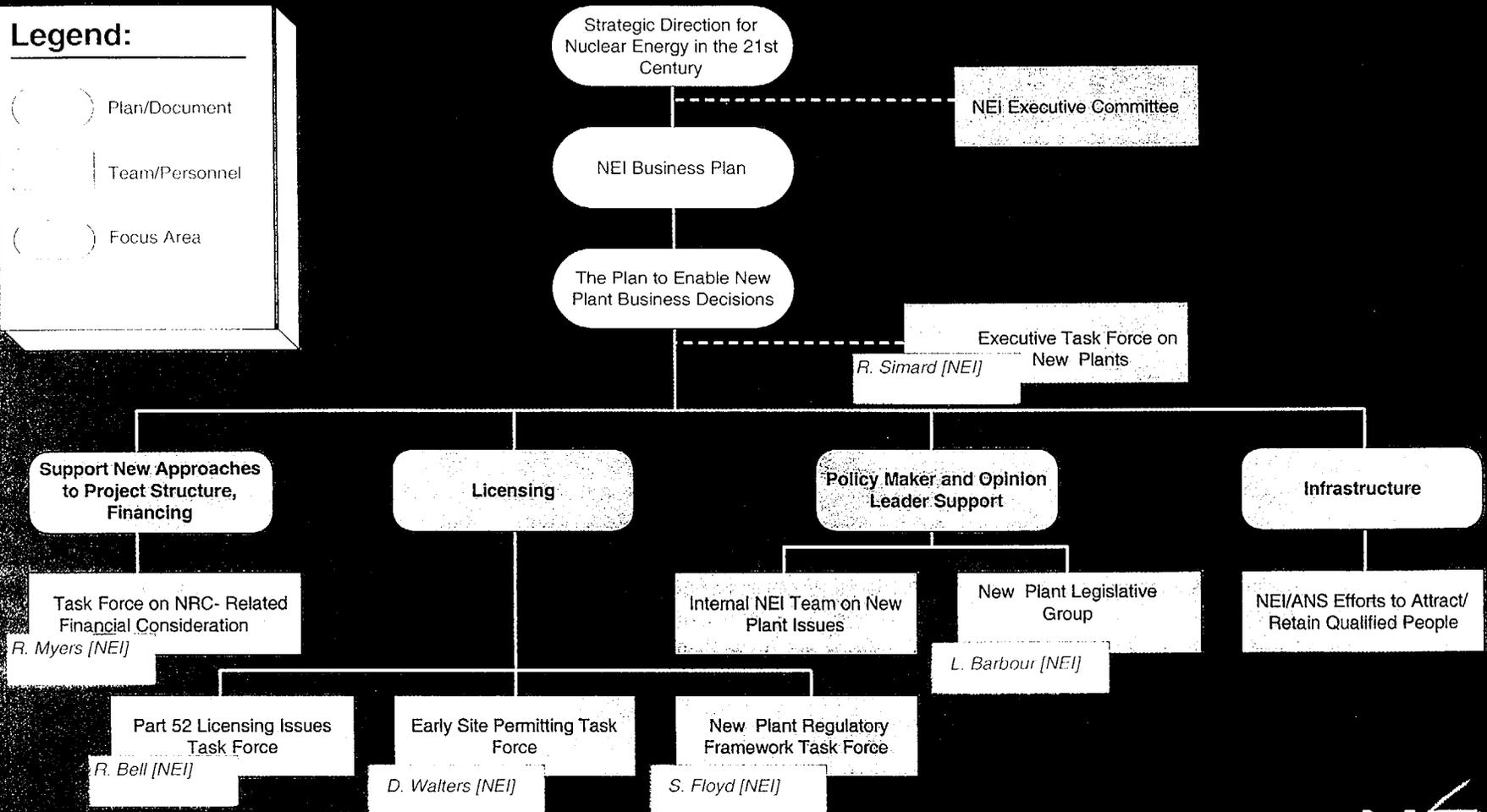
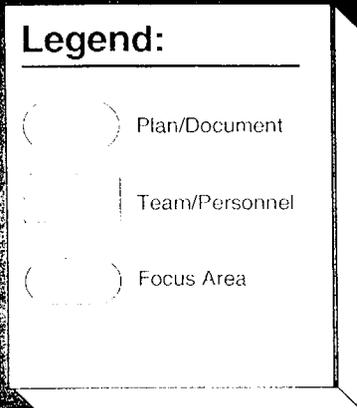


