



PUBLIC MEETING

<http://meetings.nrc.gov/pmns/mtg?do=details&Code=20150270>

APPLICATIONS FOR NUCLEAR POWER PLANTS Regulatory Guide 1.206 [Revision]

**Division of Advanced Reactors and Rulemaking
Office of New Reactors**

March 31, 2015



Regulatory Guide (RG) 1.206 Revision

Public Meeting – Category 2

<http://meetings.nrc.gov/pmns/mtg?do=details&Code=20150270>

Bridge Number: 8885667601 Passcode: 58207

Purpose: Discuss initiative to revise RG 1.206, "Combined License Applications for Nuclear Power Plants," which provides the format and content guidance for 10 CFR Part 52 applications

Documents: [ML15063A374](#) - Public Meeting Agenda 3/31/2015
[ML15071A239](#) - Regulatory Guide 1.206 (Draft) Section C.2
[ML15057A165](#) - Regulatory Guide 1.206 (Draft Revision)

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Agenda

<i>Time</i>	<i>Topic</i>	<i>Speaker</i>
1:00 p.m.	Opening and Introductions	NRC
1:15 p.m.	Presentation <ul style="list-style-type: none">– RG 1.206 Revision Initiative– Draft: C.1 Application Format & Content	NRC
2:15 p.m.	Discussion of draft material	ALL
2:45 p.m.	Break	ALL
3:00 p.m.	Presentation <ul style="list-style-type: none">– Draft: C.2 Application Regulatory Topics	NRC
3:30 p.m.	Discussion of draft material	ALL
4:00 p.m.	Participant and Public Feedback	ALL
4:30 p.m.	Review Action Items and Schedule	NRC
5:00 p.m.	Adjourn	NRC



Overview – RG 1.206 Revision

- ❖ WHAT ... is this initiative?
 - ❖ Regulatory Guide 1.206 - Combined License Applications for Nuclear Power Plants (2007)
- ❖ NRC staff concept & approach – summer 2014
- ❖ 1st Public Meeting – September 2014
 - ❖ Presented proposed initiative
 - ❖ Solicited feedback
- ❖ Stakeholder feedback
 - ❖ General endorsement – initiative & approach
 - ❖ NEI letter January 2015 – support + comments
- ❖ 2nd Public Meeting – March 2015
 - ❖ Present / discuss draft documents
 - ❖ Feedback: scope & content



“Applications For Nuclear Power Plants” [Revision]

Objective: Comprehensive revision to clearly articulate acceptable methods to 1) satisfy regulatory requirements and 2) support effective and efficient application reviews

- ✓ Application content & format
- ✓ Application-related regulatory topics
- ✓ Safety analysis report – detailed content & format



Scope – RG 1.206 Revision

- 10 CFR Part 52 applications
- Entire application – safety, environmental, other
- Lessons learned from prior applications
- Guidance for regulatory issues (e.g., electronic submittals, requests for additional information)
- Correlate with other applicant/licensee guidance and Standard Review Plan
- Guidance related to Fukushima topics
- Expectations for high-quality applications



WHY ... is there a need & why now?



- NRC anticipates additional applications – including small modular reactors (SMRs)
- NRC intends more effective and efficient reviews
- Institutionalize lessons learned from prior and ongoing application reviews [New Reactor Licensing Process Lessons Learned Review: 10 CFR 52 (ML13059A239)]
- Some prospective applicants not previously experienced with Part 52



HOW ... the NRC staff's approach

- Revised RG 1.206 is “umbrella” guidance document
 - ✓ Integrate – not duplicate – applicable requirements/guidance
 - ✓ Pointers to requirements, policies, regulatory guides, interim guidance, staff instructions/directives
 - ✓ User-friendly
- Phased approach
- Staff inter-office working group
- Stakeholder (internal) alignment
- Adhere to NRC’s principles of good regulation
 - e.g., public interactions – initial public meeting Sep 17, 2014



