



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

PUBLIC MEETING

APPLICATIONS FOR NUCLEAR POWER PLANTS Regulatory Guide 1.206 [Revision]

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

May 3, 2016



Regulatory Guide (RG) 1.206 [Revision]

Public Meeting – Category 3

<http://meetings.nrc.gov/pmns/mtg?do=details&Code=20160581>

Bridge Number: 8883901827, Passcode: 61744

Purpose: Provide input to the NRC staff in the development of guidance on select topics to be included in the revised RG 1.206.

Documents:

- ❑ Agenda – [ML16111B095](#)
- ❑ Draft guidance documents – [ML16118A432](#), [ML16118A388](#), [ML16111B095](#), [ML16118A403](#), [ML16118A411](#), [ML16118A420](#), [ML16119A080](#), [ML16119A019](#)
- ❑ NRC staff presentation

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Regulatory Guide (RG) 1.206 [Revision]

AGENDA

<u>Time</u>	<u>Topic</u>	<u>Speaker</u>
1:00 p.m.	Opening and Introductions	NRC
1:15 p.m.	Overview: Regulatory Guide 1.206 revision	NRC
1:30 p.m.	Guidance: 10 CFR Parts 30, 40 and 70 Materials Licenses for COLs	NRC
2:00 p.m.	Guidance: Applicability of Consensus	NRC
2:15 p.m.	Guidance: COL Application Referencing DC and/or ESP	NRC
2:45 p.m.	Break	ALL
3:00 p.m.	Guidance: Application Review & Requests for Additional Information	NRC
3:30 p.m.	Guidance: Application Acceptance Review	NRC
4:00 p.m.	Guidance: Operational Programs for COLs	NRC
4:30 p.m.	Guidance: Limited Work Authorization	NRC
4:45 p.m.	Review and Action Items	NRC
5:00 p.m.	Adjourn	



Overview – RG 1.206 Revision

- ❑ RG 1.206 *Combined License Applications for Nuclear Power Plants* (2007)
- ❑ New Reactor Licensing Process Lessons Learned Review: 10 CFR 52 (ML13059A239)
- ❑ NRC staff initiated revision – summer 2014
- ❑ Public meetings – stakeholder interactions and feedback
 - ❑ September 2014
<http://meetings.nrc.gov/pmns/mtg?do=details&Code=20141402>
 - ❑ March 2015
<http://meetings.nrc.gov/pmns/mtg?do=details&Code=20150270>
 - ❑ June 2, 2015
<http://meetings.nrc.gov/pmns/mtg?do=details&Code=20150760>
 - ❑ October 25, 2015
<http://meetings.nrc.gov/pmns/mtg?do=details&Code=20151494>
- ❑ Update: revision scope, topics, and level of detail



Revision Scope, Topics, Detail

Sept 2014 – June 2015

- A. INTRODUCTION
- B. DISCUSSION
- C. GUIDANCE
 - C.1 Application Format & Content
 - C.1.1 – C.1.11
 - C.2 Application Regulatory Topics
 - C.2.1 – C.2.n
- Appendices: Safety Analysis Report Format & Content**
 - A. Combined License – Final Safety Analysis Report**
 - B. Early Site Permit – Site Safety Analysis Report**
 - C. Design Certification – FSAR (DCD)**
 - D. Combined License – FSAR if COL references a DC and/or ESP**

Revised: October 2015)

- A. INTRODUCTION
- B. DISCUSSION
- C. GUIDANCE
 - C.1 Application Format & Content
 - C.1.1 – C.1.11
 - C.2 Application Regulatory Topics**
 - C.2.1 – C.2.18**
- D. IMPLEMENTATION










RG 1.206 Revision (October 2015)

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Section C.2: Application Regulatory Topics

