

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

April 19, 2016

**NRC REGULATORY ISSUE SUMMARY 2016-04
CLARIFICATION OF 10 CFR 50.46 REPORTING REQUIREMENTS AND
RECENT ISSUES WITH RELATED GUIDANCE NOT APPROVED FOR USE**

ADDRESSEES

All holders of an operating license or construction permit for a nuclear power reactor under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," except those that have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

All holders of and applicants for a power reactor combined license, standard design approval, or manufacturing license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." All applicants for a standard design certification, including such applicants after initial issuance of a design certification rule.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to clarify the reporting requirements under 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors." Specifically, 10 CFR 50.46(a)(3) requires licensees to report to the NRC each change to, or error discovered in an acceptable emergency core cooling system (ECCS) evaluation model, or in its application, and its estimated effect on the limiting ECCS analysis. This RIS requires no action or written response on the part of an addressee.

BACKGROUND INFORMATION

During recent inspection and review activities, the NRC staff noted that certain licensees made facility changes under 10 CFR 50.59, "Changes, tests and experiments," which affected the peak cladding temperature (PCT) calculations for the respective ECCS evaluation models (referred to as evaluation models, for the purposes of this RIS). These licensees did not submit timely reports to the NRC under 10 CFR 50.46(a)(3) regarding the effect of these facility changes on the respective evaluation models. In one instance, installation of a flow orifice changed the high-pressure safety injection system flow rate and resulted in an estimated 309 degree Fahrenheit (°F) increase in the small-break loss of coolant accident (LOCA) PCT. NRC

inspectors at the Fort Calhoun site identified¹ a non-cited violation of 10 CFR 50.46 in this case because the change was not reported to the NRC within the required 30 day timeframe.

The NRC staff has observed, in the above case and others, that some licensees have relied on third-party guidance documents to determine that certain changes to, or errors in, evaluation models, or the applications of such models, were not reportable under 10 CFR 50.46(a)(3). The NRC has not approved for use or endorsed² the positions taken in any third-party document providing guidance for compliance with 10 CFR 50.46(a)(3) reporting requirements. The NRC is concerned that, in relying on such guidance, licensees are not providing timely reporting of all changes or errors to evaluation models, or applications thereof, as required under 10 CFR 50.46(a)(3). By not reporting, licensees impact the ability of the NRC to determine the safety significance of each error or change.

In the example above, the NRC inspectors noted that the licensee used a document authored by the Nuclear Energy Institute (NEI), NEI 07-05, "10 CFR 50.46 Reporting Guidelines,"³ to make the determination that reporting to the NRC was not required. NEI published NEI 07-05 in July 2008 without formally submitting it to the NRC for review. The NRC staff became aware that licensees were using NEI 07-05 during an inspection activity several years later. The first documented inspection finding that was attributed to use of NEI 07-05 occurred in the case mentioned above at Fort Calhoun in 2014. Specific issues with NEI 07-05 regarding 10 CFR 50.46(a)(3) reporting requirements are discussed in detail in this RIS.

Section 50.46(a)(3) of 10 CFR, which establishes reporting requirements with respect to ECCS evaluation models, states that each licensee or applicant must:

...estimate the effect of any change to or error in an acceptable evaluation model or in the application of such a model to determine if the change or error is significant. For this purpose, a significant change or error is one which results in a calculated peak fuel cladding temperature different by more than 50 °F from the temperature calculated for the limiting transient using the last acceptable model, or is a cumulation of changes and errors such that the sum of the absolute magnitudes of the respective temperature changes is greater than 50 °F.

(ii) For each change to or error discovered in an acceptable evaluation model or in the application of such a model that affects the temperature calculation, the [licensee/applicant]...shall report the nature of the change or error and its estimated effect on the limiting ECCS analysis to the Commission at least annually as specified in § 50.4 or § 52.3 of this chapter, as applicable. If the change or error is significant, the applicant or licensee shall provide this report within 30 days and include with the report a proposed schedule for providing a

¹ Hay, Michael, "Fort Calhoun – NRC Integrated Inspection Report Number 05000285/2014002 and Notices of Violations," dated March 19, 2014; available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. [ML14078A666](#).

