

November 19, 2004

MEMORANDUM TO: Catherine Haney, Program Director
Policy and Rulemaking Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

FROM: Eileen M. McKenna, Section Chief **IRA**
Policy and Rulemaking Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF NOVEMBER 18, 2004, MEETING WITH NUCLEAR
ENERGY INSTITUTE (NEI) AND OTHER STAKEHOLDERS ON RISK-
INFORMED 10 CFR 50.46 LOCA BREAK SIZE REGULATORY GUIDE
DEVELOPMENT AND CONSIDERATIONS FOR SELECTION OF
TRANSITION BREAK SIZE

On November 18, Nuclear Regulatory Commission (NRC) staff met with representatives of the Nuclear Energy Institute, industry, and others in a public meeting at NRC headquarters in Rockville, Maryland. Meeting attendees are identified in Attachment 1. The presentation viewgraphs presented at the meeting by industry are in Attachment 2 (ADAMS Accession No. ML043280487).

With respect to development of the regulatory guide, Tim Collins noted that the staff plans to develop guidance with a target date of June 2005, with the intention that the guidance would be available at the time the final rule is completed. One of the purposes of this meeting was to determine the level of interest from the industry in working with the staff on the guidance. Tony Pietrangelo from NEI stated that the industry does wish to help develop such guidance, particularly for those areas needed to obtain approval to use 5046a. In particular, this relates to the provision in the draft proposed rule that a licensee demonstrate the ability to mitigate (core remains amenable to cooling) a break up to the double-ended break of the largest pipe (albeit with more realistic assumptions and analyses). With respect to additional guidance, industry representatives thought that the needs in this area would be best determined when specific applications of the rule are identified. The participants agreed to establish working arrangements once the proposed rule is approved, so that efforts will be most efficient.

The second major topic was considerations with respect to selection of the transition break size (that is, the dividing break size between using current ECCS requirements and using the revised ECCS requirements). The staff stated that following the ACRS meeting, we had thought further about the selection of the transition break size, and were currently thinking of stating the requirement as "the largest connected piping to the reactor coolant system" rather than being in terms of a specific pipe size (e.g., 14 inches for PWRs), as in the draft rule language posted on Rule-forum.

Industry representatives stated the view that the break size should be an 8 inch nominal pipe size. They stated several reasons why this size was considered to include consideration of uncertainties, and why there were safety benefits to be achieved from a smaller break size.

The specific details are shown in the handout material. A specific application discussed was a change to reduce requirements for containment spray, thus, preserving more water for core cooling. It was noted that the possible benefits would vary from plant to plant due to design differences. The staff encouraged the industry to better quantify the benefits or margins that might be realized with a different break size as part of their comments on the rule.

Industry representatives asked whether the staff's proposal for largest attached piping meant an area of twice the pipe size (flow out of both ends of a rupture), and if this same size was to be applied to all other possible LOCA locations. The staff said this was the intention.

NEI also raised some other questions about the draft rule, such as why the staff included in the rule all of the details associated with RG 1.174, and why greater reliance was not placed on existing processes such as §50.59. The staff noted the "inconsequential" changes proposal and that existing §50.59 is not compatible with risk metrics such as core damage frequency as acceptance criteria. The issue of applicability of the rule to certified light water reactor designs was raised; the staff noted that there were no technical reasons why a similar approach could not be used for designs such as ABWR or System 80+, but the design certification rule process would require other rulemaking to implement.

The staff noted that a meeting is planned with the Advisory Committee on Reactor Safeguards to discuss a draft NUREG on use of the expert opinion elicitation process for estimating LOCA frequency as a function of break size. The meeting is scheduled for December 2, 2004. Industry representatives indicated an interest in presenting their position on the selection of the transition break size at that meeting as well. The ACRS staff representative at the meeting indicated that he would allot time for an industry presentation.

Having completed the discussion the staff asked for public comments or questions. After answering the public questions, the staff adjourned the meeting.

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ADAMS Accession #:Memo ML043270640 Package: ML043270641
Attachment 2: Accession No.: ML043280487

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| OFFICE | RPRP | NRR |
| NAME | EMcKenna | TCollins |
| DATE | 11/19/2004 | 11/19/2004 |

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**Attendance for Meeting on Risk-Informed LOCA
Break Size Selection and RG Development
November 18, 2004 - NRC Headquarters**

| Name | Organization |
|---------------------|---------------|
| Brian Sheron | NRC/NRR |
| Suzanne Black | NRC/NRR/DSSA |
| Gene Imbro | NRC/NRR/DE |
| Eileen McKenna | NRC/NRR/DRIP |
| Tim Collins | NRC/NRR |
| Tony Pietrangelo | NEI |
| John Butler | NEI |
| Wayne Harrison | STPNOC/WOG |
| Mitch Nissley | Westinghouse |
| Bruce Bishop | Westinghouse |
| Carolyn Fairbanks | NRC/RES |
| Michael Knapik | McGraw-Hill |
| Gary Hammer | NRC/NRR/DE |
| Ken Chang | NRC/NRR/DRIP |
| Bert Dunn | Framatome ANP |
| Bob Harvey | Duke Power |
| Deanne Raleigh | LIS Scientech |
| Louis Quintana | GE Energy |
| Jared Wermeil | NRC/NRR/DSSA |
| Tony Browning | NMC-BWROG |
| Rick Hill | GE |
| Bob Jacquith | Westinghouse |
| Mark Rubin | NRC/NRR/DSSA |
| Dave McIntyre | NRC |
| Hossein Hamzehee | NRC/RES |

| Name | Organization |
|---------------------|---------------|
| Nancy Chapman | SERCH/Bechtel |
| Stephen Dinsmore | NRC/NRR/DSSA |
| Jack Stringfellow | SNC |
| Mike Snodderly | NRC/ACRS |
| Christopher Jackson | NRC/OCM |
| Dave Bajumpaa | Dominion |
| Michael Johnson | NRC/NRR/DSSA |
| Ralph Landry | NRC/NRR/DSSA |
| Charles Ader | NRC/RES |
| | |

cc: Via email

Mr. John Butler, NEI
jcb@nei.org

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