Applications For Nuclear Power Plants

<http://adamswebsearch2.nrc.gov/webSearch2/view?AccessionNumber=ML15057A165>

A. Introduction

B. Discussion

C. Guidance

C.1 Applications – Standard Format & Content

Part 1 – through – Part 11

C.2 Applications – Regulatory Topics

**e.g., Pre-application Activities; Application Electronic Submittal;
Application Acceptance Review; ... additional topics**

Appendices: Safety Analysis Reports – Standard Format & Content

Appendix A – Combined License Final Safety Analysis Report (FSAR)

Appendix B – Early Site Permit Site Safety Analysis Report (SSAR)

Appendix C – Standard Design Certification FSAR

**Appendix D – Combined License FSAR for applications referencing
Standard Design Certification and/or Early Site Permit**



“Parts” of the Application

C. Guidance

C.1 Applications – Standard Format & Content

Part 1 – General & Financial Information

Part 2 – Safety Analysis Report

Part 3 – Environmental Report

Part 4 – Technical Specifications

Part 5 – Emergency Plans

Part 6 – Security Plans

Part 7 – Exemptions / Departures / Variances

Part 8 – License Conditions & Inspections, Tests, Analyses, & Acceptance Criteria (ITAAC)

Part 9 – Withheld Information

Part 10 – Quality Assurance Program Description

Part 11 – Supplemental Information



C.1 – Table 1: Application Format & Content

Application Part	Combined License	Early Site Permit	Standard Design Certification
Transmittal Letter	✓	✓	✓
Part 1:	✓	✓	✓
Part 2:	✓	✓	✓
Part 3:	✓	✓	✓
Part 4:	✓	Not Applicable	✓
Part 5:	✓	Optional	Not Applicable
Part 6:	✓	Not Applicable	Not Applicable
Part 7:	✓	Optional	Optional
Part 8:	✓	Optional	✓
Part 9:	✓	✓	✓
Part 10:	✓	✓	✓
Part 11:	Optional	Optional	Optional





PART 5 – Emergency Plans

Emergency plans and relevant supplemental information comprise Part 5 of the application ...

- Combined license requirements ... §52.79(a)(21)
- Early site permit requirements ... §52.17(b)
- Standard design certification ... Part 5 is not applicable

Part 5 should include the following:

- ✓ A table listing the titles of documents included herein
- ✓ The applicant's onsite emergency plan ...
- ✓ ...



Application-related Regulatory Topics

C.2 Applications – Regulatory Topics

- **Pre-application Activities**
- **Pre-application Readiness Assessment**
- **Small Modular Reactors with Design-Specific Review Standard**
- **Application Acceptance Review**
- **Application Electronic Submittal**
- **Limited Work Authorization**
- **Request for Additional Information (RAI)**
- **10 CFR Parts 30, 40 & 70 Materials Licenses for COLs**
- **Operational Programs for COLs**
- ***... additional topic(s) – to be determined***



Pre-application Readiness Assessment

Overview

- assessment of readiness to tender an application under Part 52
- type of voluntary pre-application activity – mutually beneficial
- planning and scheduling coordinated with prospective applicant

Guidance

- ... should support the NRC staff's planning, preparations, and conduct of the assessment
- ... should have familiarity with the NRC's Office of New Reactors Office Instruction NRO-REG-104, "Pre-application Readiness Assessment," (ML14079A197) ... publicly available