² With respect to third-party documents, "approved for use" means that the NRC has determined that the matters addressed in the document are technically acceptable and consistent with NRC regulatory requirements, guidance and policy, but the NRC neither supports nor discourages entities from using the positions set forth in the document. "Endorse," by contrast means that in addition to the NRC determination above, the NRC encourages entities to follow the positions in the document. As a general matter, the NRC rarely "endorses" third-party documents as NRC guidance.

³ In May 2015, the NRC staff requested NEI 07-05 to be made publically available for purposes of this RIS. NEI provided an information-only copy in May 2015, which was subsequently made publically available in ADAMS under Accession No. [ML15140A631](#).

reanalysis or taking other action as may be needed to show compliance with § 50.46 requirements...

The “evaluation model,” as used in 10 CFR 50.46, is defined in 10 CFR 50.46(c)(2) as:

...the calculational framework for evaluating the behavior of the reactor system during a postulated loss-of-coolant accident (LOCA). It includes one or more computer programs and all other information necessary for application of the calculational framework to a specific LOCA, such as mathematical models used, assumptions included in the programs, procedure for treating the program input and output information, specification of those portions of analysis not included in computer programs, values of parameters, and all other information necessary to specify the calculational procedure.

The reporting requirements in 10 CFR 50.46(a)(3) were adopted on September 16, 1988⁴ and will be referenced as the 1988 ECCS Rule for the purposes of this RIS. In the statement of considerations (SOC) for the 1988 ECCS Rule, the NRC responded to comments regarding the establishment of a 50°F change in either direction as the threshold for “significant”⁵:

The NRC considers a major error or change in any direction a cause for concern because it raises potential questions about the adequacy of the evaluation model as a whole. Therefore, the NRC requires the reporting of significant errors or changes, in either direction, on a timely basis so that the Commission may make a determination of the safety significance...

Several comments submitted on the proposed rule leading to the 1988 ECCS Rule questioned the necessity to report “minor or inconsequential” changes or errors, (i.e., those changes or errors that are not significant) on an annual basis. In the 1988 ECCS Rule SOC, the NRC responded⁶:

While errors or changes which result in changes in calculated peak clad temperatures of less than 50 °F are not considered to be of immediate concern, the NRC requires cognizance of such changes or corrections since they constitute a deviation from what previously has been reviewed and accepted...

These comment responses from the 1988 ECCS Rule provide a clarification regarding the NRC’s intent when establishing reporting requirements. The 1988 ECCS Rule SOC documented the NRC position that both “minor or inconsequential” and significant changes need to be reported to the Commission.

SUMMARY OF ISSUE

NRC Staff Position

The requirement in 10 CFR 50.46(a)(3) states that each change to, or error in, an acceptable evaluation model, or in the application thereof, that affects the PCT calculation is reportable. Changes to, or errors in, evaluation models, or in the applications thereof, which

⁴ 53 FR 35996; September 16, 1988

⁵ 53 FR 35998; September 16, 1988

⁶ 53 FR 35998; September 16, 1988

result in significant (i.e., 50 °F or more) changes in the PCT calculation must be reported within 30 days, while those that result in non-significant changes must be reported at least annually.

As discussed above, 10 CFR 50.46(c)(2) defines an “evaluation model” as the “calculational framework for evaluating the behavior of the reactor coolant system during a [LOCA].” In addition, 10 CFR 50.46(c)(2) states that the evaluation model includes “all other information necessary for application of the calculational framework to a specific LOCA.” Therefore, the NRC considers changes to, or errors in, an evaluation model, or in the application thereof, to include not only changes to, or errors in, the physical models and model parameters that partially comprise the “calculational framework” (e.g., heat transfer correlations, etc.) but also changes to, or errors in, plant-specific inputs and design parameters (e.g., setpoints, initial conditions, etc.). All of these parameters and inputs are necessary for the analysis of a plant-specific LOCA, as described in 10 CFR 50.46(c)(2).

