

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
OFFICE OF NEW REACTORS  
WASHINGTON, DC 20555-0001

July XX, 2014

**NRC REGULATORY ISSUE SUMMARY 2014-xx  
PROCESS FOR SCHEDULING AND ALLOCATING RESOURCES IN FY 2017 FOR  
THE REVIEW OF NEW LICENSING APPLICATIONS FOR LARGE LIGHT-WATER  
REACTORS AND SMALL MODULAR REACTORS**

**ADDRESSEES**

All holders of, or applicants, for an early site permit (ESP), combined license (COL), standard design certification (DC), standard design approval (SDA), or manufacturing license (ML) citing a small modular reactor (SMR) design under Title 10 of the Code of Federal Regulations (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," or all holders of and applicants for a power reactor construction permit (CP) citing an SMR design under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."

This Regulatory Issue Summary (RIS) is intended to include licensees and applicants for both large light-water reactors and small modular reactors. For the purpose of this RIS, SMRs are defined using the International Atomic Energy Agency definition of small- and medium-sized reactors with an electrical output of less than 700 megawatts, including pressurized-water reactors, high-temperature gas-cooled reactors, liquid-metal-cooled reactors, and other SMR technologies.

**INTENT**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this RIS for the following express purposes:

- (1) To assist the NRC in determining fiscal year (FY) 2017 resource and budget needs with respect to future construction-related activities and other anticipated 10 CFR Part 52 and 10 CFR Part 50 licensing and design certification rulemaking actions for both large and small reactors.
- (2) To communicate to stakeholders the agency's process for scheduling its acceptance reviews.
- (3) To inform stakeholders that the NRC has expanded its scheduling process to include all potential 10 CFR Part 50 and Part 52 licensing actions and related activities. These include new license applications, license amendments (LA), topical report submissions, revisions to applications, and license-transfer requests.
- (4) To request that addressees consider submitting their construction plans and schedules for fabrication of large components and modules to the NRC when these plans and schedules are available.

This RIS is intended to promote early communication between the NRC and potential applicants regarding 10 CFR Parts 50 and 52 planned licensing and construction activities. This information will assist the NRC in allocating its FY 2017 resources for acceptance reviews, licensing reviews, and inspection support. This RIS is consistent with the NRC policy on standardization as described in the Statement of Considerations for the original proposed rule in 10 CFR Part 52, "Early Site Permits, Standard Design Certifications and Combined Licenses for Nuclear Power Reactors" (published in the *Federal Register* (FR) at 53 FR 32060 on August 23, 1988). This policy applies to ESP, DC, SDA, ML, COL, LA and all other applications submitted to the NRC. This RIS does not transmit or imply any new or changed requirements or staff positions. Although no specific action or written response is required, submission of the requested information will enable the NRC to more efficiently and effectively plan its licensing and inspection activities.

## **BACKGROUND INFORMATION**

The information gained as a result of this RIS will inform the NRC's scheduling and resource allocation efforts, which the NRC refers to as the design-centered review approach (DCRA). DCRA is the NRC's strategy for reviewing many licensing applications simultaneously. The NRC outlined the DCRA in RIS 2006-06, "New Reactor Standardization Needed to Support the Design Centered Licensing Review Approach," dated May 31, 2006. The DCRA is predicated on a consistent level of standardization in design, licensing, construction, and pre-application planning documents. DCRA requires that the staff conduct a review of a subject area for the referenced application. Once the staff has reached a conclusion about the subject area, that conclusion can be applied to subsequent applications and incorporated by reference, negating the need to re-review subject areas about which the staff has already come to a conclusion. DCRA is used for both large light-water and small modular reactor applications.

Following the issuance of combined licenses for Vogtle Electric Generating Plant, Units 3 and 4, and V.C. Summer, Units 2 and 3, the NRC initiated a lessons learned review to identify potential enhancements to 10 CFR Part 52 licensing process and contribute to more effective and efficient reviews of future applications. After extensive outreach to external and internal stakeholders, in April 2013 the NRC issued the "New Reactor Licensing Process Lessons Learned Report" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13059A239). In the report the NRC identified pre-application interactions and submittal of a complete and high-quality application as important factors in the success of the licensing process and efficiency of the review.

The NRC formulates its budget by projecting two years beyond the current fiscal year in which it is operating. To help the NRC plan its resources appropriately, anyone intending to submit an application for review by the NRC should consider initiating interactions with the staff as early as possible. Early notification of future applicant intent will allow the staff to engage in pre-application activities with the future applicant. These pre-application interactions permit the staff to become familiar with the proposed design and approaches to be used by the potential applicant and to assist the NRC in planning the necessary resources and schedules in preparation for the review once the application is formally submitted.