- ✓ C.2.1 Preapplication Activities
- ✓ C.2.2 Preapplication Readiness Assessment
- C.2.3 Application Electronic Submittal
-  **C.2.4 Application Acceptance Review**
-  **C.2.5 Application Review & Requests for Additional Information**
-  **C.2.6 COL Application Referencing DC and/or ESP**
- C.2.7 Reference COL (RCOL) and Subsequent COL (SCOL) Applications
- ✓ C.2.8 Design Acceptance Criteria
- C.2.9 Inspections, Tests, Analyses, and Acceptance Criteria
-  **C.2.10 Applicability of Consensus Standards** ✓ C.2.11 COL Action Items & Post-license Commitments
-  **C.2.12 Operational Programs for COLs**
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- C.2.16 Finalizing Licensing-basis Information for COLs
- ✓ C.2.17 Small Modular Reactors and Design-Specific Review Standards
-  **C.2.18 Limited Work Authorization**
 - ✓ discussed at prior public meeting



C.2.13 10 CFR Parts 30, 40 and 70 Materials Licenses for COLs

- ML16119A019**
- NEW topic not addressed in RG 1.206 (2007)**
- Overview
 - Additional licenses under Parts 30, 40, and 70 support facility construction and operation related to source material, byproduct material and special nuclear material (SNM).
 - The NRC staff reviews a COL application for compliance with the requirements of 10 CFR Part 52 as well as Part 50 and other regulations as needed
 - Guidance provides recommended approach for COL applicant to request appropriate authorizations under 10 CFR Parts 30, 40 and 70



C.2.13 10 CFR Parts 30, 40 and 70 Materials Licenses for COLs

- Guidance: The COL applicant should:
 - request authority for activities regulated under 10 CFR Parts 30, 40 and 70 according their needs.
 - request relevant 10 CFR Parts 30, 40 and 70 materials licenses to be incorporated into the COL
 - identify and describe the request for materials licenses in Part 1, “General & Financial Information,”
 - provide the information sufficient to meet the applicable requirements of 10 CFR Parts 30, 40, and 70 in the SAR and other parts of the COL application.



C.2.13 10 CFR Parts 30, 40 and 70 Materials Licenses for COLs

- Guidance: Examples of License conditions provided
- Guidance: Operational programs to support 10 CFR Parts 30, 40, and 70 and associated milestones:
 - Radiation* Protection Programs for COLS
 - Fire Protection Program
 - Security Program including physical security, safeguards contingency programs, training and qualification program
 - Fitness for Duty Program
 - Non-licensed plant staff training program associated with receipt of the radioactive material
 - Special Nuclear Material (SNM) Physical Protection Program



C.2.13 10 CFR Parts 30, 40 and 70 Materials Licenses for COLs

Guidance

- Part 30, 40, and 70 materials and use – detailed information requirements before and after 52.103(g) finding.
- Application information needs for Part 30, 40, and 70 Licenses
- COL applicant may wish to request an exemption associated with SNM Material Control and Accounting (MC&A) Program. Such an exemption allows the same regulations applicable to nuclear reactors licensed under 10 CFR Part 50 regarding MC&A for SNM to be applicable to COLs under 10 CFR Part 52.



C.2.13 10 CFR Parts 30, 40 and 70 Materials Licenses for COLs

Interactive discussion



C.2.10 Applicability of Consensus Standards

- [ML16118A403](#)
- NEW topic not addressed in RG 1.206 (2007)

- National Technology Transfer and Advancement Act of 1995
 - Consult with voluntary consensus standards bodie
 - Participate in development of consensus standards when in public interest and compatible with agency mission, authorities, priorities, and resources
 - Use consensus standards as a means to carry out agency policy objectives or activities unless inconsistent with law or is impractical



C.2.10 Applicability of Consensus Standards

- NRC Management Directive 6.5 describes NRC policy to:
 - Be involved with all stakeholders in regulatory development process
 - Participate in development of consensus standards that support NRC mission
 - Use consensus standards developed by voluntary consensus standards bodies consistent with NTTAA
 - NRC reserves the right to apply conditions on the use of consensus standards