This NRC staff position has been applied consistently. One example is the NRC response to the public comment from the NEI related to the proposed revision to 10 CFR Part 50, Appendix K, “ECCS Evaluation Models,” in 2000. The NRC stated, in part⁷:

...10 CFR 50.46(a)[(3)](ii) contains an unambiguous requirement that changes to the ECCS evaluation model must be reported at least annually...[O]n the basis of the definition of an evaluation model in § 50.46, the Commission does not accept the distinction made by NEI between “model parameters” and “design parameters.”

Additionally, in the SOC for the 1988 ECCS Rule, the NRC addressed a comment discussing the relationship between 10 CFR 50.46(a)(3) and 10 CFR 50.59 requirements with the following explanation⁸:

One commenter interpreted the use of the words “or in the application of such a model” as requiring reporting when facility changes (already reportable under § 50.59), resulting in model input changes, occur.

The regulatory language referred to is intended to ensure that applications of models to areas not contemplated during initial review of the model do not result in errors by extending a model beyond the range that it was intended. The Commission does not believe that further clarification of this requirement is necessary and has not done so in the final rule.

The NRC declined to change the rule language regarding the requirement to report changes “in the application of [an ECCS evaluation] model” under 10 CFR 50.46(a)(3), even in consideration of the reporting requirements contained in 10 CFR 50.59. Changes to, or errors in, evaluation models, or in the applications thereof, that affect the PCT calculation and are a result of facility changes made under 10 CFR 50.59, must be reported under 10 CFR 50.46(a)(3). The NRC maintains that each change to, or error in, an evaluation model, or in the application thereof, that affects the PCT calculation, is reportable under 10 CFR 50.46(a)(3).

⁷ 65 FR 34919; June 1, 2000

⁸ 53 FR 35998; September 16, 1988

Issues Identified Regarding NEI 07-05

The NRC staff identified three specific issues with NEI 07-05 that may lead licensees to inappropriately determine that certain changes to, or errors in, evaluation models, or in applications thereof, are not reportable under 10 CFR 50.46(a)(3). As noted in the abstract for NEI 07-05, the document was not submitted to the NRC for review. Therefore, the discussions in this RIS are not intended to provide a comprehensive discussion of all potential issues associated with NEI 07-05. While this RIS focuses on specific issues with NEI 07-05 as examples, other, similar, third-party guidance documents may have similar issues.

Three of the issues identified in NEI 07-05 are:

- A. The definition of the term “application” in Section 2.2.2 of NEI 07-05, which is inconsistent with the 1988 ECCS Rule SOC.
- B. The discussion in Section 2.2.11 of NEI 07-05 that suggests that changes to, or errors in, certain types of inputs to evaluation models, or in the applications thereof, are not reportable under 10 CFR 50.46.
- C. The interpretation of the relationship between requirements under 10 CFR 50.46 and 10 CFR 50.59 in NEI 07-05.

Each of these issues is addressed in further detail below.

A. The Definition of “Application”

Although neither 10 CFR 50.2, “Definitions,” nor 10 CFR 50.46 define the word “application,” the NRC has consistently applied a broad, plain-language definition of this term, considering the “application of an evaluation model” to mean the act of putting an evaluation model to use. The NEI 07-05 definition of “application” is narrower than the NRC’s interpretation, and NEI 07-05 states that it is consistent with certain passages in the 1988 ECCS Rule SOC.

