



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 31, 2016

MEMORANDUM TO: Harold K. Chernoff, Branch Chief
Operating Experience Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Eric M. Thomas, Senior Reactor Systems Engineer **/RA/**
Operating Experience Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: RESPONSE TO PUBLIC COMMENTS ON DRAFT
REGULATORY ISSUE SUMMARY 20YY-XX, "DISPOSITION OF
INFORMATION RELATED TO THE TIME PERIOD THAT
SAFETY-RELATED STRUCTURES, SYSTEMS AND
COMPONENTS ARE INSTALLED"

NRC staff published a notice of opportunity for public comment on the subject regulatory issue summary (RIS) in the *Federal Register* (81 FR 30571) on May 17, 2016. The staff received comments from David Lochbaum, Union of Concerned Scientists¹; an anonymous commenter²; Roy Mathew, an employee of the U.S. Nuclear Regulatory Commission³; and Scott Bauer, Nuclear Energy Institute⁴. Additional comments after the public comment period were submitted by Gary Davant, Entergy Nuclear Operations⁵, and Mr. Bauer⁶.

The NRC staff appreciates the time and effort that commenters spent providing their feedback on this RIS. Each comment was reviewed and considered for incorporation into the

CONTACT: Eric M. Thomas, NRR/DIRS/IOEB
301-415-6772

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML16181A077

² ADAMS Accession No. ML16188A270

³ ADAMS Accession No. ML16196A235

⁴ ADAMS Accession No. ML16203A151

⁵ ADAMS Accession No. ML16216A146

⁶ ADAMS Accession No. ML16279A190

H. Chernoff

- 2 -

RIS. The staff will incorporate a number of the recommended changes described in the comments. The enclosure provides the staff's disposition of all comments.

Enclosure:
As stated

CONTACT: Eric M. Thomas, NRR/DIRS/IOEB
301-415-6772

H. Chernoff

- 2 -

RIS. The staff will incorporate a number of the recommended changes described in the comments. The enclosure provides the staff's disposition of all comments.

Enclosure:
As stated

CONTACT: Eric M. Thomas, NRR/DIRS/IOEB
301-415-6772

ADAMS Accession No.: ML16274A121

OFFICE	NRR/DIRS/IOEB	NRR/DIRS/IOEB	NRR/DIRS/IOEB
NAME	EThomas	HChernoff	EThomas
DATE	10 / 31 /2016	10/31/2016	10/31/2016

OFFICIAL RECORD COPY

**NUCLEAR REGULATORY COMMISSION STAFF RESOLUTION OF PUBLIC COMMENTS
ON DRAFT REGULATORY ISSUE SUMMARY 20YY-XX
“DISPOSITION OF INFORMATION RELATED TO THE TIME PERIOD THAT SAFETY-
RELATED STRUCTURES, SYSTEMS AND COMPONENTS ARE INSTALLED”**

The purpose of this enclosure is to document the U.S. Nuclear Regulatory Commission’s (NRC’s) disposition of the comments received on the subject draft regulatory issue summary (RIS) (Agencywide Documents Access Management System (ADAMS) Accession No. ML16111B121). Comments on draft RIS are available electronically at the NRC’s electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this page, the public can gain entry into ADAMS, which provides text and image files of NRC’s public documents. Comments were received from the following individuals or groups:

Letter No.	ADAMS Accession No.	Commenter Affiliation	Commenter Name
1	ML16181A077	Union of Concerned Scientists	David Lochbaum
2	ML16188A270	Self	Anonymous
3	ML16196A235	Self (Nuclear Regulatory Commission employee)	Roy Mathew
4	ML16203A151	Nuclear Energy Institute	Scott Bauer
5	ML16216A146	Entergy Nuclear Operations	Gary Davant
6	ML16279A190	Nuclear Energy Institute	Scott Bauer

The NRC assigned each of the six submittals a number. Each submittal contains one or more comments. For each comment, the NRC has provided either a summary of the comment or a direct quote of the comment or parts of the comment, followed by the staff’s response. Each comment is referred to below by its associated letter number followed by a sequential number.

