

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555-0001

July 19, 2001

**NRC REGULATORY ISSUE SUMMARY 2001-14:
POSITION ON REPORTABILITY REQUIREMENTS FOR
REACTOR CORE ISOLATION COOLING SYSTEM FAILURE**

ADDRESSEES

All holders of boiling-water-reactor (BWR) operating licenses.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to notify BWR addressees of its position regarding the reportability of reactor core isolation cooling (RCIC) system failure.

BACKGROUND INFORMATION

In 10 CFR Part 50, paragraphs 50.72(b)(3)(v)⁽¹⁾ and 50.73(a)(2)(v), require reports for any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to shut down the reactor and maintain it in a safe shutdown condition, remove residual heat, control the release of radioactive material, or mitigate the consequences of an accident. The 1983 Statements of Considerations (SOCs) for Sections 50.72 and 50.73, stated that there were a few single-train systems that performed safety functions (e.g., the high pressure coolant injection system in BWRs). For such systems, loss of the single train would prevent the fulfillment of the safety function of that system and, therefore, must be reported even though the plant technical specifications (TSs) may allow such a condition to exist for a specified limited length of time.

Specifically, with regard to the RCIC system, from 1984 until late 2000, the NRC's reporting guidelines in NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73,"⁽²⁾ stated that if the plant's safety analysis considered RCIC as a system needed to remove residual heat (e.g., it is included in the Technical Specifications) then its failure is reportable under the criterion; otherwise, it is not reportable under this section of the rule.

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⁽¹⁾ This paragraph number was 50.72(b)(2)(iii) prior to January 23, 2001.

⁽²⁾ From 1984 until January 1998, the document that contained the pertinent guidance was NUREG-1022, Supplement No. 1, "Licensee Event Report, Description of System and Guidelines for Reporting."

On October 25, 2000, NRC published a final rule that modified the event reporting requirements in Sections 50.72 and 50.73, effective January 23, 2001. The requirement to report "any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems" was modified by removing the word "alone." In Section 50.72, the phrase "at the time of discovery" was inserted in place of the word "alone." Accordingly, some system failures that were previously reportable under both Section 50.72 and Section 50.73 are now reportable only under Section 50.73. Otherwise, these rule changes do not affect the reportability considerations discussed above.

In October 2000, the NRC also published Revision 2 of NUREG-1022. In Revision 2, the RCIC system reporting guidance was modified by substituting the phrase "mitigate a rod ejection accident" for the phrase "remove residual heat." The reporting guidance now reads "If the plant's safety analysis considered RCIC as a system needed to mitigate a rod ejection accident (e.g., it is included in the Technical Specifications) then its failure is reportable under this criterion; otherwise, it is not reportable under this section of the rule."

The NRC staff has recently reconsidered this position and concluded that reporting of RCIC system failure or inoperability is required by the relevant regulations only for plants whose final safety analysis report explicitly credits the RCIC system for mitigating the consequences of a rod ejection accident. This interpretation avoids the implication that RCIC system failures are reportable simply because the RCIC system is included in the plant's TSs. In other words, the parenthetical phrase "e.g., it is included in the Technical Specifications" could be deleted from the current reporting guidelines in NUREG-1022. Additional details regarding this position may be found in a memorandum issued from NRC Headquarters to Region III.⁽³⁾

It should be noted that the above discussion relates only to the reportability of a RCIC system failure or inoperability in accordance with paragraphs 50.72(b)(3)(v) and 50.73(a)(2)(v). A RCIC system failure or inoperability may well be reportable under other reporting criteria. For example, if the RCIC system is inoperable longer than allowed by the TSs, then the event is reportable under paragraph 50.73(a)(2)(i)(B). If a RCIC system failure occurs in connection with an actuation that is not part of a preplanned sequence, then it is reportable under paragraphs 50.72(b)(3)(iv)(A) and/or 50.73(a)(2)(iv)(A).

It should also be noted that the above discussion does not pertain to whether RCIC system failure or inoperability should count as a safety system functional failure (SSFF) in the reactor oversight process. That is a separate question. [As of this writing, the NRC staff has not reached a final position on whether a RCIC system failure should count as a SSFF, even if the failure is not reportable under paragraphs 50.72(b)(3)(v) and 50.73(a)(2)(v)].

It should be noted that one of the questions to be considered in the program to risk-inform 10 CFR Part 50, is whether there should be a new requirement to report failures of systems that are not safety-related but have high risk significance. If such a requirement is adopted at some time in the future, RCIC failures might be included.

⁽³⁾NRC memorandum from Suzanne C. Black to Geoffrey E. Grant titled "Task Interface Agreement (TIA) 99-030 From Region III Regarding the Reportability Of Reactor Core Isolation Cooling (RCIC) System Failures" dated March 15, 2001 (Accession No. ML010740339).

SUMMARY OF ISSUE

The NRC staff has concluded that RCIC system failures are not reportable in accordance with paragraphs 50.72(b)(3)(v) and 50.73(a)(2)(v) simply because the RCIC system is included in the plant's TSs. They are reportable if the plant's safety analysis considered the RCIC system a system needed to mitigate a rod ejection accident.

BACKFIT DISCUSSION

This RIS requires no action or written response and is, therefore, not a backfit as defined in 10 CFR 50.109. Consequently, the staff did not perform a backfit analysis.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment was not published in the *Federal Register* because this RIS is informational and pertains to an issue that was open to public comment during the rulemaking to revise 10 CFR 50.72 and 50.73.

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not request the collection of any new information.

This RIS requires no specific action or written response. If you have any questions about this matter, please contact the person listed below or the Office of Nuclear Reactor Regulation project manager for your nuclear power plant.

/RA/

David B. Matthews, Director
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Contact: Dennis Allison, NRR
301-415-1178
E-mail: dpa@nrc.gov

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LIST OF RECENTLY ISSUED
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Regulatory Issue Summary No.	Subject	Date of Issuance	Issued to
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2001-12	Nonconservatism in Pressurized Water Reactor Spent Fuel Storage Pool Reactivity Equivalencing Calculations	05/18/2001	All holders of operating licenses for pressurized water reactors
2001-11	Voluntary Submission of Performance Indicator Data	05/18/2001	All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel
2001-10	Revisions to Staff Guidance on Notices of Enforcement Discretion	04/02/2001	All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel
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