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

> December 29, 2005 Contract No. NRC-02-02-012 Account No. 20.06002.01.362 Al No. 20.06002.01.362.602

U.S. Nuclear Regulatory Commission ATTN: Mrs. Deborah A. DeMarco Division of High-Level Waste Repository Safety Two White Flint North 11545 Rockville Pike Mailstop T7 D15 Washington, DC 20555

Subject: Programmatic Review of Conference Paper

Dear Mrs. DeMarco:

The enclosed conference paper along with Form 390A is being sent for programmatic review. If approved, the paper will be submitted for presentation at the International High-Level Radioactive Waste Management Conference, April 30–May 4, 2006, in Las Vegas, Nevada. The title of the paper is "Fluvial Redistribution of Contaminated Tephra: Description of an Abstracted Model," authored by R. Benke, B. Hill, and D. Hooper.

The paper describes the fluvial redistribution model for use in the Total-system Performance Assessment (TPA) code, which accounts for gradual erosion of potential tephra deposits, mixing with noncontaminated sediments, and episodic depositional events. Results from this model may be used to estimate airborne particle concentrations, which are important factors for calculating inhalation dose in the TPA code. A companion paper highlights how process-level modeling supports the fluvial redistribution modeling for the TPA code through the determination of values for local input parameters presented in this abstract.

Please advise me of the results of your programmatic review.



Washington Office • Twinbrook Metro Plaza #210 12300 Twinbrook Parkway • Rockville, Maryland 20852-1606 Mrs. Deborah A. DeMarco December 29, 2005 Page Two

~ '

If you have any questions regarding this paper, please contact me at (210) 522-5185 or Dr. Roland Benke at (210) 522-5250. Your cooperation in this matter is appreciated.

Sincerely,

Sitakanta Mohang Sitakanta Mohanty

Assistant Director Engineering and Systems Assessment

cc:

V. Whipple E. Whitt Record Copy B, IQS Letter Only W. Reamer E. Collins L. Kokajko A. Campbell F. Brown K. Stablein M. Bailey J. Guttman J. Rubenstone K. Compton B. Leslie T. McCartin B. Hill R. Codell C. Grossman T. Ghosh

Letter Only W. Patrick B. Sagar R. Benke D. Hooper O. Pensado J. Durham L. Howard R. Janetzke P. LaPlante R. Nes F. Osidele O. Povetko J. Mancillas N. Franklin Letter Only GED Directors GED Managers P. Maldonado L. Gutierrez

NRC Form 390A U.S (12-2003) NRCMD 3.9		U.S. NUCLEAR REGULATORY COMMISSION
RELEASE TO PUBLISH UNCLASSIFIED NRC CONTRACTOR SPEECHES, PAPERS, AND JOURNAL ARTICLES (Please type or print)		
1. TITLE (State In full as it appears on the speech, paper, or journal article) Fluvial Redistribution of Contaminated Tephra: Description of An Abstracted Model		
2. аитнов(s) R. Benke, B. Hill, D. Hooper		
3. NAME OF CONFERENCE, LOCATION, AND DATE(s) International High-Level Radioactive Waste Management Conference, April 30–May 4, 2006, Las Vegas, Nevada		
4. NAME OF PUBLICATION Proceedings of the International High-Level Radioactive Waste Management Conference		
5. NAME AND ADDRESS OF THE PUBLISHER		TELEPHONE NUMBER OF THE PUBLISHER
American Nuclear Society 555 North Kensington Ave.		(708) 579-8253
La Grange Park, IL 60526		
6. CONTRACTOR NAME AND COMPLETE MAILING ADDRESS (Include ZIP code)		TELEPHONE NUMBER OF THE CONTRACTOR
Roland Benke Center for Nuclear Waste Regulatory Analyses		(210) 522-5250
6220 Culebra Road		
San Antonio, TX 78238		
YES NO 7. CERTIFICATION (ANSWER ALL QUESTIONS)		
X A. COPYRIGHTED MATERIAL – Does this speech, paper, or journal article contain copyrighted material? If yes, attach a letter of release from the source that holds the copyright.		
X B. PATENT CLEARANCE – Does this speech, paper, or journal article require patent clearance? If yes, the NRC Patent Counsel must signify clearance by signing below.		
NRC PATENT COUNSEL (Type or Print Name) SIGNATURE D	ATE
X C. REFERENCE AVAILABILITY - Is all material referenced in this speech, paper, or journal article available to the public either through a public library, the Government Printing Office, the National Technical Information Service, or the NRC Public Document Room? If no, list below the specific availability of each referenced document.		
SPECIFIC AVAILABILITY		
to the	to the International System of Units, followed by the English units in brackets, pursuant to the NRC Policy Statement implementing the Omnibus Trade and Competitiveness Act of 1988, Executive Order 12770, July 25,	
8. AUTHORIZATION The signatures of the NRC project manager and the contractor official certify that the NRC contractor speech, paper, or journal article is authorized by NRC, that it has undergone appropriate peer review for technical content and for material that might compromise commercial proprietary rights, and that it does not contain classified, sensitive unclassified, or nonpublic information. (NRC MD 3.9, Part II(A)(1)(d))		
A. CONTRACTOR AUTHORIZING OFFICIAL (Type or print name) Sitakanta Mohanty	SIGNATURE Sitakanta Moham	ty 12/29/2005
B. NRC RESPONSIBLE PROJECT MANAGER (Type or print name)	OFFICE/DIVISION	MAIL STOP
TELEPHONE NUMBER E-MAIL I.D.	Did you place the speech, paper, or journal article in ADA If so, provide the ADAMS Accession No. (Use Template OCIO 099)	MS? YES NO C
SIGNATURE		DATE
NRC FORM 390A (12-2003) PRINTED ON RECYCLED PAPER		