

August 7, 2000

MEMORANDUM TO: Stuart A. Richards, Director  
Project Directorate IV & Decommissioning  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

FROM: Jack Cushing, Project Manager, Section 2 */RA/*  
Project Directorate IV & Decommissioning  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MEETING HELD ON JULY 25, 2000, WITH  
COMBUSTION ENGINEERING NUCLEAR POWER TO DISCUSS RISK  
INFORMING SAFETY ANALYSES IN THE FINAL SAFETY ANALYSIS  
REPORT

On July 25, 2000, the staff held a public meeting with Combustion Engineering Nuclear Power, LLC (CENP) at the NRC headquarters in Rockville, Maryland. The purpose of the meeting was for CENP to present their plans for risk informing the safety analyses that are usually a part of Chapters 6 and 15 (sometimes Chapter 14) of FSARs, and to assess NRC's receptiveness to such an approach. A Combustion Engineering Owners Group (CEOG) project is envisioned wherein the proposed methodology will be documented in a topical report, presented for NRC's review, and followed by plant-specific implementations.

Attached is a list of the meeting participants. The meeting slides presented by CENP are located in the ADAMS main library under accession number ML003735192.

Mr. Molnar of CENP, commenced the meeting by presenting the new Westinghouse/CENP organizational chart and discussing the integration of CENP and Westinghouse Electric Company. Mr. Molnar then stated that the risk-informed safety analysis project (RISA) is intended to work within the existing regulations and is not meant to duplicate the current effort to risk-inform 10 CFR Part 50.

Mr. Jaquith of CENP, presented the background and the technical approach expected to be followed. The background relates to work that was done in the early 1980s by the NRC, the American Nuclear Society, and CENP. Regulatory Guide (RG) 1.70, Revision 2, "Standard Format and Content of SARs for Nuclear Power Plants," issued in September 1975, suggests an approach for applicants to follow in planning and performing safety analyses. The heart of the approach is that the specific events that are analyzed are categorized based on their frequency of occurrence, and that each frequency category has appropriate acceptance criteria consistent with its frequency. Additionally, an American National Standards Institute standard (ANS-51.1) was published in 1983, (re-affirmed in 1988) that puts forth a specific methodology. Also, from 1981–1983, CENP submitted the FSAR for System 80 which the Chapter 15 safety

analyses were performed in accordance with the methodology suggested in RG 1.70. However, in order to avoid a substantial delay in the review, CENP subsequently withdrew the risk-informed FSAR and replaced it with a conventional deterministic analysis. Going forward, a CEOG RISA effort is planned where a topical report describing detailed RISA methodology will be submitted for the NRC's review and approval, followed by a plant specific implementation for all or selected transients.

Mr. Molnar discussed the benefits to be derived from the RISA. Safety should be enhanced by putting accident analyses in their proper perspective, and focussing licensee, NRC, and vendor resources on important (i.e., risk significant) accident analyses. RISA provides an opportunity for increasing operational margins. Benefits are seen for Shutdown Margin, Containment Margin, Environmental Qualification temperature profiles, etc. Mr. Molnar also proposed a licensing schedule where the Topical Report would be submitted for review in June of 2001, with an NRC review by March of 2002.

Mr. Reinhart and Mr. Wermiel of the NRC staff, encouraged CENP and the CEOG to proceed with the planned RISA approach. The schedule proposed is reasonable and will allow the staff time to factor the review into their resource planning.

Mr. Wermiel said the staff will look into ANS 51.1 to see what the NRC's involvement was in its development or review, since the staff is encouraged to make use of existing consensus standards. He also suggested that the topical report should address how the methodology will be applied, guidelines for the user, and the benefits. A meeting (at least one) will be needed before the topical report is submitted.

Mr. Orr of the NRC staff, cautioned to make sure not to lose needed code conservatism when reducing the conservatism in the given inputs.

Mr. Reinhart pointed out that the topical report should address the five principles of integrated decision making in Reg. Guide 1.174. He also suggested that the effort should consider the work of the Tech Spec Task Force.