Activities in support of the plan to enable new plant business decisions



Overview of Generic Industry Activities on New Plants

NEI/NRC Meeting
April 5, 2001

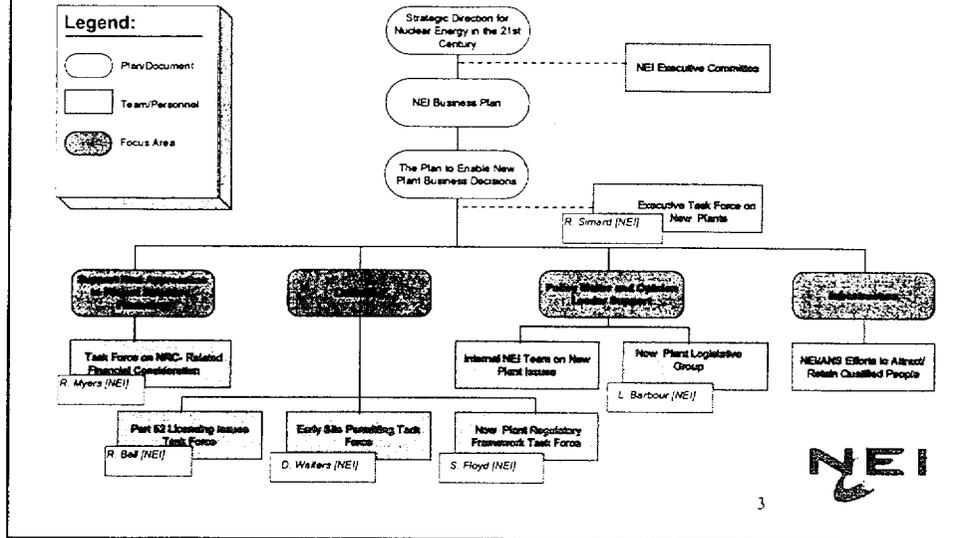


Agenda

- Overview
- Early Site Permits
- Part 52 and COL process
- Financial-related rulemakings
- New plant regulatory framework
- Discussion of integrated plans
- Future interactions



Activities in support of the plan to enable new plant business decisions



Early Site Permit Activities - Discussion Topics

- NEI Issue Task Force
- Guidance Document
- Rulemaking

Early Site Permit Activities - NEI Issue Task Force

- First meeting February 1
- Four electric companies
- NEI chairmanship and legal support
- EPRI provides technical support



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Early Site Permit Activities - NEI Issue Task Force

- Deliverables
 - Updating site selection criteria document
 - Guidance for preparing an early site permit application
 - Input on rule changes



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Early Site Permit Activities - NEI Issue Task Force

- Deliverables (cont'd)
 - Gap analysis on existing early site permit documents
 - Resource estimates of application preparation - including NRC review



7

Early Site Permit Activities - Guidance Document

- Incorporate existing guidance when valid and workable
- Encompass various types of sites
- Seek appropriate NRC endorsement



8

Early Site Permit Activities - *Guidance Document*

- **Schedule**
 - August 2001 - Draft early site permit application preparation guidance to NRC staff for review
 - December 2001 - Issue early site permit application preparation guidance for trial use
 - Mid-2002 - Expected initial ESP application



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Early Site Permit Activities - *Rulemaking*

- **Part 52 rule change**
- **NEPA issues**
 - White paper to NRC staff this month



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Part 52 Licensing Issues Task Force Activities

- Scope of required COL ITAAC
- Part 52 update rulemaking
- Construction inspection and ITAAC verification
- Part 52 implementation guidance
- COL application guidance

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Scope of COL ITAAC

- Draft industry white paper discusses:
 - Two possible interpretations of ITAAC requirements
 - Strong industry preference for hardware focus, i.e. no "programmable ITAAC"
 - Need for early Commission policy decision
- Issue is critical to:
 - Perceived certainty/workability of Part 52
 - Efficient use of industry resources, both now and later
 - Ability to focus this year on other important process-readiness issues

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Part 52 Update Rulemaking

- Several productive meetings w/NRC; written input provided this week
- Emphasis on clarity and completeness of NOPR over schedule
- Three categories of proposed changes:
 - Housekeeping, e.g., relocation of provisions
 - DCR “lessons learned,” e.g., change process and ITAAC verification provisions
 - Important enhancements/clarifications, e.g., to allow for completion of DAC at COL



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Part 52 Update Rulemaking (cont.)