While the NEI 07-05 definition of “application” may appear consistent with certain portions of the NRC’s comment response in the 1988 ECCS Rule SOC, it is inconsistent with the general discussion on the reporting requirements in the 1988 ECCS Rule SOC. For example, the 1988 ECCS Rule SOC stated that “the NRC requires cognizance” of both significant and non-significant changes, “since they constitute a deviation from what has previously been reviewed and accepted.” Rather than to define the word “application,” the purpose of the 1988 ECCS Rule SOC statement regarding the application of the evaluation model, discussed in the *NRC Staff Position* section, was to respond to a public comment suggesting that the language, “or in the application of an evaluation model,” was unnecessary due to the 10 CFR 50.59 reporting requirements that existed at the time. The NRC chose to retain the phrase in the rule language and indicated in the 1988 ECCS Rule SOC that further clarification was not needed.

In summary, the NRC’s definition of the term “application” ensures that changes to, or errors in, evaluation models, or in the applications thereof, that affect the PCT calculation, are reported to the NRC. Narrower definitions of the term “application,” as found in NEI 07-05, can lead licensees to erroneously exclude from reporting under 10 CFR 50.46(a)(3) certain changes to, or errors in, evaluation models, or in the applications thereof. By not reporting to the NRC as required under 10 CFR 50.46(a)(3), licensees impact the ability of the NRC to determine the safety significance of each error or change. Such unreported changes or errors may be inconsistent with the NRC’s prior safety review and approval.

B. Discussion and Reportability of “Input Information”

Although neither 10 CFR 50.2 nor 10 CFR 50.46 define the phrase “input information”, such information may include “component lengths and volumes, initial temperatures and pressures, safety injection flows, set points, cycle specific physics parameters, and fuel design parameters,” as discussed in Section 2.1.11 of NEI 07-05. Nevertheless, the distinction between “input information” and other aspects of an evaluation model does not impact the determination of reportability under 10 CFR 50.46(a)(3). The following discussion provides some additional consideration regarding the NRC staff position concerning the treatment of “input information” in the context of 10 CFR 50.46(a)(3) requirements.

As discussed in the *NRC Staff Position*, each change to, or error in, an acceptable evaluation model, or in the application thereof, that affects the PCT calculation, is reportable, including changes to, or errors in, plant-specific inputs that may have resulted from facility changes. Furthermore, an “evaluation model,” as defined in 10 CFR 50.46(c)(2), includes, “all other information necessary for application of the calculational framework to a specific LOCA.” Specifically, 10 CFR 50.46(c)(2) defines the information necessary for the application of the calculational framework to include such information as:

- mathematical models used;
- assumptions included in the programs;
- procedure for treating the program input and output information;
- specification of those portions of analysis not included in computer programs;
- values of parameters; and
- all other information necessary to specify the calculational procedure.

As mentioned above, NEI 07-05 states that “input information” includes “component lengths and volumes, initial temperatures and pressures, safety injection flows, set points, cycle specific physics parameters, and fuel design parameters.” Although the guidance provided in NEI 07-05 suggests that certain changes to, or errors in, these quantities would not be reportable under 10 CFR 50.46(a)(3), these types of changes and errors fall within two categories specifically included in the definition of “evaluation model” provided in 10 CFR 50.46(c)(2). For example, component lengths and volumes constitute information necessary for application of the calculational framework to a specific LOCA. While components are included in computer codes, their specific dimensions, which vary from plant to plant, must be specified in the analysis. In addition, cycle specific physics parameters and fuel design parameters are both values of parameters, as are initial temperatures and pressures, safety injection flows and set points. Since this information is included in the 10 CFR 50.46(c)(2) definition of “evaluation model,” changes to, or errors in, this information, which affect the PCT calculation, must be reported in accordance with 10 CFR 50.46(a)(3).

The NRC recognizes that there may be some overlap between the information identified as part of an evaluation model, as defined in 10 CFR 50.46(c)(2), and the information that would be considered part of the application of an evaluation model. Two examples are discussed below.

First, some plant- and cycle-specific core design parameters, such as peaking factors, are included in the definition of evaluation model, but are also part of the plant-specific application of the evaluation model. This first example indicates some overlap between the evaluation model and its application.