Comments

Comment No. 1-1:

“The RIS is addressed to holders of and applicants for reactor operating licenses and owners of permanently shutdown reactors with irradiated fuel remaining in spent fuel pools. It is not addressed to owners of permanently shutdown reactors with all irradiated fuel transferred into dry storage, but these owners should receive this information. In September 2014, the NRC issued a final [rule] on Continued Storage of Spent Nuclear Fuel (see Federal Register notice at <https://www.gpo.gov/fdsys/pkg/FR-2014-09-19/pdf/2014-22215.pdf>). The final rule contemplates three timeframes: a period of up to 60 years after reactor shut down during which irradiated fuel may remain in spent fuel pools, an additional 100 year period during which all irradiated fuel may remain in dry storage, and a third period of infinite duration during which irradiated fuel may remain in dry storage. Because these periods (especially the infinite one) are likely longer than ALL time periods that safety-related structures, system, and components (SSC) housing and monitoring the irradiated fuel in dry storage are designed and licensed to remain functional, the information in the RIS seems equally relevant to these licensees, too.”

NRC Response:

Agree: The staff will add “All holders of and applicants for an independent spent fuel storage installation license under 10 CFR Part 72” to the list of addressees.

ENCLOSURE

Comment No. 1-2:

“The first paragraph under the INTENT section on page one states that the “RIS addresses instances where a licensee becomes aware of credible information pertaining to the time period that a safety-related SSC is installed...” By itself, that statement is vague regarding of both what constitutes “becoming aware” and “credible information.” The appendix [helps] convey the NRC’s expectations for awareness while the footnote helps put “credible information” in better context. Additional text fleshing out these terms and the NRC’s expectations would not hurt, but the draft RIS as-is seems to strike a reasonable balance between making the point and belaboring it.”

NRC Response:

Agree, in part: The staff agrees that the draft RIS as proposed, strikes a reasonable balance between making the point of what constitutes “becoming aware” and what type of “information” is involved. However, the staff will remove the word “credible” from its description of information of concern in the RIS in response to comment 4-5. Additionally, the staff will remove the appendix from the RIS in response to comment 4-4.

Comment 2-1:

“Regulatory issue summaries are used to

- (1) communicate and clarify NRC technical or policy positions on regulatory matters that have not been communicated to are not broadly understood by the nuclear industry,*
- (2) inform the nuclear industry of opportunities for regulatory relief,*
- (3) communicate previous NRC endorsement of industry guidance on technical or regulatory matters,*
- (4) provide guidance to applicants and licensees on the scope and detail of information that should be provided in licensing applications to facilitate NRC review, and*
- (5) request the voluntary participation of the nuclear industry in NRC-sponsored pilot programs or the voluntary submittal of information which will assist the NRC in the performance of its functions.*

“It doesn’t seem appropriate to use forceful language such as “(NRC) is issuing this regulatory issue summary (RIS) to reiterate existing requirements” or “this RIS reinforces the obligations of nuclear power plant licensees” when neither reiteration nor reinforcement are contained in the RIS purpose statement from NRC.gov.”

NRC Response:

Disagree: The staff concluded that the language in the Intent section is appropriate. The RIS communicates and clarifies NRC technical or policy positions on regulatory matters.

Comment 3-1:

“Page 1, “INTENT” section states: “This RIS addresses instances where a licensee becomes aware of credible information pertaining to the time period that a safety-related SSC is installed

that may impact its ability to perform its safety-related function(s)." This statement implies that the licensee needs to take action only if they become aware of credible information pertaining to the time period that a safety-related SSC is installed that may impact its ability to perform its safety-related function(s). Vendors or manufacturers of equipment used in nuclear power plants typically do not provide [this] type of information other than Part 21 or warranty issues. This statement should be corrected because the current NRC regulations (such as 10 CFR 50.55a, 10 CFR 50.34, plant Technical Specifications, GDCs, and 10 CFR 50.54) require licensees to maintain design basis¹ documentation (analyses and [test] data indicating equipment qualification under operating environment (mild)) to show that safety-related equipment can perform their intended design functions for the entire period of operation (i.e. 40 or 60, or 80)."

NRC Response:

Disagree: Contrary to the statement in this comment, vendor communications with licensees are not limited to Part 21 reports and warranty issues. Other examples of communications between vendors/manufacturers and licensees include, but are not limited to technical bulletins, service information letters, and service advisory letters. The RIS reiterates existing program requirements that licensees address information in accordance with their NRC-approved QA program, operability/functionality process, and corrective action program.

Comment 3-2:

"In addition to the above, this RIS "INTENT" section should be revised to clarify that the obligation of [a] nuclear power plant licensee is also to update the design bases documentation (analyses and tests data) required to demonstrate that safety-related equipment can perform their intended design functions for the entire period of operation in accordance with current licensing bases requirements."