Appendices: Safety Analysis Reports

Appendix A – Combined License FSAR

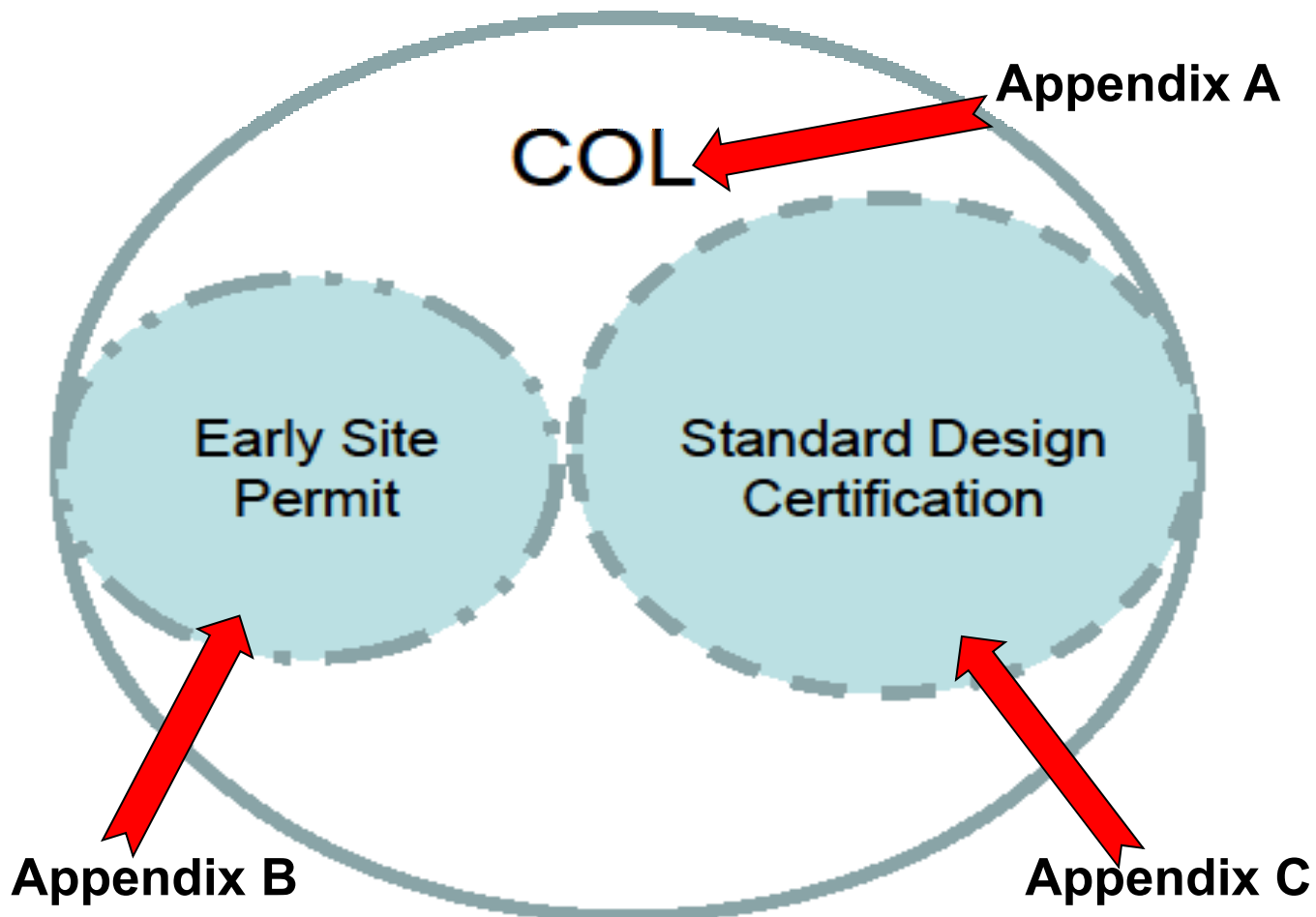
- Detailed guidance for content and format
- Update of RG 1.206 (2007)
- Correlates to Standard Review Plan

Appendix B – Early Site Permit SSAR

Appendix C – Standard Design Certification FSAR

Appendix D – Combined License FSAR for application referencing Standard Design Certification and/or Early Site Permit


Safety Analysis Reports – scope/content



Appendix D = App A modified to reference ESP / DC



PART 2 – Table 2: Safety Analysis Reports – Format & Content

	Combined License [Note 1]	Early Site Permit [Note 2]	Standard Design Certification [Note 3]	COL Referencing ESP and/or DC [Notes 4 & 5]
				