- Key issues for NOPR
 - Credit for licensing bases of existing sites and facilities
 - Subpart A provisions allowing transfer of ESPs and bounding description of possible future facility types
 - Clarification of §52.103 process for modular plants
 - Requirement to provide updated PRA at COL
 - §52.99 and §52.103 processes (discussion and stakeholder input needed)
- At least one more public interaction planned to support NOPR preparation



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Construction Inspection and ITAAC Verification

- Important ITAAC verification provisions included in DCRs
- Implementation was discussed in public meetings on March 15 & 29, 1995
- Draft NRC Construction Inspection Program issued in 1996
- Need to resume interactions on CIP/IV to establish common understandings and guidance



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Part 52 Implementation Guidance

- Guidance is ideally developed in conjunction with associated regulations
- Industry guideline will provide effective vehicle for identifying and resolving issues
- Task force plans to:
 - Supplement current draft with guidance on key sub-processes, including ESP, COL, CIP/IV and start-up authorization
 - Discuss guidance in stages with NRC
 - Seek NRC endorsement at an appropriate time



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Vehicles for Resolving Part 52 and COL Process Issues

- Part 52 update and SOC
- Part 52 implementation guidance
- NRC Construction Inspection Program
- COL application guidance



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Schedule of Part 52/COL Activities

- Scope of required COL ITAAC
 - White paper to Commission this month; SRM this Summer
- Part 52 update rulemaking
 - NOPR in September
 - Comments due in December
 - Final Rule in Summer of 2002
- Construction inspection and ITAAC verification
 - Draft guidance on ITAAC verification process and initial meeting next month
 - Integrate into Part 52 implementation guidance
 - Follow-on interactions on NRC Construction Inspection Program
- Part 52 implementation guidance
 - Discuss pieces (e.g., CIP/IV) with NRC beginning next month
 - Provide complete draft to NRC with comments on NOPR (4Q01)
 - Refine guidance and issue for trial use in 3Q02
- COL application guidance
 - Initial interactions later this year



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New Nuclear Power Plants: NRC Financial Issues and Requirements

Recent History ...

1997

- NRC Policy Statement on Restructuring and Economic Deregulation of the Electric Utility Industry

1998

- New Standard Review Plan on Financial Qualification and Decommissioning Funding Assurance
- New rule on decommissioning funding assurance
- New, more business-like process for license transfers
- Guidance to Licensing Boards

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Going Forward ...

- Merchant project issues
 - Antitrust review
 - Decommissioning funding assurance
 - Financial qualification
- Modular plant issues
 - Price-Anderson secondary protection
 - NRC rules governing annual fees, operator staffing, etc.

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Antitrust Review

- Required by Section 105.c of Atomic Energy Act
- No longer required for license transfers; required for new plants
- Two remedies:
 - *Statutory change*
 - *Exception per Section 105.c.2(7) for merchant plants*
- Industry formulating position ... discussions with NRC, DoJ ongoing ... resolution by end 2001



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Decommissioning Funding Assurance

- Requirements in 10 CFR 50.75
- Licensees permitted to use external sinking fund if ...
 - subject to cost of service regulation
 - able to collect decommissioning costs through non-bypassable charge



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Decommissioning Funding Assurance

(continued)

If no cost-of-service or wires charge ...

- prepayment
- surety bond
- letter or line of credit
- insurance
- self-guarantee or parent company guarantee subject to requirements in Part 30, Appendix A and C
- specific contractual obligation
- other option(s) yet to be defined



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Financial Qualification

- For construction: demonstrate source of funds for construction, fuel
- For operation:
 - *pro forma* showing annual operating costs, sources of funds for first 5 years of operation (supply/demand test)
 - investment-grade rating from at least two rating agencies
- If applicant does not have investment-grade bond rating, or cannot meet supply/demand test, then must demonstrate sufficient financial resources to cover fixed operating costs for 6 months



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Modular Plant Issues

- Secondary protection under Price-Anderson
 - *NRC rules = \$88.1-million liability for “each nuclear reactor”*
 - *Atomic Energy Act = \$88.1-million liability for “each nuclear facility”*
- Other issues, including:
 - User fees (§171.15)
 - Operator staffing [§50.54(m)]
 - Number of licenses (§50.10)
 - Definition of utilization facility (§50.2)
- Industry developing position(s) ... discussions with NRC ongoing



