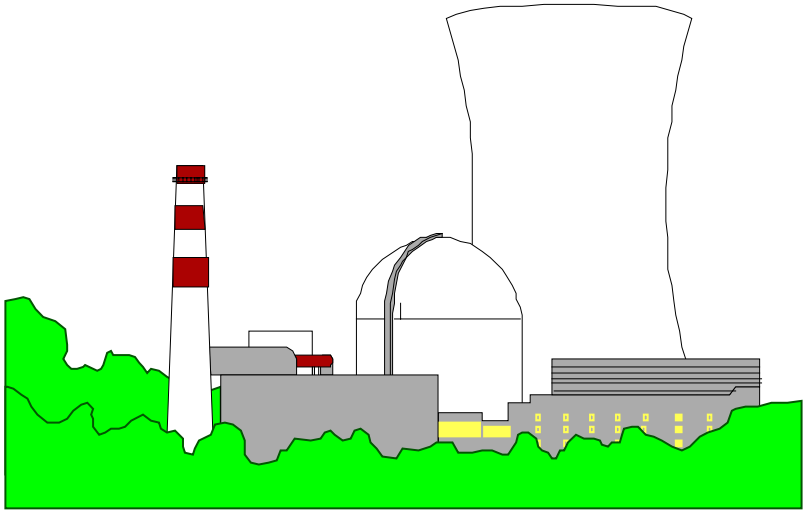
10 CFR Part 52 Construction Inspection Program and Combined License Issues



January 29, 2004

Nuclear Regulatory Commission

Inspection Program Branch

New Reactors Section

Quality and Maintenance Section

Emergency Preparedness Project Office

Agenda

- Discussion of changes made to framework document
- Discussion to clarify issues related to engineering design verification
- Discussions related to CIPIMS
- Combined License Issues

Overview

- IMC 2502 – Pre-COL
- IMC 2503 – ITAAC
- IMC 2504 – Non-ITAAC Inspections

IMC 2502 – Pre-COL
Engineering Design Verification

- Objective: ensure that requirements and commitments have been correctly translated into detailed design
- Scope: Varies – EDV part of IMC 2502, design change reviews in IMC 2504
- Documentation: Inspection report
- EDV and DAC: Timing of DAC reviews will depend on when the information is ready

IMC 2503 – ITAAC

- Narrowed the content
  - "verification that the ITAAC of a combined license have been met"
- Simplified & explained the inspection process
  - Routine inspection
  - Periodic assessments to re-focus inspection effort
  - ITAAC determinations
  - Role of SAYGO

SAYGO

- Emphasizing SAYGO as a process to be used by the NRC
- NRC satisfaction to that point
  - Processes
  - Entire ITAAC or individual steps
- Provides the ability to track progress – in inspection and construction - On-going assessment of staff to support 52.103(g) finding

IMC 2504 – Non-ITAAC Inspections

- Operational programs
  - Could include security, fire protection, training, etc.
  - Status to the RA at time of ITAAC recommendation
- Engineering reviews not completed as part of COL
- Operational Readiness (ORAT)
  - After ITAAC determination
- Pre-op testing

Operational Program Reviews

- At time of application – level of detail to be determined – Commission paper will shape this.
- Focus on implementation of the programs throughout construction.

Documentation

- Inspection reports will document everything and will provide a complete record
  - Inspection findings
    - Statements of acceptability of what was observed
    - Some to the CAP – others to open items
  - Violations
  - Assessments
  - ITAAC determinations will also be documented in the Federal Register
- IMC 0613 – to be developed – Power Reactor Construction Inspection Reports