Safety Analysis Report Chapters	FSAR	SSAR	FSAR	FSAR
Chapter 1	✓	✓	✓	✓
Chapter 2	✓	✓	✓	✓
Chapter 3	✓	✓ [[limited scope]]	✓	✓
Chapter 4	✓	Not Applicable	✓	✓
Chapter 5	✓	Not Applicable	✓	✓
Chapter 6	✓	Not Applicable	✓	✓
Chapter 7	✓	Not Applicable	✓	✓
Chapter 8	✓	Not Applicable	✓	✓
...				



SAR Chapter/Section Format

Chapter X

Section X.Y

Content

- Reference to regulatory requirements
- Pointers to related and/or detailed guidance
- Correlate with content of Standard Review Plan
- Terminology
 - ✓ **shall** designates a regulatory requirement
 - ✓ **should** designates a recommendation, not a requirement
 - ✓ **may** designates option/permission, neither a requirement nor a recommendation



Presentation

Draft C.1

Application Format & Content

[ML15057A165](#) - Regulatory Guide 1.206 (Draft Revision)

<http://adamswebsearch2.nrc.gov/webSearch2/view?AccessionNumber=ML15057A165>



C.1 Application Format & Content

- Part 1 – General & Financial Information
- Part 2 – Safety Analysis Report
- Part 3 – Environmental Report
- Part 4 – Technical Specifications
- Part 5 – Emergency Plans
- Part 6 – Security Plans
- Part 7 – Exemptions / Departures / Variances
- Part 8 – License Conditions; ITAAC
- Part 9 – Withheld Information
- Part 10 – Quality Assurance Program Description
- Part 11 – Supplemental Information



C.1 Application Format & Content

Draft Revision February 27, 2015

- Each licensing application prepared for tendering under the provisions of 10 CFR Part 52 shall comply with the requirements set forth, respectively, in Part 52 Subpart A—Early Site Permits, Subpart B—Standard Design Certifications, or Subpart C—Combined Licenses. Each application shall be submitted to the NRC in accordance with §50.30, “Filing of Application; Oath or Affirmation,” and §52.3, “Written Communications.” Furthermore, each application should adhere to the standard format and content identified herein.*
- Application Transmittal Letter
- Application Parts
 - Table 1: Application Format & Content



PART 1 – General & Financial Information

Draft Revision February 27, 2015

- The administrative, general and financial information pertaining to the applicant comprise Part 1 of the application under 10 CFR Part 52. Requirements for this information related to an application for a combined license (COL), standard design certification (DC), and early site permit (ESP) are set forth, respectively, in §52.77, “Contents of Applications; General Information,” §52.46, “Contents of Applications; General Information,” and §52.16, “Contents of Applications; General Information.”*
- Identify information requirements applicable to COL, ESP, DC
- §2.390 – information requested withheld from public disclosure
- Introduction to overall application – organization and structure
- Financial data



PART 2 – Safety Analysis Report

Draft Revision February 27, 2015

- ❑ *The Safety Analysis Report comprises Part 2 of the licensing application under 10 CFR Part 52. Requirements for content of the safety analysis report for a combined license (COL), standard design certification (DC), and early site permit (ESP) are set forth, respectively, in § 52.79(a), § 52.47(a), and § 52.17(a)(1) and (b).*
- ❑ Appendices correlate with Table 2 – detailed guidance regarding the scope, technical content, level of detail, and format for each chapter/section of the safety analysis report – COL, ESP, DC
- ❑ Table 2, Safety Analysis Reports – Format & Content