NRC Response:

Disagree: The RIS reiterates existing program requirements that licensees address information in accordance with their NRC-approved QA program, operability/functionality process, and corrective action program. Existing regulatory requirements do not support the balance of this comment in its entirety.

Comment 3-3:

"...Licensees must reevaluate the design life and service life of equipment originally analyzed via initial licensing in order to verify the capability of equipment to perform [its] safety function in accordance with NRC requirements (GDC 4 or equivalent principal design criteria in FSAR, 10 CFR 50.54, and 10 CFR 50.55a). ..."

NRC Response:

¹ Design bases is defined in 10 CFR 50.2, "Definitions," to mean, "that information which identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design. These values may be (1) restraints derived from generally accepted "state of the art" practices for achieving functional goals, or (2) requirements derived from analysis (based on calculation and/or experiments) of the effects of a postulated accident for which a structure, system, or component must meet its functional goals."

Neither agree nor disagree: This statement does not contain a specific comment regarding the content of the RIS. Existing regulatory requirements do not support this comment in its entirety.

Comment 4-1:

“Though many of NEI’s previous comments have been addressed by the NRC, NEI remains concerned that NRC positions in the draft RIS prioritize vendor information over the many other inputs that are taken into consideration (i.e., internal and external operating experience, plant specific application and environment, surveillance and inspection results, trend analyses, Electric Power Research Institute (EPRI) preventive maintenance database information, etc.) by licensees in their preventive maintenance program.”

NRC Response:

Disagree: The RIS discusses vendor information as a source of operating experience that should be screened and dispositioned in accordance with existing programs. These discussions do not place a higher significance on this source of operating experience information over other sources.

Comment 4-2:

“It still appears from the discussion of 10 CFR 50.2 design basis information that the NRC considers vendor replacement or refurbishment information as such when in actuality very little if any of this vendor information is design basis or supporting design basis information. The draft RIS needs to maintain the clear distinction between the design process which derives the functional requirements for structures, systems and components (SSC), and the operational phase including maintenance, which ensures that these functional requirements are met by establishing maintenance schedules in accordance with quality assurance programs.”

NRC Response:

Disagree: The RIS states the already established regulatory positions [for 10 CFR 50.2 design basis information] and provides references to these positions. The RIS does not state or infer that the NRC considers vendor repair or refurbishment information to be 10 CFR 50.2 design basis information. The RIS reiterates existing requirements related to dispositioning information pertaining to the capability of safety-related structures, systems and components to perform their safety-related functions. This information can come from a variety of sources including the design process and operational experience. Design information, in conjunction with maintenance and operational performance history, should be used to ensure functional requirements are met.

Comment 4-3:

“Licensees’ quality assurance programs provide for the development of preventive maintenance programs based on several inputs and existing regulatory positions (e.g., Generic Letter 82-09, Environmental Qualification of Safety-Related Electrical Equipment, and Section 3.11 of NUREG-0800, Standard Review Plan). These inputs and regulatory positions address how vendor recommendations and other inputs are considered, including the use of engineering

judgment, to determine appropriate replacement or refurbishment frequencies. NEI believes that the existing regulatory framework adequately addresses how various sources of information are to be considered in the development of preventive maintenance programs. Therefore, the draft RIS needs to affirm the existing guidance which will ensure a correct interpretation of the role of vendor recommendations.”

NRC Response:

Disagree: The RIS does not discuss the development of environmental qualification, preventive maintenance or QA programs. The RIS focuses on the use of existing programs to properly screen and disposition operating experience information. The information referenced by NEI is taken from a section of the enclosure to Generic Letter (GL) 82-09, but it is not quoted in its entirety. In its entirety, this section of GL 82-09 contains the following information, which lists three programs to demonstrate and maintain environmental qualification in a mild environment:

“4. MILD ENVIRONMENT

- Q. Can periodic surveillance, testing and maintenance programs adequately demonstrate qualification of electrical equipment in mild environments?
- A. For existing equipment located in mild environments, equipment environmental qualification can be adequately demonstrated and maintained by the use of the following three programs:
1. A periodic maintenance, inspection, and/or replacement program based on sound engineering practice and updated as required by the results of an equipment surveillance program;
 2. A periodic testing program to verify operability of safety-related equipment within its performance specification requirements (system level testing of the type typically required by the plant technical specifications may be used); and
 3. An equipment surveillance program which includes periodic inspections, analysis of equipment and component failures, and a review of the results of preventive maintenance and periodic testing programs.