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Possible Statutory Changes

- Remove antitrust requirement in Section 105(c)
- Remove prohibition on foreign ownership in Section 103(d)
- Revise definition of “utilization facility” in Section 11(cc)



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New Plant Regulatory Framework Objectives

- Replace deterministic regulations with risk-informed, performance based regulations where appropriate
 - Incorporates 30+ years operating experience
 - Incorporates risk insights from PSA
- Align regulations with Reactor Oversight Process
 - Minimize differences between compliance and safety



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New Plant Regulatory Framework

- Tops-down approach based on NRC mission
- Reinforce NRC Safety Cornerstones
- Develop set of General Design Criteria and General Operating Criteria
- Develop an improved set of generic, risk-informed, performance-based regulations
- Develop design-specific regulatory guides to meet regulations



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**NRC's Mission to Provide Adequate
Protection of Public Health & Safety**

Strategic Performance Areas

Safety Objectives of Seven Cornerstones

Key Attributes of Importance

General Design and Operating Criteria

Risk-Informed, Performance-Based Regulations

Design-Specific Regulatory Guides

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Benefits of Establishing New Regulatory Framework

- Used successfully for Reactor Oversight Process
- Provides platform for agreement on principles and objectives
 - Using ROP framework avoids “re-invention” of framework already accepted by NRC
- Ensures issues are focused on safety and are tied to defined safety objectives

30



Benefits of Establishing New Regulatory Framework

- Helps establish a new paradigm of thinking not burdened by current requirements
- Provides a standard against which to set requirements or process exemptions
- Helps to de-emotionalize “pet issues”
- Creates a design independent framework
- Aligns regulations with oversight process

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NEI Task Force

- Kick-off April 2001
- Deliverables (December 2001)
 - Proposed General Design Criteria
 - Proposed General Operating Criteria
 - Proposed risk-informed, performance-based set of regulations
- Meet periodically with NRC staff in public meetings during 2001 as drafts are developed

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Schedule

- Petition NRC for ANPR -- 12/01
- ANPR in FRN -- 4/02
- NOPR in FRN -- 4/03
- Final Rule -- 4/04

GENERIC NEW PLANT ACTIVITIES INVOLVING NRC RESOURCES

Part 52 and COL Processes

Clarify scope of COL ITAAC

Provide input to and comments on Part 52 update rulemaking

Petition to add Part 52 provisions for improving the efficiency of ESP & COL processes

Petition to delete Part 52 requirements for alternate site reviews

Clarify construction inspection, ITAAC verification & start-up authorization processes

Develop Part 52 implementation guidance

Develop COL application guidance

Facilitate and Support Initial ESP Applications

Develop ESP application guidance

Initiate ESP pilot project(s)