C.2.10 Applicability of Consensus Standards

NRC Use of Standards

- ❑ NRC applies consensus standards in numerous aspects of its regulatory activities:
 - ❑ Incorporate by reference in NRC regulations, such as 10 CFR 50.55a
 - ❑ Accept in regulatory guidance documents, such as regulatory guides, regulatory issue summaries, NUREGs, and standard review plans



C.2.10 Applicability of Consensus Standards

COL Applicant Use of Standards

- ❑ COL applicant may apply consensus standards accepted by the NRC in its COL application
- ❑ If standard not accepted in NRC regulations or regulatory guidance, COL applicant must justify its use in the COL application
- ❑ RG 1.206, Section C.2.6, provides guidance for standards incorporated by reference or applied as general reference in COL application



C.2.10 Applicability of Consensus Standards

Interactive discussion



C.2.6 COL Application Referencing DC and/or ESP

□ **ML16119A019**

□ updates RG 1.206 (2007):

- C.III.1 *Information Needed for a Combined License Application Referencing a Certified Design,*
- C.III.2 *Information Needed for a Combined License Application Referencing a Certified Design and an Early Site Permit, and*
- C.III.6 *Combined License Application Timing*

□ **OVERVIEW**

- A COL application may reference an Early Site Permits or a Design Certification. In both cases, COL applicant acquires the established level of regulatory finality regarding the site as provided by 10 CFR 52.39 and 10 CFR 52.63, respectively.



C.2.6 COL Application Referencing DC and/or ESP

- FSAR and Environmental Report requirements,
 - When referencing a DC, applicant must demonstrate that site characteristics fall within permissible site parameters.
 - When referencing an ESP, applicant must demonstrate that design falls within design parameters.
 - Additional requirements
- GUIDANCE**
 - **Material Referenced**
 - Applications may reference other documents and should indicate whether these are (1) reference materials used to provide supplemental information, or (2) legally binding requirements necessary as part of the design or licensing description or bases.



C.2.6 COL Application Referencing DC and/or ESP

- ❑ FSAR Information: should be consistent with NUREG-0800 format and content and level of detail. and indicate should specify information that is (1) incorporated by reference (2) supplemental to the DC or ESP (e.g., conceptual design information, COL action items), or (3) a departure or variance.
- ❑ DAC: A COL applicant referencing a DC which used DAC should include detailed design information or justify the continued use of DAC in the COL application and provide implementation plans for design completion
- ❑ COL Action Items: DCRs require a COL application referencing the DC to address regulatory matters that the DC vendor deferred to the COL applicant. ESPs require a COL application to address action items pertaining to ESP terms and conditions that were similarly deferred.



C.2.6 COL Application Referencing DC and/or ESP

- ❑ Design Interfaces – DC and ESP: Interface requirements must be met and be verifiable through inspections, tests and analyses.
- ❑ Conceptual Design Information – DC: A DC application must contain a conceptual design for those portions of the nuclear power plant for which the application does not seek certification. COL applicants must provide a complete design for the entire facility
- ❑ Departures from DC: COL applicants are required to provide a report describing any departures. The DCR also requires each applicant to maintain and submit updates to its plant-specific DCD, which includes plant-specific departures..
- ❑ Variances from the ESP: If the FSAR does not demonstrate that design of the facility falls within the site characteristics and design parameters of the ESP, the COL application shall include a request for a variance.





C.2.6 COL Application Referencing DC and/or ESP

- ❑ Variations from the ESP: If the application's FSAR does not demonstrate that design of the facility falls within the site characteristics and design parameters of the ESP, the COL application shall include a request for a variance.
- ❑ Exemptions from the regulations: A departure from the DC may require an exemption. The COL applicant should inform the NRC of its intent to request exemptions
- ❑ Conformance with NUREG-0800: COL applicants must evaluate the facility against the NUREG-0800 revision that is in effect 6 months before the docket date of the application and identify and describe all differences in design features, analytical techniques, and procedural measures proposed for the facility and those corresponding features, techniques, and measures given in the acceptance criteria in the application and review guidance.



