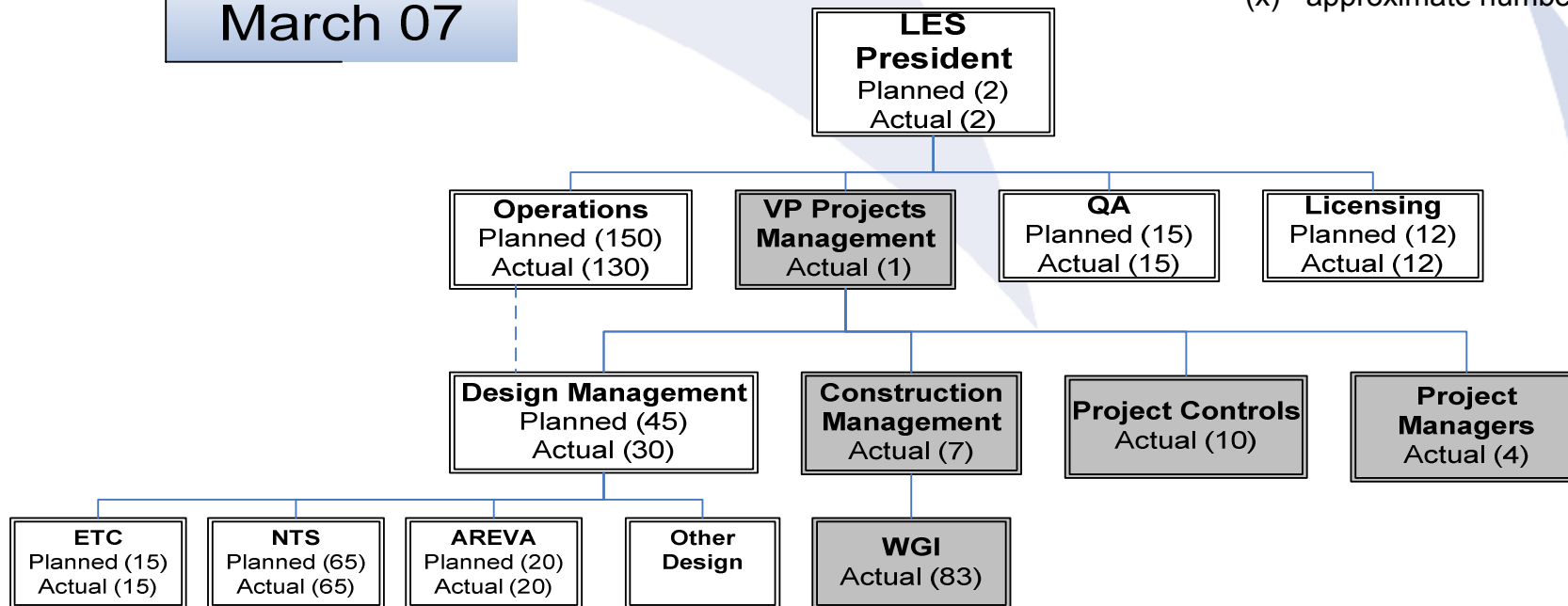
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Organization – Historical Context Project Management/Construction

March 07

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Construction Challenges

- Design and Permit delivery
- Staffing and logistics for the project
- Staff qualifications and training
- Work Planning, Execution, Oversight implementation
- Long lead time contracts/procurement
- Schedule risk

- Apparent Cause
 - Project management concept of LES placed high reliance on qualified contractor's performance and internal oversight
 - LES did not recognize and act fully on early negative indicators of the Construction Contractor's ability to manage work
 - Readiness Review indicated problems with programs and procedures – only limited observations of personnel actually executing work
 - Limited LES construction oversight and QA staff
 - LES Senior Staff focusing on improving effectiveness of Project Management during initial work
 - Initial work was perceived as non-complex

Construction Quality Deficiencies

- Apparent Causes
 - Construction Management Contractor did not properly plan the execution of initial QL-1 Activity
 - Poor coordination among groups
 - Weak indoctrination and training
 - Overconfidence, no practices/mock-ups
 - Little Self Assessment/Oversight
 - Experienced management team offsite when activity began

Construction Quality Deficiencies

- Actions
 - Suspended all QL-1 Backfill
 - Root Causes (LES and Construction Management Contractor) being completed
 - Personnel being exercised and Procedures modified – final actions will be result of interactions and iterations
 - LES/Construction Management contractor staff supplemented to increase depth and skill
 - Construction Management Contractor must demonstrate capability by Performance Demonstrations prior to commencing QL-1 Backfill

Construction Quality Deficiencies

- Extent of Condition
 - LES extended this experience into all areas of the project
 - additional staff, training, procedures
 - LES implemented daily involvement and management in all areas of construction
 - Selected construction work activities will require performance demonstrations
 - Integrated schedule allows recognition of major milestones where LES programs and personnel must be ready to assist or begin controlling portions of the site

Construction Status

- Current work
 - Excavation of site areas
 - QA 3 backfill
 - QA 3 underground electrical
 - Electric Utility Switchyard
 - NEF substation
 - Batch plant startup/trials
- Expected work in the next 3 months
 - Mechanical underground
 - QA-1 backfill
 - Preps for QA-1 concrete pour