Generic Regulatory Framework

Develop conceptual framework (GDC, GOC & regs) as basis for Part 50 rule change

Rulemaking to change 10 CFR

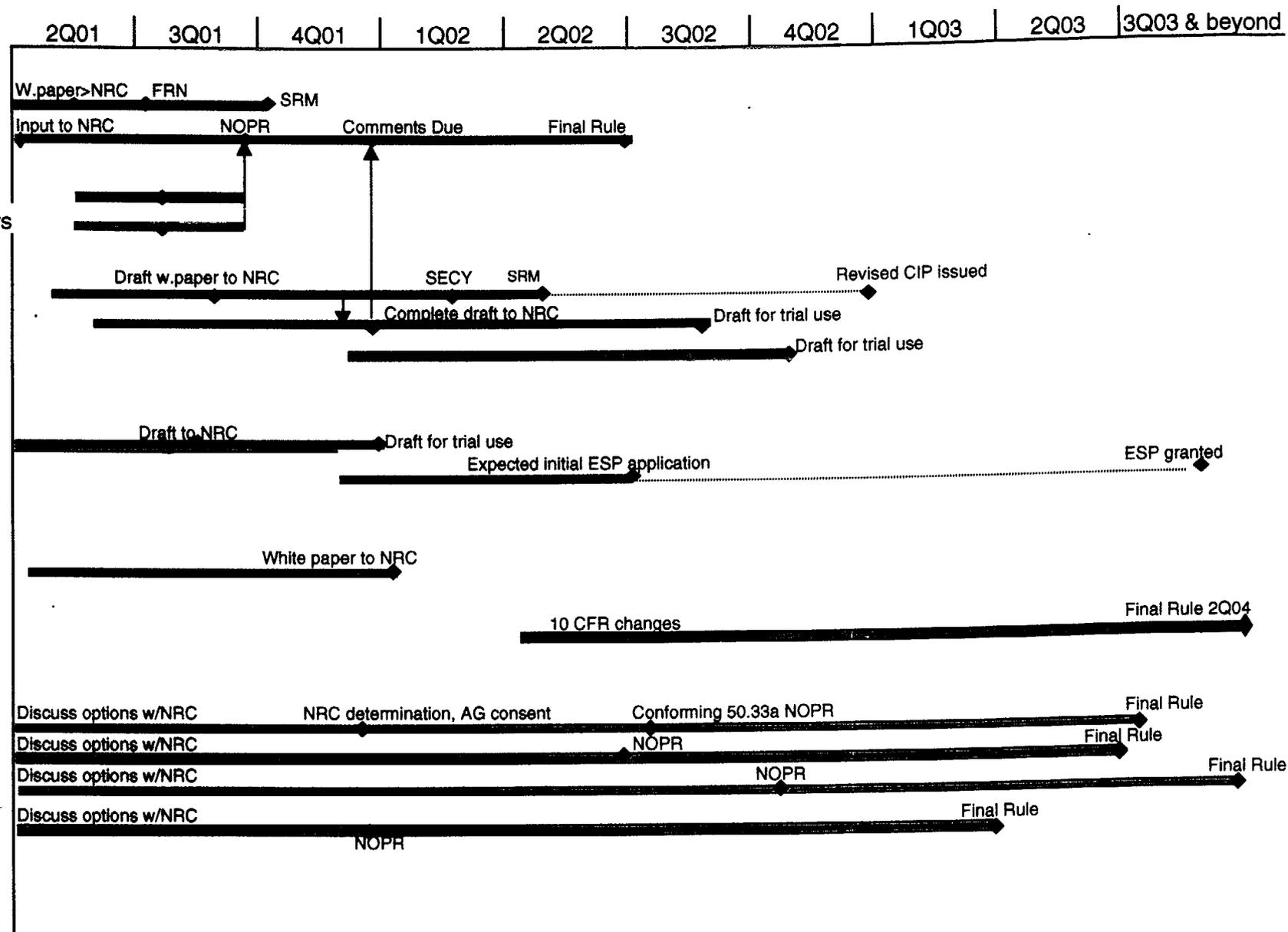
Clarify/Modify Financial-Related NRC Regulations

Elimination of NRC antitrust review requirements

Assurance of adequate decommissioning funding

Demonstration of financial qualifications

Clarify definition of "facility" for purposes of Parts 140, 171 and 50.10



Overview of Generic Industry Activities on New Plants

NEI/NRC Meeting
June 26, 2001



Agenda

- Overview
- Part 52 and COL process
- Early Site Permits
- New plant regulatory framework
- Financial-related rulemakings
- Discussion of integrated plans
- Future interactions