Second, some best-estimate evaluation models that rely on random sampling to perform adjustments to values of parameters, such as correlation coefficients, use a multiplier that varies randomly from case-to-case. The nominal value of the parameter and the sampling range or probability density function from which the parametric multiplier is determined would generally be considered part of the evaluation model, but the specific value that is used in a particular case would be considered part of the application of the evaluation model. In this second example, there is a distinction between information that belongs to the evaluation model, and information that is considered part of the application of the evaluation model.

Changes to any of the parameters identified in the two examples above that affect the PCT calculation would be considered reportable. Changes to the core design parameters, the nominal values of correlation coefficients, or the probability density functions for correlation coefficients would be reportable as changes to the evaluation model. Changes to core design parameters, or a specific value of a correlation coefficient used as part of a plant-specific analysis would be considered reportable as changes to the application of an evaluation model. However, because the reporting requirements are the same for either type of change, neither the specific distinction, nor the occurrence of overlap between the two, is important.

The NRC position, that plant input changes are considered changes to the evaluation model and are reportable under 10 CFR 50.46, is a long-standing position that the NRC has previously stated. In 1999, NEI offered a definition of “input information” in the context of 10 CFR 50.46(a)(3), similar to the NEI 07-05 discussion that is described above, in a letter⁹ to the NRC. In the letter, NEI suggested that the NRC add language in the *Federal Register* stating that, “[c]hanges resulting from plant specific design parameter changes, including cycle-to-cycle reload fuel parameters, are not reportable under 10 CFR 50.46(a)(3).” The NRC responded to the letter in 2000 stating, in part, that “...the Commission does not agree with NEI on this point... 10 CFR 50.46(a)(3)(ii) contains an unambiguous requirement that changes to the evaluation model must be reported at least annually...”

In summary, the NRC’s interpretation of the reportability of “input information” ensures that changes to, or errors in, evaluation models or applications thereof, which affect the PCT calculation, are reported to the NRC. Licensees who adopt the view that plant-specific “input information” is not reportable, as described in NEI 07-05, may erroneously exclude certain changes to, or errors in, evaluation models or applications thereof from reporting under 10 CFR 50.46(a)(3). By not reporting to the NRC, licensees impact the ability of the NRC to determine the safety significance of each error or change, which may be inconsistent with the NRC’s prior safety review and approval.

C. The Interpretation of the Relationship Between 10 CFR 50.46 and 10 CFR 50.59

Several sections of NEI 07-05, among other third-party guidance documents, interpret the relationship between 10 CFR 50.46 and 10 CFR 50.59. The NRC has endorsed only one guidance document, NEI 96-07, “Guidelines for 10 CFR 50.59 Implementation,”¹⁰ regarding

⁹ Modeen, David J., Nuclear Energy Institute, letter to U.S. Nuclear Regulatory Commission, “Transmittal of Comments on Proposed Change to 10 CFR 50, *Emergency Core Cooling System Evaluation Models* (64 *Fed. Reg.* 53270) Request for Comments,” Project Number 689, December 15, 1999. Available in ADAMS at Accession No. [ML003671779](#).

¹⁰ Available in ADAMS at Accession No. [ML003771157](#). The NRC endorsed NEI 96-07 through Regulatory Guide (RG) 1.187, “Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments,” dated November 2000; RG 1.187 is available publicly for download at <http://www.nrc.gov/reading-rm/doc-collections/reg-guides/power-reactors/rg/>.

10 CFR 50.59. The discussion below provides some consideration regarding the relationship between the requirements of 10 CFR 50.46 and 10 CFR 50.59.