C.2.6 COL Application Referencing DC and/or ESP

- ❑ Conformance with Regulatory Guides: DC applicants should provide information addressing conformance with RGs that were in effect 6 months before the submittal date of the DC application. COL applicants who reference a DC are not required to re-address conformance with regulatory guides for the portions of the facility design included in the DC.
- ❑ Completeness and Accuracy of Referenced DC and ESP: Revision of DC and/or ESP is not required, however, applicant shall notify Commission if pf any significant implication for public health and safety or common defense
- ❑ DC and/or ESP applications under review: Part 52 allows a COL applicant, at its own risk, to submit a COL application which references a DC and/or an ESP application that has been docketed and is undergoing review by the NRC staff.



C.2.6 COL Application Referencing DC and/or ESP

Interactive discussion



BREAK

2:45 - 3:00 p.m.



C.2.5 Application Review - Requests for Additional Information

- [ML16118A411](#)
- NEW topic not addressed in RG 1.206 (2007)
- derives from NRO-REG-101 “Processing Requests for Additional Information,” Rev 1, July 2014 (ML14091A802)
- Relevant documents:
 - NRC Office Instruction: NRO-REG-101, “Processing Requests for Additional Information,” Revision 1, July 2014 (Adams ML14091A802)
 - NRC staff pamphlet titled “Request for Additional Information Best Practices,” (ADAMS ML12220A577)
- OVERVIEW**
 - Staff technical review of COL, ESP or DC applications often require additional information in order to complete review. Typical RAIs address clarifications, omissions, and technical acceptability.
 - RAI process is a structured, formal and regulation-based process. Relevant documents above are useful to understand what an applicant can expect.



C.2.5 Application Review - Requests for Additional Information

GUIDANCE

Communications:

- Proactive communications are key to efficient review.
- Technical discussions via phone, meetings, or correspondence are public. Portions of calls and meetings can be closed for sensitive discussions.
- Non-public conference call permitted to clarify impending RAI questions prior to RAI issuance and/or to clarify the intent of issued RAIs.
- Project Manager Role: Primary interface with NRC staff. PM manages all communications.



C.2.5 Application Review - Requests for Additional Information

GUIDANCE

- Applicant should be aware that RAI-related information is available from previous applications
- Electronic processing of RAIs: NRC staff tracks RAIs electronically and uses e-mail as the vehicle to transmit non safeguards information RAIs to applicants. The project manager transmits RAIs in the form of letters or PDF files as attachments to e-mails.
- RAI Responses should:
 - be timely & comprehensive to support schedule
 - Identify if FSAR or other documents need to be revised and if so, provide a mark-up.



C.2.5 Application Review - Requests for Additional Information

Interactive discussion



C.2.4 Application Acceptance Review

- [ML16118A420](#)
- updates RG 1.206 *C.IV.1 Combined License Application Acceptance Review Checklist* (2007)
- references NRO-REG-100, Rev 2, "Acceptance Review Process for Early Site Permit, Design Certification, and Combined License Applications," Dec 18, 2014 (ML14078A152)

- GUIDANCE**
- Acceptance review is for completeness and sufficiency. It does not constitute a detailed review of the application itself. Significant technical deficiency is defined as missing information that results in the staff being unable to evaluate detailed technical information against the acceptance criteria (e.g., NUREG-0800)
- The acceptance review evaluates whether the information is sufficient to support a predictable timeline.



C.2.4 Application Acceptance Review

GUIDANCE

- Results and Docketing Decision : As discussed in NRO-REG-100, the docketing decision has three possible outcomes: 1) application acceptable for docketing; 2) application not acceptable for docketing; or, 3) application acceptable for docketing contingent on specific supplemental information.
- Communication : The applicant should be prepared to respond to any staff-initiated communications in a timely and accurate manner and to proactively initiate communication with the staff when warranted.