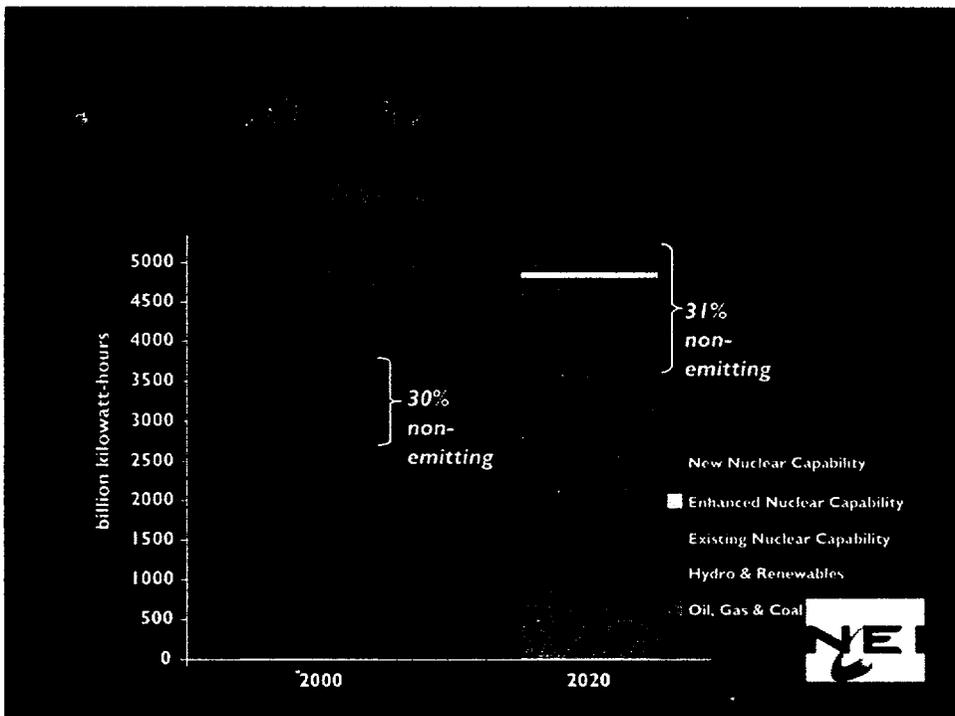


The energy and environmental imperatives

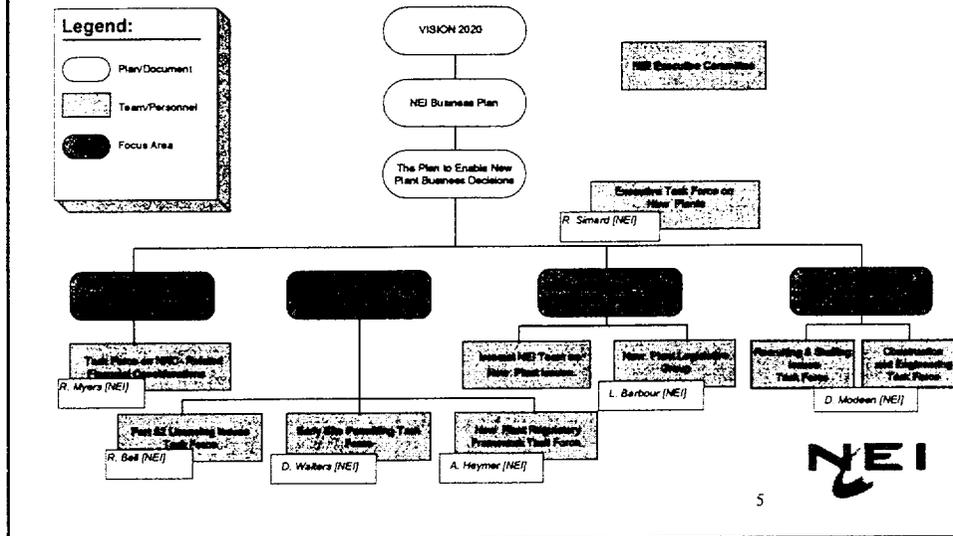
- 400,000 MW of additional capacity needed by 2020 (to replace existing plants that reach end of life and to meet new demand)
- A 50% increase in nuclear capacity is needed *just to maintain* the current percentage of emission free generation in the electricity sector



3



Activities in support of the plan to enable new plant business decisions



Part 52 Licensing Issues Task Force Activities

- Part 52 update rulemaking
- Scope of required COL ITAAC
- ITAAC verification and construction inspection
- Part 52 implementation guidance
- COL application guidance (Future)

Part 52 Update Rulemaking

- Industry input (mark-up) provided on April 3
- Emphasis on clarity and completeness of NOPR over schedule
- Part 52-related petitions being prepared:
 - Add new sections §§ 52.16 and 52.80 to improve efficiency of NRC ESP/COL reviews based on previously approved site/facility information
 - Eliminate ESP requirement for NEPA review of alternate sites and Part 51 requirement for NEPA review of alternatives
 - ◆ Need for power
 - ◆ Alternative sources
 - ◆ Alternative sites



7

Scope of COL ITAAC

- SECY-00-0092 provides NRC staff position
- May 14 white paper expressed strong industry preference for hardware focus, i.e. no "programmatically ITAAC"
- Public input to be sought via FRN
- No effect on Part 52 (interpretation only)
- Early Commission policy decision needed to support:
 - Certainty/workability of Part 52
 - Efficient use of industry resources, both now and later
 - Ability to focus this year on other important process-readiness issues



