

February 6, 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: Andrew Persinko, Sr. Nuclear Engineer **/RA/**
Special Projects Section
Special Projects and Inspection Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

SUBJECT: JANUARY 13, 2004, AND FEBRUARY 4, 2004, SUMMARY OF PHONE
CALLS WITH THE APPLICANT: CHEMICAL SAFETY OPEN ITEMS
FOR THE MIXED OXIDE (MOX) FUEL FABRICATION FACILITY

On January 13, 2004, and February 4, 2004, staff of the U.S. Nuclear Regulatory Commission (NRC) discussed several of the chemical safety open items with Duke Cogema Stone & Webster (DCS) via phone. The open items are associated with the Revised Construction Authorization Request (CAR) for the Mixed Oxide Fuel Fabrication Facility (MFFF) submitted by DCS on October 30, 2002. The purpose of this memorandum is to document statements and requests that were made by NRC staff and the applicant regarding the open items during the phone call. The statements are provided as an Attachment.

Docket No. 70-3098

Attachment: Phone Call Summary

cc: P. Hastings, DCS
L. Zeller, BREDL
G. Carroll, GANE

J. Conway, DNFSB
D. Curran, GANE
D. Silverman, DCS

J. Johnson, DOE
H. Porter, SCDHEC

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OFC	SPIB		SPIB		SPIB	
NAME	APersinko		LGross		BSmith	
DATE	2 / 05 /04		2 / 06 /04		2 / 06 /04	

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PHONE CALL SUMMARY

The following clarifying information was provided during phone calls on January 13, 2004, between K. Ashe, DCS, and A. Persinko, NRC, and by a phone call on February 4, 2004, between K. Ashe, DCS; P. Hastings, DCS; A. Persinko, NRC; and D. Brown, NRC.

Emergency Control Room Air Conditioning System (Open Item CS-10)

In response to an NRC inquiry, DCS clarified that there would be two independent emergency control rooms at the proposed MFFF. If, for example, the operators were in Emergency Control Room (ECR) A and chemicals were detected at the air inlet, then the ECR A system would go into recirculation mode while ECR B would continue drawing outside air from its independent and separately located air inlet. If chemicals were subsequently detected at the ECR B air inlet (that is, if chemicals were detected at both air inlets), then an alarm would sound in ECR A letting the operators know that both ECRs were in recirculation mode. At that point, operators would be expected to don Self Contained Breathing Apparatuses (SCBA). The SCBAs are not Principal Structures, Systems and Components.

Prevention of Red Oil Explosions (Open Item CS-1)

In response to an NRC inquiry, DCS stated that controls at the La Hague reprocessing plant in France limit the temperature of the internal evaporator wall to 135 C and rely on an efficient diluent washing of the solvent, and periodic flushout of organic materials. Controls at the La Hague plant also include samples to control the quantity of organic degraded materials.

Titanium Fires in Dissolution Electrolyzers (Open Item AP-3)

In response to an NRC inquiry, DCS is reconsidering a portion of its October 10, 2003, design basis description (see DCS letter DCS-NRC-000162, ADAMS accession number ML032880402) for the prevention of titanium fires in electrolyzers. DCS anticipates that it will revise its previous design basis description and submit the revision to the NRC for review.

Attachment