PART 3 – Environmental Report

Draft Revision February 27, 2015

- ❑ *The environmental report comprises Part 3 of the application under 10 CFR Part 52. Requirements for the environmental report pertaining to combined license (COL), early site permit (ESP), and standard design certification (DC) applications are set forth, respectively, in §52.80(b), §52.17(a)(2), and §52.47(b)(2), which reference the applicable sections of 10 CFR Part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions.”*
- ❑ Identify Part 51 portions applicable to COL, ESP, DC
- ❑ RG 4.2, “Preparation of Environmental Reports for Nuclear Power Stations,” (1976)
- ❑ NUREG-1555, “Standard Review Plans for Environmental Reviews for Nuclear Power Plants
- ❑ Footnote – C.2 topic regarding environmental issue finality



PART 4 – Technical Specifications

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- The technical specifications and the technical specifications bases comprise Part 4 of the application under 10 CFR Part 52. Requirements for technical specifications, and the associated bases, pertaining to a combined license (COL) and standard design certification (DC) are set forth, respectively, in §52.79(a)(30) and §52.47(a)(11), which reference the requirements of §50.36, “Technical specifications,” and §50.36a, “Technical specifications on effluents from nuclear power reactors.” There are no technical specification requirements for an early site permit (ESP) application; therefore, Part 4 is not applicable to an ESP application.*
- Reference Appendices A, C, D – SAR Chapter 16
- Specific guidance for –
 - 1) DC, 2) COL referencing DC, 3) COL not referencing DC



PART 5 – Emergency Plans

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- The emergency plans and relevant supplemental information comprise Part 5 of the licensing application under 10 CFR Part 52. Requirements for emergency plans pertaining to combined license (COL) and early site permit (ESP) applications are set forth, respectively, in §52.79(a)(21) and §52.17(b). Part 5 is not applicable to standard design certification (DC) applications.*
- Contents – all emergency plan information other than SAR Section 13.3
- ITAAC – PART 8
- Footnote – Part 52 emergency plan options for ESP



PART 6 – Security Plans

Draft Revision February 27, 2015

- The security plans and relevant supplemental information comprise Part 6 of the licensing application under 10 CFR Part 52. The security plans, as described in 10 CFR 73.55(c)(1), consist of the Physical Security Plan (PSP), Training and Qualification Plan (T&QP), Safeguards Contingency Plan (SCP) and Cyber Security Plan (CSP). For a combined license (COL) application, the PSP, T&QP, SCP and CSP are submitted to the NRC as required by 10 CFR 52.79(a)(35)(i) and (36)(i), (ii) and (iii).*
- PART 6 not applicable to ESP or DC
- Safeguards Information as defined in §73.2
- PART 6 submitted separately – appropriate packaging
- Contents – include all Safeguards Information (e.g., mitigative strategies - §52.80(d))
- Footnote – ITAAC PART 8 if not Safeguards Information



PART 7 – Exemptions, Departures, Variances

Draft Revision February 27, 2015

- The exemptions, departures and/or variances applicable to a specific application comprise Part 7 of the application under 10 CFR Part 52. Exemptions from Part 52 are addressed in §52.7, “Specific Exemptions,” §52.63, “Finality of standard design certifications,” §52.93, “Exemptions and variances,” and the design certification rule appendices to Part 52. Departures are addressed in §52.63, “Finality of standard design certifications” and the design certification rule appendices to Part 52. Variances are addressed in §52.39, “Finality of early site permit determinations” and §52.93, “Exemptions and variances.”*
- Define and identify applicable requirements
- Reference C.2 topic for guidance
- Contents – specific information to identify and justify



PART 8 – License Conditions; ITAAC

Draft Revision February 27, 2015

- The applicant’s proposed inspections, tests, analyses, and acceptance criteria (ITAAC) and the proposed license conditions, if any, comprise Part 8 of the application under 10 CFR Part 52. The requirements for ITAAC pertaining to an application for a Combined License (COL), standard design certification (DC), and early site permit (ESP) are set forth, respectively, at §52.80(a), §52.47(b)(1), and §52.17(b)(3). Applicant guidance pertaining to ITAAC development and format is provided in Section C.2 of this regulatory guide under the title “Inspections, Tests, Analyses, and Acceptance Criteria.”*
- Reference C.2 topic for guidance
- Identify SAR Section 14.3 – methodology and criteria for ITAAC
- Application-type guidance for COL, ESP, DC
- Contents – all ITAAC (not Safeguards Information)
- Proposed application-specific license / permit conditions