8

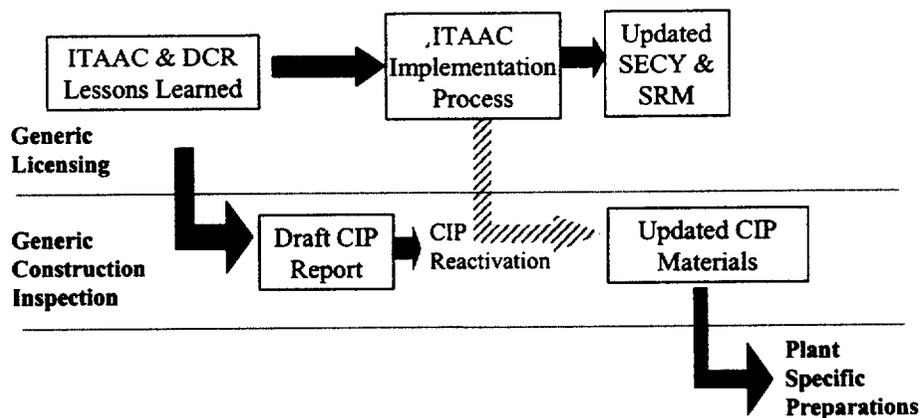
ITAAC Verification and Construction Inspection

- Productive meeting on June 15 to restart interactions dormant since 1995
- Objective: Common understanding of goals, principles and guidance for effective, efficient and predictable ITAAC verification
 - To provide a complete understanding of this key Part 52 process and support informed business decisions
 - To serve as a platform for construction planning and detailed construction inspection program (CIP) development



9

CIP Development Process



10

ITAAC Verification Topics

<u>Discussed on June 15</u>	<u>Future Discussion</u>
Background and basics	52.99 and 52.103 processes
ITAAC verification process	Engineering design verification
Timing of ITAAC findings	Operational program inspections / transition to full power ops
Construction process inspections	ITAAC determination matrix – framework and examples
Safety-focused CIP	Safety-focused CIP



11

Path Forward on ITAAC Verification

- Sound ITAAC verification process is vital to assuring predictability and workability of the Part 52 process
- Clarify ITAAC verification process in parallel with -- and to inform -- CIP reactivation
- Do so over the balance of 2001
- NEI to provide white paper as basis for detailed interactions
- SECY and SRM in 2002



12

Part 52 Implementation Guidance

- Industry guideline will provide effective vehicle for identifying and resolving issues
- Task force plans to:
 - Supplement current draft with guidance on key sub-processes, including ESP, COL, ITAAC verification and transition to start-up
 - Discuss guidance in stages with NRC
 - Seek NRC endorsement at an appropriate time

13



Vehicles for Resolving Part 52 and COL Process Issues

- Part 52 update and SOC
- SRM on scope of COL ITAAC (new)
- Part 52 implementation guidance
- SRM on ITAAC verification process and related issues (update of SECY-94-294) (new)
- NRC Construction Inspection Program
- COL application guidance

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Schedule of Part 52/COL Activities

- Scope of required COL ITAAC
 - FRN issued June 25; comments due Aug. 8; SRM to follow
- Part 52 update rulemaking
 - NOPR in September
 - Comments due in December
 - Final Rule in Summer of 2002
- ITAAC verification and construction inspection
 - Initial meeting June 15; follow-up proposed for late July
 - Draft white paper to NRC (August)
 - Integrate into Part 52 implementation guidance (December)
 - Follow-on interactions on NRC Construction Inspection Program (later as needed)
- Part 52 implementation guidance
 - Discussion of pieces (e.g., ITAAC verification) with NRC underway
 - Provide complete draft to NRC with comments on Part 52 NOPR (December)
 - Refine guidance and issue in draft form in 3Q02
- COL application guidance
 - Initial interactions later this year



15

Early Site Permit Activities - *Discussion Topics*

- NEI Early Site Permit Guidance Document
- ESP Application Preparation and Review Timeline



16

Early Site Permit Activities - Guidance Document

- Incorporate existing guidance when valid and workable
- Encompass various types of sites
- Seek appropriate NRC endorsement



17

Early Site Permit Activities - Guidance Document

- Schedule
 - August 2001 - Draft early site permit application preparation guidance to NRC staff for review
 - December 2001 - Issue early site permit application preparation guidance for trial use
 - Mid-2002 - Expected initial ESP application



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Early Site Permit Activities - Guidance Document

- Key Elements
 - Site safety analysis
 - ◆ plant parameter envelope
 - Environmental report
 - Emergency plan