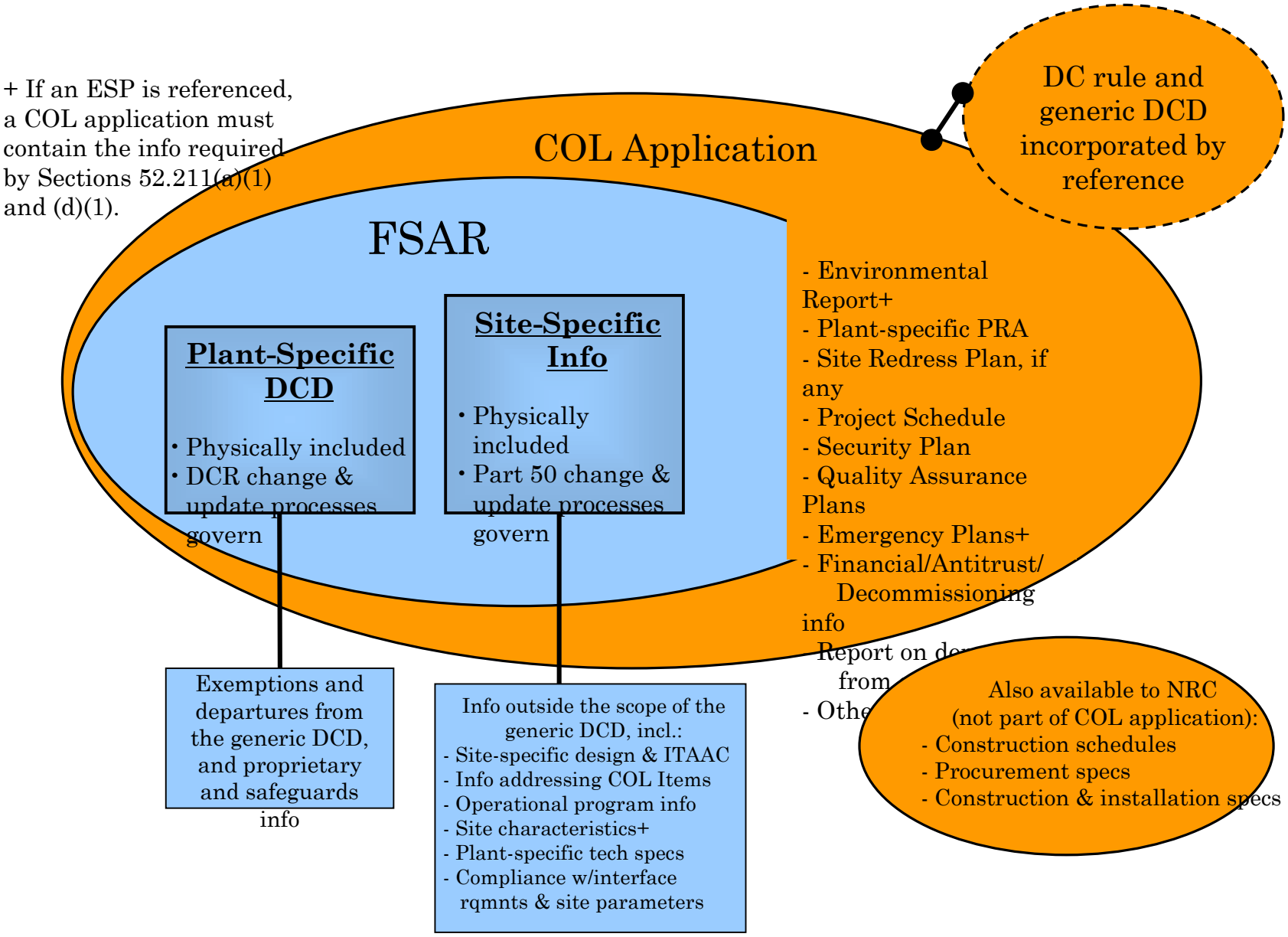
CIPIMS

- CIPIMS will track data
- Issues
  - Establishing the proprietary nature of schedules
  - Establishing the appropriate level of detail for the schedule
  - Establishing an efficient process for routine sharing of schedule information

Combined License (COL) Issues

- Feedback on January 12, 2004, NEI letter
  - Preliminary feedback given according to 5 areas in NEI's letter
    - Area 1 – COL application scope/content
    - Area 2 – COL application final safety analysis report (FSAR)
    - Area 3 – Level of detail for a COL application
    - Area 4 – Addressing COL items identified in generic design control documents
    - Area 5 – Plans for developing detailed COL application outlines
      - Status of Standard Review Plan
      - Guidance on which revision should be used
      - Status of Chapter 2, which is not on the NRC's website

Attachment 1 From NEI 1/12/04 letter



Staff Feedback for Area 1

- COL application (52.77 – 52.79)
  - Financial
    - Antitrust (50.33a)
    - Financial (50.33)
    - Decommissioning report (50.33(k) and 50.75)
  - Environmental
    - Environmental Report (50.30(f))
    - Site redress plan (52.79)
  - Final Safety Analysis Report (50.34(b))
  - Other information

Staff Feedback for Area 1

- NEI's Attachment 1 shows the following to be outside the scope of the final safety analysis report (FSAR)
  - Plant-specific PRA
  - Security plan
  - Quality assurance plan
  - Emergency plans
  - The staff does not agree that descriptions of these plans and programs are outside the scope of the FSAR
- Some information from the COL application appears to be missing
- Reference to design certification rule and generic design control document is misleading

Staff Feedback for Area 1
(Information to be included in FSAR)

- Quality assurance standard review plan
  - 17.1 Quality Assurance During the Design and Construction Phases
  - 17.2 Quality Assurance During the Operations Phase
  - 17.3 Quality Assurance Program Description
  - 17.4 Reliability Assurance Program
- Staff expects that the combined license (COL) FSAR will contain information in all these areas and will reference design control document (DCD) information and other information as applicable

Staff Feedback for Area 1
(Information to be included in FSAR)

- Emergency Plans
  - Emergency plans are part of the FSAR
    - 50.34(b)(6)(v), section III of Appendix E to Part 50, and sec. 13.3 of the SRP (NUREG-0800)
    - Emergency planning, pursuant to Part 50 App. E, must be included in the application's FSAR.
  - Other Emergency plan feedback
    - COL emergency plan will be developed as part of the ongoing discussions related to EP ITAAC, and resolution of related application and policy considerations
    - COL-10 - EP ITAAC does not encompass all EP-related application requirements. Non-EP ITAAC areas would be treated the same as other programmatic areas in the application.
    - Reference to 52.211(a)(1) and (d)(1) are to the proposed rule not the current rule