PART 9 – Withheld Information

Draft Revision February 27, 2015

- Part 9 of an application for a combined license (COL), standard design certification (DC), or early site permit (ESP) under 10 CFR Part 52 contains the information considered by the applicant to be sensitive unclassified¹ non-safeguards² information (SUNSI), or other unclassified information required to be withheld from public inspection. As provided at §2.390, “Public Inspections, Exemptions, Requests for Withholding,” application information may be made available to the public at the NRC Web site <http://www.nrc.gov> or at the NRC Public Document Room absent an NRC determination for withholding the information. Accordingly, the applicant should redact from other parts of the application all information requested to be withheld from public disclosure and include such information in Part 9 for review by the NRC.*
- Contents – organized and readily identifiable
- Pointer to requirements of §2.390
- Footnote reminder of Safeguards Information



PART 10 – Quality Assurance Program Description

Draft Revision February 27, 2015

- The quality assurance program description (QAPD) comprises Part 10 of the application under 10 CFR Part 52. Requirements for the QAPD pertaining to a combined license (COL), early site permit (ESP), and design certification (DC) are set forth, respectively, in §52.79(a)(25), §52.17(a)(1)(xi), and §52.47(a)(19).*
- Reference Appendices A, B, C, D – SAR Chapter 17
- Contents – QAPD as separate stand-alone document



PART 11 – Supplemental Information

Draft Revision February 27, 2015

- An application for a combined license (COL), standard design certification (DC), or early site permit (ESP) under 10 CFR Part 52 likely needs to include information supplemental to the standard information identified in Parts 1 through 10. For standardization of applications, Part 11 of the COL, DC, or ESP application contains this supplemental information.*
- Contents – not PART 1 – 10 information
- Example information –
 - Regulatory option – e.g., limited work authorization request
 - Application-specific topic/issue – seismic analysis report, topical report



DISCUSSION

Draft C.1

Application Format & Content



BREAK



Presentation

Draft C.2

Application Regulatory Topics

[ML15071A239](#) - Regulatory Guide 1.206 (Draft) Section C.2

<http://adamswebsearch2.nrc.gov/webSearch2/view?AccessionNumber=ML15071A239>



C.2 Application Regulatory Topics

- C.2.1 Pre-application Activities
- C.2.2 Pre-application Readiness Assessment
- C.2.3 Small Modular Reactors and Design-Specific Review Standards



C.2.1 Pre-application Activities

Draft Revision March 11, 2015

- ❑ *“Pre-application activities” is the term used to encompass all of the communications, correspondence, meetings, document submittals/ reviews, and other interactions that occur between the NRC staff and a prospective applicant prior to the tendering of an application under Part 52. The NRC considers pre-application activities to be mutually beneficial to both the staff and prospective applicants and encourages prospective applicants to initiate interactions early in the application planning process. Pre-application activities, although encouraged and recommended by the NRC, are not required and are voluntary by prospective applicants. This section of the regulatory guide provides an explanatory overview of pre-application activities and provides guidance to prospective applicants for initiating and carrying out the varied activities.*
- ❑ Overview – Commission policy and staff implementation
- ❑ Guidance – staff expectations, meetings, documents, prospective applicant information requests



C.2.2 Pre-application Readiness Assessment

Draft Revision March 11, 2015

- The voluntary pre-application readiness assessment is a unique form of pre-application activity which is intended to inform and benefit both the prospective applicant and the staff. The NRC staff anticipates conducting an assessment of each prospective applicant's readiness to tender an application under Part 52 for a combined license (COL), standard design certification (DC) or early site permit (ESP) approximately six months prior to the planned submittal date. Although voluntary, the readiness assessment was identified in the "New Reactor Licensing Process Lessons Learned Report," April 2013 (ML13059A239), as one of the means of enhancing the quality of applications; and, the NRC staff highly recommends a readiness assessment for each prospective applicant.*
- Overview – purpose and summary
- Guidance – applicant activities and timeframe
- NRO-REG-104 "Pre-application Readiness Assessment"