Regarding the applicability of 10 CFR 50.46(a)(3) reporting requirements, the NRC stated, in the 1988 ECCS Rule SOC, that the NRC requires cognizance of all changes or errors. The NRC did not distinguish between changes to, or errors in, an evaluation model, or in the application of such a model, when discussing the need for licensees to report significant as well as minor changes or errors. The NRC also stated in the 1988 ECCS Rule SOC that by not providing timely reporting of all changes to, or errors in, evaluation models, or in the applications thereof, which result in changes to the PCT calculation of more than 50°F, licensees impact the ability of the NRC to determine the safety significance of each error or change. These considerations also apply to changes or error corrections to an evaluation model, or its application, that reflect facility changes accomplished in accordance with 10 CFR 50.59.

Based on the nature and the effect of a particular change to an evaluation model, both 10 CFR 50.46 and 10 CFR 50.59 should be independently applied on their own merits. Specifically, 10 CFR 50.59(c)(4) states:

The provisions in this section do not apply to changes to the facility or procedures when the applicable regulations establish more specific criteria for accomplishing such changes.

Since 10 CFR 50.46 establishes more specific criteria for estimating the effects of and reporting changes to, or errors in, evaluation models, or in the applications thereof, 10 CFR 50.59 reporting requirements do not apply to changes made to evaluation models. Note, however, that facility changes must be screened and evaluated according to 10 CFR 50.59 criteria, while associated changes to, or errors in, the evaluation model, or in applications thereof, that affect the PCT calculation, are subject to 10 CFR 50.46 reporting requirements.

Passages within NEI 07-05 suggest that changes made under 10 CFR 50.59 may not be reportable under 10 CFR 50.46(a)(3). As published, this guidance can lead to an interpretation of the relationship between 10 CFR 50.46 and 10 CFR 50.59 that is inconsistent with the reporting requirements of both rules. Reporting to the NRC enables the NRC to determine the safety significance of each change to, or error in, an evaluation model, or in its application.

CONCLUSION

If a change is made to an evaluation model, or the application thereof, 10 CFR 50.46(a)(3)(i) requires licensees to estimate the effect of the change on the PCT calculation for the limiting transient. If the estimated change to the calculated PCT is significant (i.e., different by more than 50°F), then the licensee is required to submit a report to the NRC describing the nature of the change and its estimated effect on the limiting ECCS analysis within 30 days. If the estimated change to the PCT is not significant, then the licensee is required to include such a change in an annual report to the NRC as required by regulations in 10 CFR 50.46. Reporting this information to the NRC enables the NRC to determine the safety significance of each error or change to an evaluation model or its application.

An “evaluation model” is defined in 10 CFR 50.46(c)(2) as the “calculational framework for evaluating the behavior of the reactor coolant system during a [LOCA]” and includes “all other information necessary for application of the calculational framework to a specific LOCA.” Based on the “evaluation model” definition provided in 10 CFR 50.46(c)(2), the NRC considers

changes to, or errors in, evaluation models, or in the applications thereof, to include not only changes to, or errors in, the physical models and model parameters that partially comprise the “calculational framework” but also changes to, or errors in, plant-specific inputs and design parameters.

The process under 10 CFR 50.46 for making changes to an evaluation model (or its application) and reporting such changes is separate from the process in 10 CFR 50.59 for making changes to a facility as described in the final safety analysis report (as updated). Based on the nature and the effect of a particular change to an evaluation model, both 10 CFR 50.46 and 10 CFR 50.59 should be independently applied on their own merits.

As discussed above, the guidance provided in NEI 07-05 may lead licensees to inappropriately determine that certain changes to, or errors in, evaluation models, or in applications thereof, are not reportable under 10 CFR 50.46(a)(3). Licensees that rely on third-party guidance documents, such as NEI 07-05, which the NRC has neither approved for use, nor endorsed, do so at their own risk.

BACKFITTING AND ISSUE FINALITY DISCUSSION

This RIS discusses reporting requirements under 10 CFR 50.46 applicable to operating license holders (including combined license holders) with respect to ECCS analyses and modeling.

