

# **CNWRA** *A center of excellence in earth sciences and engineering™*

A Division of Southwest Research Institute®  
6220 Culebra Road • San Antonio, Texas, U.S.A. 78228-5166  
(210) 522-5160 • Fax (210) 522-5155

June 10, 2005  
Contract No. NRC-02-02-012  
Account Nos. 20.06002.01.222

U.S. Nuclear Regulatory Commission  
ATTN: Mrs. Deborah A. DeMarco  
Office of Nuclear Material Safety and Safeguards  
Division of High-Level Waste Repository Safety  
Two White Flint North  
11545 Rockville Pike  
Mail Stop T7-J8  
Washington, DC 20555

Subject: Programmatic Review of Abstract for the 2005 Geological Society of America  
Annual Meeting

Dear Mrs. DeMarco:

The enclosed abstract and form 390A are being submitted for NRC programmatic review. This abstract is planned to be presented as an invited talk at the 2005 Geological Society of America Annual Meeting to be held on October 16-19, 2005, in Salt Lake City, Utah. The title of the abstract is

**Thermodynamics of Hydrothermal Uranyl Mineral Formation at Nopal I**  
by William Murphy, California State University at Chico

This talk will present alternative interpretations of information from the Nopal I analog, addressing alteration of primary uraninite to a series of secondary uranyl minerals.

The document transmitted herewith contains sensitive unclassified information.  
When separated from enclosures, this document is decontrolled.



Washington Office • Twinbrook Metro Plaza #210  
12300 Twinbrook Parkway • Rockville, Maryland 20852-1606

Mrs. Deborah A. DeMarco  
Page 2  
June 10, 2005

Please advise me of the result of your programmatic review. If you have any questions regarding this abstract, please contact Dr. English Percy at (210) 522-5540.

Sincerely,



Gordon Wittmeyer, Ph.D.  
Assistant Director, Earth Sciences



/nn

Enclosures: Abstract  
NRC Form 390A

cc: W. Reamer  
B. Meehan  
E. Whittle  
W. Ford  
T. McCartin  
L. Kokajko  
E. Collins  
F. Brown  
K. Stablein  
M. Bailey  
J. Guttmann  
A. Campbell

B. Leslie  
H. Arlt  
J. Bradbury  
D. Brooks  
P. Justus  
J. Pohle  
J. Trapp  
A. Fetter

W. Patrick  
B. Sagar  
Record Copy B

Letter Only:  
CNWRA Directors  
CNWRA Elem. Mgrs.  
L. Gutierrez