C.2.3 Small Modular Reactors and Design-Specific Review Standards

Draft Revision March 11, 2015

- ❑ *Prospective applicants have notified the NRC of their intent to submit applications under Part 52 for light-water small modular reactor (SMR) designs. The characteristics of SMRs present several potential policy, technical, and licensing issues for the NRC. However, the NRC staff has identified these issues and developed plans to address them, and is prepared to review applications for all types of light-water SMRs as discussed in SECY-14-0095, “Status of the Office of New Reactors Readiness to Review Small Modular Reactor Applications,” August 2014 (ADAMS Accession No. ML14073A710).*
- ❑ Overview – policy; staff implementation; summary; timeframe
- ❑ Guidance – applicant activities and timeframe
- ❑ NUREG-0800 – Introduction, Part 2, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: Light-Water Small Modular Reactor Edition,” January 2014



DISCUSSION

Draft C.2

Application Regulatory Topics



RG 1.206 Revision
Applications For Nuclear Power Plants

STAKEHOLDER
FEEDBACK



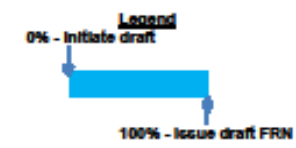
RG 1.206 Revision Draft Schedule

A. Introduction	[pub mtg 09/14]																			
B. Discussion	[pub mtg 09/14]																			

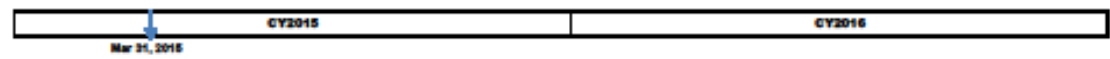
C. Guidance																				
C.1 Applications: Format/Content																				
Part 1 – General & Financial Info	[mtg 03/31]																			
Part 2 – Safety Analysis Report	[mtg 03/31]																			
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Part 10 – Quality Assur Prog Description	[mtg 03/31]																			
Part 11 – Supplemental Information	[mtg 03/31]																			

C.2 Applications: Regulatory Topics																				
1. Pre-application Activities	[mtg 03/31]																			
2. Pre-app Readiness Assessment	[mtg 03/31]																			
3. SMRs and DSRs	[mtg 03/31]																			
4. Application Electronic Submittal																				
5. Application Acceptance Review																				
6. RAI Process																				
7. Operational Programs - COLs																				
8. Parts 30, 40 & 70 Licenses for COLs																				
9. ITAAC																				
10. Change Processes (Tier 1, 2, 2*)																				
11. FSAR Numbering Scheme																				
12. Finalizing Licensing-basis info I&G-011																				
13. Tech Reports Referenced in DC – Tier 2/2*																				
14. Finality Environmental Issues COL - E&P / DC																				
15. IBR COL – DC and E&P																				
16. Limited Work Authorization																				
17 to be determined																				
18 to be determined																				
19 to be determined																				
20 to be determined																				

Appendices																				
Appendix A - COL																				
Appendix B - E&P																				
Appendix C - DC																				
Appendix D - COL IBR DC / E&P																				



FRN Issue Schedule	
Draft Section	FRN Issue Date
A	July 2015
B	July 2015
C.1	June 2015
C.2	December 2015
Appendix A	June 2016
Appendix B	July 2016
Appendix C	July 2016
Appendix D	July 2016
Final RG 1.206 R1 Summer 2017 (estimated)	





MEETING REVIEW



THANK YOU!

**Regulatory Guide 1.206 (revision)
“Applications for Nuclear Power Plants”**

Public Meeting March 31, 2015