This RIS does not set forth any new or changed NRC requirement, or new or changed guidance or position on compliance with any existing NRC regulatory requirement. The RIS does not require any action by any addressee, nor does this RIS request or suggest that any addressee submit information to the NRC, which is not already required to be submitted by existing NRC requirements under 10 CFR 50.46 or any other NRC regulation (e.g., 10 CFR Part 21). For these reasons, this RIS does not represent backfitting as defined in 10 CFR 50.109(a)(1) and is not otherwise inconsistent with any issue finality provision in 10 CFR Part 52. Therefore, the NRC did not prepare a backfit analysis for this RIS or further address the issue finality criteria in 10 CFR Part 52.

FEDERAL REGISTER NOTIFICATION

The NRC published a notice of opportunity for public comment on this RIS in the *Federal Register* (80 FR 44160) on July 24, 2015. The NRC staff received comments from nine commenters. The NRC staff considered all comments, which resulted in minor clarifications to the RIS. The evaluation of these comments, and the resulting changes to the RIS are discussed in a publicly available memorandum.¹¹

CONGRESSIONAL REVIEW ACT

The NRC has determined that this RIS is not a rule as designated by the Congressional Review Act (5 U.S.C. §§ 801–808) and, therefore, is not subject to the Act.

¹¹ Available in ADAMS under Accession No. [ML15271A055](#).

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not contain new or amended information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, approval number 3150-0011.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

CONTACT

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

/RA/

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

/RA/

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

Technical Contacts: Benjamin T. Parks, NRR/DSS/SNPB
301-415-0979
E-mail: Benjamin.Parks@nrc.gov

Reed A. Anzalone, NRR/DSS/SNPB
301-415-2988
E-mail: Reed.Anzalone@nrc.gov

Jennifer M. Whitman, NRR/DSS/SRXB
301-415-3253
E-mail: Jennifer.Whitman@nrc.gov

Project Manager: Alexandra E. Popova, NRR/DPR/PGCB
301-415-2876
E-mail: Alexandra.Popova@nrc.gov

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not contain new or amended information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, approval number 3150-0011.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

CONTACT

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

/RA/

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

/RA/

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

Technical Contacts: Benjamin T. Parks, NRR/DSS/SNPB
301-415-0979
E-mail: Benjamin.Parks@nrc.gov

Reed A. Anzalone, NRR/DSS/SNPB
301-415-2988
E-mail: Reed.Anzalone@nrc.gov

Jennifer M. Whitman, NRR/DSS/SRXB
301-415-3253
E-mail: Jennifer.Whitman@nrc.gov

Project Manager: Alexandra E. Popova, NRR/DPR/PGCB
301-415-2876
E-mail: Alexandra.Popova@nrc.gov

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

ADAMS Accession No.: ML15324A296

*via e-mail

TAC MF5565

OFFICE	NRR/DSS/SNPB*	NRR/DSS/SRXB*	NRO/DSRA/SRSB*	NRR/DORL*	NRR/DSS*	NRO/DSRA*	NRO/DCIP
NAME	JDean	EOesterle (A)	RKaras (A)	GWilson	RTaylor	JMonninger	MCheok
DATE	03/16/2016	03/17/2016	01/15/2016	04/14/2015	04/15/2015	04/02/2015	04/17/2015
OFFICE	OE/EB*	NRR/PMDA*	OIS*	NRR/DPR/PGCB	OGC*	NRR/DPR/PGCB	NRR/DPR/PGCB*
NAME	GFigueroa	LHill	TDonnell	ELee	GMizuno	ELee	APopova
DATE	03/25/2015	03/20/2015	04/02/2015	01/21/2016	03/18/2016	04/05/2016	04/05/2016
OFFICE	NRR/DPR/PGCB*	NRO/DCIP	NRR/DPR	NRR/DPR			
NAME	SStuchell	MCheok	AMohseni	LKokajko			
DATE	03/31/2016	4/7/16	4/18/16	4/19/16			

OFFICIAL RECORD COPY