Having completed the scheduled business, the meeting was adjourned.

Project No. 692

Attachment: List of Attendees

cc w/att: See next page

analyses were performed in accordance with the methodology suggested in RG 1.70. However, in order to avoid a substantial delay in the review, CENP subsequently withdrew the risk-informed FSAR and replaced it with a conventional deterministic analysis. Going forward, a CEOG RISA effort is planned where a topical report describing detailed RISA methodology will be submitted for the NRC's review and approval, followed by a plant specific implementation for all or selected transients.

Mr. Molnar discussed the benefits to be derived from the RISA. Safety should be enhanced by putting accident analyses in their proper perspective, and focussing licensee, NRC, and vendor resources on important (i.e., risk significant) accident analyses. RISA provides an opportunity for increasing operational margins. Benefits are seen for Shutdown Margin, Containment Margin, Environmental Qualification temperature profiles, etc. Mr. Molnar also proposed a licensing schedule where the Topical Report would be submitted for review in June of 2001, with an NRC review by March of 2002.

Mr. Reinhart and Mr. Wermiel of the NRC staff, encouraged CENP and the CEOG to proceed with the planned RISA approach. The schedule proposed is reasonable and will allow the staff time to factor the review into their resource planning.

Mr. Wermiel said the staff will look into ANS 51.1 to see what the NRC's involvement was in its development or review, since the staff is encouraged to make use of existing consensus standards. He also suggested that the topical report should address how the methodology will be applied, guidelines for the user, and the benefits. A meeting (at least one) will be needed before the topical report is submitted.

Mr. Orr of the NRC staff, cautioned to make sure not to lose needed code conservatism when reducing the conservatism in the given inputs.

Mr. Reinhart pointed out that the topical report should address the five principles of integrated decision making in Reg. Guide 1.174. He also suggested that the effort should consider the work of the Tech Spec Task Force.

Having completed the scheduled business, the meeting was adjourned.

Project No. 692

Attachment: List of Attendees

cc w/att: See next page

DISTRIBUTION:

PUBLIC

PDIV-2 Reading

JZwolinski/SBlack (RidsNrrDlpm)

SRichards (RidsNrrDlpmLpdiv)

JCushing (RidsNrrPMJCushing)

EPeyton (RidsNrrLAEPeyton)

RidsOgcMailCenter

RidsAcrsAcnwMailCenter

JWermeil

FR Reinhart

NSaltos

FOrr

AKuritzky

**Accession No. ML003738414**

OFFICE	PDIV-2/PM	PDIV-2/LA	PDIV-2/SC
NAME	JCushing:lcc	EPeyton	SDembek
DATE	08/07/00	08/07/00	08/07/00

CE Owners Group

Project No. 692

cc:

Mr. Gordon C. Bischoff, Project Director  
CE Owners Group  
Combustion Engineering Nuclear Power  
M.S. 9615-1932  
2000 Day Hill Road  
Post Office Box 500  
Windsor, CT 06095

Mr. Ralph Phelps, Chairman  
CE Owners Group  
Omaha Public Power District  
P.O. Box 399  
Ft. Calhoun, NE 68023-0399

Mr. Charles B. Brinkman, Manager  
Washington Operations  
Combustion Engineering Nuclear Power  
12300 Twinbrook Parkway, Suite 330  
Rockville, MD 20852

Virgil Paggen  
CE Nuclear Power LLC  
M. S. 9383-1922  
2000 Day Hill Road  
Windsor, CT 06095-1922

LIST OF ATTENDEES

MEETING WITH COMBUSTION ENGINEERING NUCLEAR POWER (CENP)

JULY 25, 2000

**CENP**

Charles Molnar  
Robert Jaquith

**OTHERS**

Owen Thomsen, Southern California Edison  
Charles Willbanks, NUS Information Services  
Nancy Chapman, Bechtel SERCH

**NRC**

Jared Wermiel  
Jack Cushing  
Frank Orr  
Mark Reinhart  
Nick Saltos  
Alan Kuritzky