## **SUMMARY OF ISSUE**

The NRC encourages potential applicants to submit design, licensing, construction, and pre-application plans early. The information provided will allow the NRC to coordinate pre-application activities and take action as appropriate (such as by conducting vendor audits, if

necessary) before submission of the actual application. This will result in more efficient review of the applications.

In SECY-11-0024, "Use of Risk Insights To Enhance the Safety Focus of Small Modular Reactor Reviews," dated May 11, 2011 (ADAMS Accession No. ML111320551), the Commission directed the staff to use the risk-informed and integrated review framework for pre-application and application review activities related to design applications for integral pressurized-water reactors. The NRC staff has taken advantage of lessons learned from recently completed reactor design reviews to expand the scope of pre-application activities. Information submitted in response to the questions related to white papers and technical or topical reports will be especially useful in helping the NRC plan and schedule staff activities during the early stages of these projects.

The advance notification of application submission dates, in conjunction with pre-application activities, will facilitate the likelihood of acceptance reviews requiring no more than 60 calendar days.<sup>1</sup> The staff's goal is to identify and obligate resources 45 days before the date it expects to receive an application. RIS 2010-10, "Process for Scheduling Acceptance Reviews of New Reactor Licensing Applications and Process for Determining Budget Needs for Fiscal Year 2013," dated November 15, 2010, presented the staff's process for scheduling application reviews with respect to expected submission dates and other pertinent information related to the commencement of the staff's review. The process is reiterated below to remind addressees of its steps and to emphasize its importance to the NRC's project planning and budgeting process for 10 CFR Part 52 and Part 50 application reviews.

#### Declaration of the Expected Application Submission Date

The NRC encourages applicants to declare in writing their anticipated application submission date no later than 90 days in advance of the arrival of its submission. This expectation is consistent with the information the staff communicated to the design-centered working groups. Based on this expectation, the following criteria will apply:

- (1) The NRC will schedule its acceptance review to start on the next business day following the future applicant's expected application submission date (month, day, and year).
- (2) When future applicants specify a month rather than a specific date, the NRC will assume that the application will arrive on the last day of the month, and the review will begin on the next business day.

#### Schedule Changes

The NRC will allocate resources to accomplish an acceptance review based on the future applicant's declaration of an expected submission date. Therefore, given the workload, the staff will be unable to readily accommodate a late notice of schedule changes. The following will result from schedule changes:

- (1) If the applicant submits an application early, the start and completion dates for the

<sup>1</sup> As stated in RIS 2007-25, "Combined License Application Acceptance Review Process," dated December 18, 2007, the Commission approved the COL Task Force's recommendation to extend the 30-day acceptance review to a 60-day acceptance review for COL applications. Because DC applications require extensive reviews, the staff is also scheduling a 60-day acceptance review for DCs.

acceptance review will not change. However, if resources are available, the staff will begin its review of the application ahead of the scheduled start date.

- (2) If the applicant is late in submitting its application, the staff will discuss the start date with the applicant based on the availability of staff resources needed to perform the review.
- (3) If a future applicant has projected a submission date beyond FY 2017, the NRC requests that it revisit its estimated projected submission date on an annual basis and inform the NRC, in writing, of the projected application submission date.

#### Advance Issuance of Acceptance Review Schedule and Start of Application Review

The staff will make its schedule for acceptance reviews publicly available approximately 30 days before the projected start date. The NRC will not project any delays in scheduling review completions. There may be a delay between the scheduled completion of the acceptance review and the scheduled start of the application review to accommodate potential minor delays in the acceptance review schedule in a manner that does not result in rescheduling extensive resources. Furthermore, for COL applications, it should be understood that the start of a detailed review depends on docketing and other considerations, such as the applicant's intended construction and operation plans and whether the NRC staff or NRC contractors will conduct the review. The NRC's goal is to focus on those COL applications with plans for construction and operation designated for completion by FY 2023 or sooner if a COL is issued.

#### Electronic submissions

Applicants and licensees are strongly encouraged to test the ability of NRC systems to automatically upload their applications for distribution before actual submission. Failure to pretest this feature could delay the start date of the acceptance review if problems are encountered that prevent the NRC from electronically distributing the application to the technical reviewers.

#### **VOLUNTARY RESPONSE**

The NRC is developing pre-application, licensing, and project plans for its new reactor licensing program. To support this effort, the NRC is seeking new or updated information on schedules for submitting an application for CP, ESP, LA, COL, DC, SDA, and ML applications and on the status of a variety of design-related activities for large and small reactors.

The NRC may share the planned application schedules with other Federal agencies to support its planning efforts on the licensing of new plants.

- If a prospective applicant deems this information proprietary, a request to withhold information from public disclosure in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Request for Withholding," must accompany the information.

