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December 29, 2005
Contract No. NRC-02-02-012
Account No. 20.06002.01.262

U.S. Nuclear Regulatory Commission
ATTN: Mrs. Deborah A. DeMarco
Division of High-Level Waste Repository Safety
Office of Nuclear Material Safety and Safeguards
Mail Stop 7 F3
Washington, DC 20555

Subject: Programmatic Review of Paper for the International High-Level Radioactive Waste Management Conference (AI 20.06002.01.262.602)

Dear Mrs. DeMarco:

This paper will be submitted for presentation at the 2006 International High Level Radioactive Waste Management Conference to be held April 30–May 4, 2006, in Las Vegas, Nevada. The title of the paper is

“Thermohydrological Model Uncertainty Reduction Using Physical Analog Models”
by R.T. Green and S.L. Painter

This paper presents analyses of laboratory-scale and field-scale heater experiments to help reduce uncertainty in thermohydrological conceptual and numerical models. Measurements of temperature and saturation from the two tests provide an opportunity to evaluate the capability of a multiphase simulator, MULTIFLO®, to replicate the thermohydrological processes observed during the tests. These analyses and the associated reduction in uncertainty are important because MULTIFLO is used to simulate the future performance of a geologic repository located in fractured porous media.

Please advise me of the results of your programmatic review. Your cooperation in this matter is appreciated.

Sincerely yours,

M. Wittmeyer for GWW

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

/ph

Enclosures: Paper
NRC Form 390A

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Thermohydrological Model Uncertainty Reduction Using Physical Analog Models

2. AUTHOR(S)
R. Green and S. Painter

3. NAME OF CONFERENCE, LOCATION, AND DATE(S)
International High Level Radioactive Waste Management Conference Las Vegas, NV April 30 - May 4, 2006

4. NAME OF PUBLICATION
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