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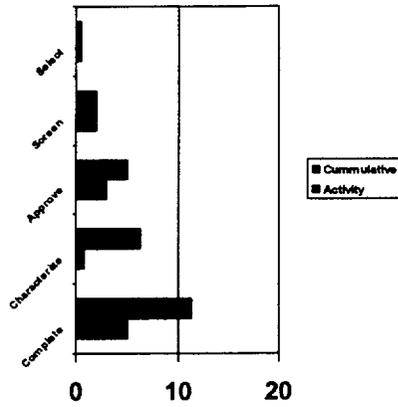
Early Site Permit Activities - Application Preparation and Review Timeline

- Estimate of 11 months to prepare an ESP application for an existing site
- Estimate of 26 months for NRC review based on existing requirements
- Potentially less time if:
 - ESP is for an existing site
 - there are process improvements

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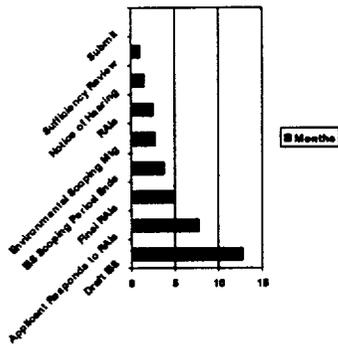
Early Site Permit Application Preparation Time



- Assumes application is for an existing site
- Once information is collected, application preparation time is five months



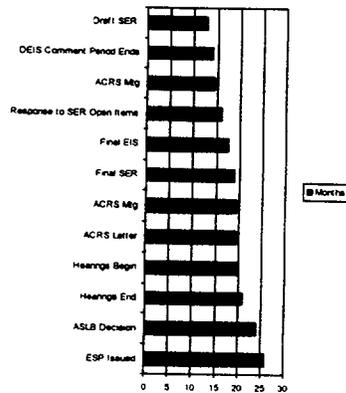
Early Site Permit Application - Estimated NRC Review Time



- The RAI process should begin as soon as possible after the application is received
- The Environmental Scoping meeting is not required



Early Site Permit Application - Estimated NRC Review Time



- Assumes 45 day comment period for draft EIS
- Assumes 1 month for hearings

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New Plant Regulatory Framework

- Advent of new designs & business needs provides impetus for regulatory improvements
- Initial applications under new framework 2005/2006
 - New regulations issued 2004
 - Industry White Paper 1/2002

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Preliminary Concept

- Build framework model on new regulatory oversight process
 - General provisions
 - Reactor safety
 - Radiation safety (performance-based requirements for power reactors)
 - Security (minimal change)
 - General requirements
 - Administrative requirements



25

White Paper Outline

- Introduction
 - Purpose overview, framework definition
- Background
 - Rationale for a new framework
 - Need for consistency & improvement
- Description of the framework & process
- Framework Elements
- Appendices
 - Draft language, preliminary list of regulatory guides



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NRC-Related Financial Issues

- Merchant project issues
 - Antitrust review
 - Decommissioning funding assurance
 - Financial qualification
- Modular plant issues
 - Price-Anderson secondary protection
 - NRC rules governing annual fees, number of licenses



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Antitrust Review

- Discussions underway with NRC re: legal framework for determination that antitrust review not required for new nuclear plants built by unregulated generating companies
- December 2001: Industry target date for NRC determination, Attorney General consent
- Rulemaking to conform §50.33a to new determination would follow



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Decommissioning Funding Assurance

- Industry currently exploring assurance mechanisms for new plants that would satisfy §50.75(e)
- If rulemaking necessary ...
 - *June 2002: NRC publishes Notice of Proposed Rulemaking*
 - *June 2003: Rulemaking on decommissioning funding assurance complete*



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Financial Qualifications

- Existing regulatory guidance on FQ (Standard Review Plan, §50.33(f) appears to be acceptable
- Any changes in this area have relatively low priority



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Price Anderson Secondary Protection

- White Paper suggested legal basis for administrative remedy via rulemaking
- Question to NRC from Member of Congress re: whether NRC can address this issue through rulemaking
- Likely remedy: statutory change

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Number of Licenses, Annual Fees

- 2001: Industry/NRC dialogue on issues
- January 2002: NRC Notice of Proposed Rulemaking
- March 2002: Comments on NOPR
- March 2003: Final Rulemaking

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