RIS 2004-11, "Supporting Information Associated with Requests for Withholding Proprietary Information," dated June 29, 2004, provides additional information about requests for withholding proprietary information from public disclosure. The NRC asks potential applicants to request withholding only for information that they currently treat as proprietary and to provide, where necessary, the proprietary information in designated attachments to their response to this RIS.

If an addressee chooses to provide a voluntary response, the NRC would like to obtain the information within 45 days of the date of this RIS. Respondents should provide answers to the following questions to the best of their ability, providing as much detail as possible.

Questions for all potential/future applicants

- In which month and year do you expect to submit your application?
- What type of permit, license, approval, amendment, or certification (CP, DC, ESP, COL, SDA, ML, LA request, or purchasing-approval request) would you be seeking?

Questions for COL license holders

- How many licensing actions, e.g., license-amendment requests, exemption requests, and relief requests, would you expect to submit to the NRC?

Questions for potential/future nuclear power plant applicants

- Which designs will you be using?
- Where will the plant be located?
- How many units will the plant contain?
- What is the current status of the development of the plant design (i.e., conceptual, preliminary, or final)?
- Have you established a schedule for completing the design? If so, please describe the schedule.
- Will you be part of an organized Design-Center Working Group (DCWG)?
- Who are the other members of the DCWG?
- Who will be the primary point of contact for each DCWG?
- Have you developed protocols to provide coordinated responses to the NRC's requests for additional information with generic applicability to a design center?
- Who will be designated as the reference COL applicant? In what order would you like the NRC to review the subsequent applications?
- Are vendors or consultants assisting you in preparing the application(s)? If so, please describe their roles and responsibilities for the design and licensing activities.

- Have you established a schedule for qualifying fuel and other major systems and components?
- Have you developed computer codes and models to perform design and licensing analyses?
- Have you defined principal design criteria, licensing-basis events, and other fundamental design and licensing relationships?
- Have you established a schedule for completing the design and licensing analyses?
- Have you developed procedures regarding the use of thermal fluidic testing facilities and regarding the use of the results of their tests to validate computer models? Have you established a schedule for the construction of testing facilities? Have you established a schedule for completing the thermal fluidic testing?
- Have you identified system and component suppliers (including fuel suppliers), manufacturing processes, and other major factors that could influence design decisions? Have you established a schedule for identifying suppliers and key contractors?
- Do you have a quality-assurance program?
- Have you developed probabilistic risk assessment (PRA) models needed to support your applications, including the information needed to support risk-informed licensing approaches (for Chapter 19)? Do you plan to use the PRA for any risk-informed applications (e.g., risk-informed technical specifications, risk-informed inservice inspection, risk-informed categorization and treatment, risk-informed inservice testing, etc.)? Do you plan to use the PRA models in the development of the design? At what level will the PRA be prepared, and at what point during the application process will it be submitted?
- Have you developed the plans for the construction and use of a control-room simulator?
- Do you have a staffing plan?
- What is your current staffing level for the execution and testing of the reactor design?
- Do you plan to increase staffing?
- Do you plan to submit white papers or technical and topical reports related to the features of your design or for the resolution of policy or technical issues? Do you have a schedule for submitting such reports?
- Do you plan to request an ESP? If so, will you seek approval of either proposed major features of the emergency plans in accordance with 10 CFR 52.17(b)(2)(i) or with 10 CFR 52.17(b)(2)(ii)?
- Will you use the provisions in Subpart F, "Manufacturing Licenses," of 10 CFR Part 52, instead of, or in combination with, other licensing approaches (e.g., a DC or SDA)?

- What is the desired scope of your possible ML?
- What design or licensing process would address the remainder of the proposed nuclear power plant? For example, would the ML address an essentially complete plant or would it be limited to the primary coolant system that basically comprises the integral reactor vessel and internals?
- Which systems, structures, and components are being fabricated and delivered for the manufacturing, fabrication, and site construction of a completed operational nuclear power plant?
- What is being assembled and constructed on site?

To ensure that the NRC can effectively schedule resources and facilitate the achievement of an acceptance review in 60 calendar days, the staff requests that 90 days before the expected submission date, an applicant or licensee (as applicable) declare the expected submission date (month, day, and year) and the degree of complexity of each of its submittals to the NRC. In addition, the NRC staff is requesting the voluntary submission to the NRC of addressee construction plans and schedules for the fabrication of large components and modules when these are available. Addressees that choose to provide a voluntary response should send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001.