Staff Feedback for Area 1
(Information to be included in FSAR)

- Plant-specific PRA
  - Tier 2 Chapter 19 of design control documents (DCDs) have probabilistic risk assessment information
- Security Information
  - Tier 2 Chapter 13.6 of the DCDs have security information

Staff Feedback for Area 1
(Information missing from COL application)

- The staff expects other pieces of information as a part of the COL application
  - Inservice inspection and inservice testing (ISI/IST)
    - Program description in FSAR
    - ISI/IST detailed program plans in accordance with ASME code should be part of application
  - Maintenance rule
    - Program description and conformance to applicable regulatory guides should be in FSAR
    - FSAR discussion should also include how program will be implemented
  - Other programmatic areas: fitness for duty, access authorization, reportability, licensed operator training

Staff Feedback for Area 1
(Information missing from COL application)

- Pieces of information part of the COL application (continued)
  - Demonstration that the design falls within the characteristics of the site (depending on what is referenced)
    - COL referencing early site permit (ESP) and certified design (52.211(a)(1) of proposed rule)
      - What will be done if the methods for determining site characteristics in the ESP and the corresponding site parameters or site-related design parameters in the certified design do not match?
        - » [Example: Wind speed (fastest mile, 3-second gust)]
    - COL referencing a certified design and no ESP

Staff Feedback for Area 1
(Reference to Design Certification Rule)

- NEI figure shows tie between design certification rule/generic design control document and COL application
  - Staff believes reference should be to final safety analysis report

Staff Feedback for Area 2 - FSAR Content Assuming Certified Design and Early Site Permit Referenced

Generic Portion of Plant Specific Design Control Document (DCD)	Changes from the Generic DCD identified in application	Early Site Permit Site Safety Analysis Report	COL Supplied Information
Evaluated in applicable Final Safety Evaluation Report for Design Certification	Evaluated and documented in COL Safety Evaluation Report (SER) as appropriate? -Exemptions and other changes (e.g., tier 2*)	Evaluated in applicable final safety evaluation report for early site permit	Evaluated in COL SER application contains the following: - COL issues not previously reviewed - design of the facility falls within parameters of ESP - Should provide pointers to plant specific DCD and ESP
Design Certification Rulemaking (DCR) change and update process (Section VIII of DCR) Change process for life of plant before and after COL issued Frequent updates envisioned IAW Section X.B of DCR	Section VIII of DCRs governs subsequent changes?	Change process for this information not yet identified will be based on form and content of ESP Use 52.227 as model?	Changes prior to issuance of a COL reviewed and evaluated prior to issuing COL After a COL is issued changes made in accordance with proposed 52.227(d)

Plant Specific DCD

COL FSAR

Staff Feedback for Area 3

- Technical Specifications
  - Section VIII, “Processes for Changes and Departures,” Section C, “Operational requirements,” of design certification rule
    - Discusses treatment and changes associated with technical specifications
- Design acceptance criteria
  - Expect final safety analysis report to be updated, as appropriate, once design is completed in these areas

Staff Feedback for Area 4

- COL action items
  - If the COL applicant chooses to defer development of specific plant-related procedures until after the COL is issued, then inspections, tests, analyses and acceptance criteria (ITAAC) or license condition may be necessary to capture the commitment(s)

Staff Feedback for Area 5

- Status of Standard Review Plan Update
  - Staff requirements memorandum dated October 31, 2003
    - Directed the staff to provide the Commission the status, approach and plans for maintaining a current and effective set of guidance documents (Regulatory Guides, Standard Review Plans and Review Standards) for staff and applicant use.
    - Response due by February 2004
  - Interim guidance regarding standard review plan

Staff Feedback for Area 5 – SRP

- Applicants should use official version of SRP to meet 10 CFR 50.34(h)* requirements supplemented by:
  - Regulations and regulatory guides promulgated after the SRP was issued
  - Guidance contained in early site permit review standard for applicable chapters (RS-002)
  - Guidance provided in the design control documents and final safety evaluation reports for the certified designs (i.e., advanced boiling water reactor, System 80+ and AP600) and in the design control document and draft safety evaluation report for the AP1000
  - Applicable guidance contained in the draft standard review plan dated 1996
  - Applicable SECY papers and Commission staff requirements memorandum

*50.34(g) redesignated 50.34(h) as part of combustable gas control rule

Staff Feedback for Area 5 -SRP

- Design Control Document Information
  - Design Control Document Tier 2 Section 1.8 of the ABWR and System 80+ and Tier 2 Section 1.9.2 of the AP600 and AP1000 discuss conformance with the standard review plan
- FSER and DSER sections discuss the review criteria
- In some cases SRP sections are not available
  - Chapter 19 – Severe Accidents
  - Chapter 20 – Generic Issues
  - Chapter 21 – Testing and Computer Code Evaluation
  - Chapter 22 – Regulatory Treatment of Non-Safety Systems
- In some cases SRP sections only exist in draft form
  - Chapter 14.3, “Inspections, Tests, Analyses, and Acceptance Criteria - Design Certification”
  - Chapter 17.4, “Reliability Assurance Program”