C.2.4 Application Acceptance Review

Interactive discussion



C.2.12 Operational Programs for COLs

- ❑ ML16119A080
- ❑ updates RG 1.206 C.IV.4 *Operational Programs* (2007)
- ❑ Key documents:
 - ❑ SECY-05-0197, “Review of Operational Programs in Combined License Applications and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria,” October 28, 2005 (ML052770257)
 - ❑ NUREG 0800 Section 13.4



C.2.12 Operational Programs for COLs

- ❑ Operational program characteristics:
 - ❑ required by NRC regulations;
 - ❑ reviewed by the NRC staff in COL application review; and,
 - ❑ inspected by NRC staff subsequent to license issuance to verify implementation
 - ❑ License conditions apply and format recommended

- ❑ **GUIDANCE**
 - ❑ The NRC staff will use applicable sections of NUREG-0800 to review the COL applicant's identification and descriptions of operational programs and make a reasonable assurance finding
 - ❑ staff will include a license condition on subsequent implementation milestones when specific implementation requirements are not specified in the regulations.



C.2.12 Operational Programs for COLs

□ GUIDANCE

- Program Description and Implementation. COL applicants should:
 - Fully describe each program including implementation and milestones in FSAR in which case ITAAC are not required
 - Address action items from referenced DCD
 - NUREG-0800 identifies operational programs that need to be described in the FSAR, guidance on format and content, and describes technical information that should be included in the FSAR

- Operational Program Options:
 - incorporate by reference the operational program description in the DCD
 - use the operational program approach for additional plant-specific programs



C.2.12 Operational Programs for COLs

Interactive discussion



C.2.18 Limited Work Authorization

- ❑ [ML16118A388](#)
- ❑ updates Final Interim Staff Guidance COL/ESP-ISG-04 on the Definition of Construction and on Limited Work Authorizations, Feb 9, 2009 (ML090060897) which replaced RG 1.206 C.IV.6 *Limited Work Authorization and Site Redress Plan (2007)*
- ❑ **OVERVIEW**
- ❑ LWA process allows COL applicants and applicants for and holders of ESPs to request approval to perform certain limited construction activities before the issuance of a COL.
- ❑ “Construction activities” fall within the NRC’s regulatory authority, because they have a reasonable nexus to radiological health and safety or common defense and security.
- ❑ Other activities are considered “preconstruction” and don’t need an LWA.



C.2.18 Limited Work Authorization

- ❑ **GUIDANCE**
- ❑ Limited Work Authorizations and Combined License: The issuance of an LWA has no bearing on the issuance of the underlying COL.
- ❑ Applications:
 - ❑ A COL applicant may submit a request for an LWA
 - ❑ as part of a complete application under 10 CFR 2.101,;
 - ❑ or as a partial application.
 - ❑ An ESP applicant may include a request for an LWA as part of a complete ESP application in accordance with 10).
 - ❑ A holder of an ESP may submit a request for an LWA as an application for an amendment to the ESP in accordance with 10 CFR 52.39(e).



C.2.18 Limited Work Authorization

❑ GUIDANCE

- Safety Analysis Report: The SSAR or FSAR must demonstrate that the LWA activities will be conducted in accordance with applicable Commission requirements.
- Environmental Report: the environmental report for an LWA shall include elements listed in guidance, e.g.:
 - description of the activities to be conducted under the LWA;
 - statement of the need for the activities;
 - description of the environmental impacts that may reasonably be expected to result from the activities;
 - description of the mitigation measures the applicant proposes to implement;
 - discussion of the reasons for rejecting additional mitigation measures that were considered; and
 - description of the process used to identify new and significant information for an ESP holder or for a site where an EIS has been prepared, but the facility construction was not completed.



C.2.18 Limited Work Authorization

GUIDANCE

Site Redress Plan:

- Primary purpose : to address activities that were authorized under the LWA (excludes any “preconstruction”).
- Describes scope of actions to be taken following the suspension of constructions.
- Is not a substitute for a thorough evaluation of environmental impacts or development of mitigation measures to provide relief from environmental impacts of LWA activities



C.2.18 Limited Work Authorization

Interactive discussion



MEETING FEEDBACK & REVIEW



THANK YOU!

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

Public Meeting May 3, 2016