#### **BACKFITTING AND ISSUE-FINALITY DISCUSSION**

This RIS requests the addressees to inform the NRC of scheduling information for the submission of CP, ESP, LA, COL, DC, SDA, and ML applications and the status of design-related activities for large and small reactors. The RIS requires no action or written response. Any action on the part of addressees to submit information in accordance with the request contained in this RIS is strictly voluntary. Therefore, this RIS does not represent backfitting, as defined in 10 CFR 50.109(a)(1), nor is it otherwise inconsistent with any issue finality provision in 10 CFR Part 52. Consequently, the NRC staff did not perform a backfit analysis for this RIS or further address the issue finality criteria in Part 52.

#### **FEDERAL REGISTER NOTIFICATION**

The NRC did not publish a notice of opportunity for public comment on this RIS in the *Federal Register* because it pertains to an administrative aspect of the regulatory process that involves the voluntary submission of information on the part of addressees and does not represent a departure from current regulatory requirements.

#### **CONGRESSIONAL REVIEW ACT**

This RIS is not a rule as defined in the Congressional Review Act (5 U.S.C. §§ 801-808).

#### **PAPERWORK REDUCTION ACT STATEMENT**

This RIS includes information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). The Office of Management and Budget (OMB) approved the existing requirements under OMB approval number 3150-XXXX. The NRC

estimates that the burden to the public for these voluntary information collections will average 12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments on this burden estimate or any other aspects of these information collections (including suggestions for reducing the burden) by mail to the FOIA, Privacy, and Information Collection Branch (T5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov) and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-XXXX), Office of Management and Budget, Washington, DC 20503.

## **PUBLIC PROTECTION NOTIFICATION**

The NRC may neither conduct nor sponsor, and a person is not required to respond to, an information collection request or requirement unless the requesting document displays a currently valid OMB control number.

## **CONTACT**

Please direct any questions about this matter to the technical contact listed below.

Technical Contact: Tanya Ford (DNRL)  
301-415-1194  
E-mail: [Tanya.Ford@nrc.gov](mailto:Tanya.Ford@nrc.gov)

Omid Tabatabai (DARR)  
301-415-6616  
E-mail: [Omid.Tabatabai@nrc.gov](mailto:Omid.Tabatabai@nrc.gov)

Lawrence E. Kokajko, Director  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Michael C. Cheok  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

Note: NRC generic communications may be found on the NRC's public Web site, <http://www.nrc.gov>, under NRC Library/Document Collections.



**PAPERWORK REDUCTION ACT STATEMENT**

This RIS includes information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). The Office of Management and Budget (OMB) approved the existing requirements under OMB approval number 3150-0011. The NRC estimates that the burden to the public for these voluntary information collections will average 12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments on this burden estimate or any other aspects of these information collections (including suggestions for reducing the burden) by mail to the FOIA, Privacy, and Information Collection Branch (T5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov) and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0011), Office of Management and Budget, Washington, DC 20503.

**PUBLIC PROTECTION NOTIFICATION**

The NRC may neither conduct nor sponsor, and a person is not required to respond to, an information collection request or requirement unless the requesting document displays a currently valid OMB control number.

**CONTACT**

Please direct any questions about this matter to the technical contact listed below.

Technical Contact: Tanya Ford (DNRL)  
301-415-1194  
E-mail: [Tanya.Ford@nrc.gov](mailto:Tanya.Ford@nrc.gov)

Omid Tabatabai (DARR)  
301-415-6616  
E-mail: [Omid.Tabatabai@nrc.gov](mailto:Omid.Tabatabai@nrc.gov)

Lawrence E. Kokajko, Director  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Michael C. Cheok  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

Note: NRC generic communications may be found on the NRC’s public Web site, <http://www.nrc.gov>, under NRC Library/Document Collections.

ADAMS Accession Number: **ML14101A166**

\*via email

**MF0957**

OFFICE	NRO/DARR	NRO/DARR	NRO/DARR	NRO/EPB	NRO/DNRL	NRO/DARR	NRO/PMDA*
NAME	RNoory	SMagruder	ABradford	JDixon-Herrity	FAkstulewicz	MMayfield	LOrtiz
DATE	05/05/14	05/12/14	05/13/14	05/14/14	05/22/14	06/09/14	06/13/2014
OFFICE	OIS	OE	OGC	NRR/PGCB/LA	NRR/PGCB/PM	NRR/PGCB/PM	NRR/PGCB/BC
NAME	KBenney	NHilton (GGulla for)	MCarpentier	CHawes	TKeene	AMarkely	SStuchell
DATE	06/24/2014	07/17/2014	07/31/2014	07/31/2014	08/01/2014	08/01/2014	08/01/2014
OFFICE	NRO/DCIP/D	NRR/DPR/DD	NRR/DPR/D				
NAME	MCheok	AMohseni	LKokajko				
DATE	/ /2014	08/04/2014	/ /2014				