January 22, 2004

MEMORANDUM TO: Joseph G. Giitter, Chief

Special Projects and Inspection Branch

Division of Fuel Cycle Safety

and Safeguards

Office of Nuclear Material Safety

and Safeguards

Thru: Brian W. Smith, Chief /RA/

**Special Projects Section** 

Special Projects and Inspection Branch

Division of Fuel Cycle Safety and Safeguards, NMSS

FROM: David Brown, Health Physicist /RA/

**Special Projects Section** 

Special Projects and Inspection Branch

Division of Fuel Cycle Safety and Safeguards, NMSS

SUBJECT: JANUARY 13, 2004, SUMMARY OF PHONE CALL: REVISIONS TO

NOVEMBER 7, 2003, QUESTIONS ON CRITICALITY SAFETY OPEN ITEM NCS-4 FOR THE MIXED OXIDE FUEL FABRICATION FACILITY

This memorandum is to document a phone call between the U.S. Nuclear Regulatory

Commission (NRC) staff and staff of Duke Cogema Stone & Webster (DCS). DCS staff

included Ken Ashe, Bill Hennesey, Chuck Henkle, Tom Doering, Bob Foster and Bill Peters.

NRC staff were Andrew Persinko, David Brown, Margaret Chatterton and Chris Tripp.

Docket No.: 70-3098

Attachment: Summary of Phone Call

cc: P. Hastings, DCS

L. Zeller, BREDL G. Carroll, GANE

J. Johnson, DOE H. Porter, SCDHEC J. Conway, DNFSB

D. Curran, GANE

D. Silverman, DCS

## Summary of Phone Call, January 13, 2004, 9:00 am

Prior to this phone call, DCS had requested additional clarification on which of the staff's 18 questions in the November 7, 2003, phone call summary are still outstanding. DCS anticipated that some of the November 7, 2003, questions may have been resolved during a December 17-19, 2003, in-office review by staff at DCS Headquarters in Charlotte, NC. The results of this in-office review were documented by staff in an in-office review summary dated January 9, 2004.

DCS requested additional clarification on the 18 questions before it provides a written response to NRC. Therefore, the purpose of the January 13, 2004, phone call was to provide the additional clarification that DCS requested. The information in this memorandum documents the clarifying information provided by the staff.

As a result of the staff's review since November 2003, the portion of NCS-4 pertaining to area of applicability AOA(3) is now closed. Staff finds that the additional information provided by DCS and the staff's independent analysis supports its proposed subcritical margin for AOA(3), and that the proposed additional margin for AOA(3) is acceptable.

In addition, as a result of staff's review of information attached to the January 9, 2004, in-office review summary and staff's independent analyses, several of the 18 questions in the November 7, 2003, phone call summary are no longer relevant. Specifically, DCS no longer needs to respond to the following questions: 10, 11, 13, and 17.

DCS should still respond to the following questions in full: 1, 6, 8, 12, and 18.

DCS should also respond to Question 16, except that the concern over the use of the LATTICECELL vs. INFHOMMEDIUM cross section treatment option is closed. The response should still state what other code options (such as use of albedos and biasing) are considered validated and why this is so.

DCS should also respond to the following questions <u>only if</u> the questions concern information in the DCS Validation Report that will be part of DCS's justification for inclusion of the PCM002 and PU-8 benchmark sets in the code validation for AOA(4): 2, 3, 4, 5, 7, 9, 14, and 15. If answers to the questions would not be part of DCS's justification, then it will be sufficient to state this in its response letter.

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H. Porter, SCDHEC

Docket: 70-3098

Attachment: Summary of Phone Call

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