For replacement and new equipment, the licensee must also establish and document the environmental design basis for the equipment locations. The purchase specifications must reflect those design basis environmental conditions that are bounding for all applicable equipment locations.”

The NEI referenced section of the current Standard Review Plan is silent on the use or treatment of vendor recommendations.

Comment 4-4:

“NEI is also concerned that the draft RIS is establishing new guidance for entry conditions into the operability/functionality determination process which would create a conflict with existing operability guidance and is not consistent with the intended scope of a RIS. Comment 2 in Attachment 1 provides additional information in this regard and the scenarios in Attachment 2 have been modified to reflect how the operability/functionality determination process would be applied to the hypothetical scenarios in accordance with existing guidance. While the scenarios

have proved useful in the development of the RIS as they have aided in a more thorough understanding of the issues, NEI does not believe they should be issued as part of the RIS.”

NRC Response:

Agree, in part: The discussion in the draft RIS regarding operability began following an assumed decision regarding applicability. A discussion of the applicability/screening process will be included in the RIS to clarify this point. The staff will also remove the scenarios without objection, since they were originally included based on NEI’s comments from the public meeting in January, 2016.

Comment 4-5:

“NEI agrees with the concept of “credible information” in that the right information needs to be reviewed for its impact on preventive maintenance strategies. However, the definition is too broad and, as such, would be subject to widely varying interpretations. Furthermore, reliance needs to be placed on existing guidance as a RIS is not an appropriate vehicle to define a new term. The industry recommends that applicable sections of the draft RIS be revised to replace “credible information” with NRC generic communications, operating experience, and vendor service advisories that have a valid technical basis and are related to applications in the nuclear power industry. Assessment of newly discovered information should only take place when it is technically-based and has the potential to invalidate the assumptions of an existing maintenance strategy.”

NRC Response:

Agree: Use of the term “credible information” was intended to convey that it is understood that licensees go through an applicability/screening process to ensure that information is applicable to their facility before needing to address it. Additional information discussing the applicability/screening process for the specific plant design and licensing basis will be added to the RIS as discussed in the NRC responses to comments 4-4 and 4-6, removing the need to define or use the term “credible information.”

Comment 4-6:

“The RIS, and especially the scenarios, imply that the operability process is immediately entered upon receipt of vendor service advisories, NRC generic communications, and operating experience. The draft RIS should be revised to clearly illustrate the need to screen this information for applicability and impact. When new information is received, it is first screened for applicability to the specific plant design and licensing basis and to determine if it contains technically-based information that has the potential to impact the inputs to an existing maintenance strategy. That review determines whether a condition adverse to quality exists. If so, the issue is entered into the corrective action program. Operability/functionality is assessed as part of this program. Differences between vendor maintenance recommendations and a licensee’s documented maintenance strategy need to be understood and reconciled but do not, as a matter of course, result in an SSC being in a degraded or non-conforming condition. The draft RIS should reflect the existing process and should not establish new guidance for this process. The proposed industry changes to the scenarios include how the issues would be screened through the existing processes.”

NRC Response:

Agree, in part: As described in the response to comment 4-4, the examples will be removed from the RIS per NEI's request. The staff agrees that the typical process for determining applicability includes screening for applicability to the specific plant design and licensing basis and determining if the information contains information that has the potential to impact the plant. The assessment of potential impact is not limited to "the inputs to an existing maintenance strategy." After completion of the screening/applicability determination, further processing will be completed in accordance with the licensee's NRC-approved QA program, operability/functionality determination process, and corrective action program.

Comment 5-1:

On July 26, 2016, Entergy Operations, Inc. and Entergy Nuclear Operations, Inc. (Entergy) submitted a letter to the NRC stating that Entergy "[has] worked with the Nuclear Energy Institute (NEI) and supports NEI's comments regarding the draft RIS, which were transmitted to you via letter dated July 18, 2016."

NRC Response:

Neither agree nor disagree: This statement does not contain any additional specific comments regarding the content of the RIS and was received after the close of the comment period for the draft RIS.

Comment 6-1:

On September 29, 2016, NEI emailed a marked up copy of the draft RIS to NRC staff. In its email, NEI indicated that the markup reflected what NEI thought the RIS should look like with its comments incorporated. NEI also reiterated its previous comment that the examples should be removed from the RIS.

NRC Response:

Neither agree nor disagree: The NRC received this feedback from NEI after the comment period for the draft RIS closed. NRC staff reviewed the markup of the RIS but will not be providing specific feedback on suggested changes.