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July 8, 2001

To: J. Russell Dyer, Project Manager
Yucca Mountain Site Characterization Office
P.O. Box 30307
North Las Vegas, NV 89036-0307

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RE: An EIS Public Comment

Sir,

1 This is to acknowledge receipt of recent materials referring to the draft environmental impact statement (EIS) for Yucca Mountain. Unfortunately, I was moving to a new job in Oklahoma and did not have time to respond. Your last flyer about the deadline on public comments reached me at my new address after the deadline. But I want to assure you that there is still plenty of opportunity for you to make it into the textbooks as the example of a program manager who allowed the credentials of those who gave him the answers he wanted to hear to trump the math that he did not.

If you refer to the following web site:

<http://www.uark.edu/depts/agronomy/scott/research.html>

you will find a set of draft papers that describe a new quasi-analytic exact solution to Richards' equation for unsaturated flow. Saying that it is a "general" solution is my mistake, not Dr. Scott's. The approach only works for inflow wetting fronts that are monotonic in space. Nevertheless, it works for a variety of boundary conditions, including constant head and constant inflow in both the horizontal and vertical.

You may recall that Drs. Liu and Bodvarsson claimed that the circumstance of constant vertical inflow demonstrated my work to be non-physical and invalid. Funny thing about that - the draft papers include a comparison of the vertical constant inflow exact solution to a finite difference model using one of my approaches to Darcian intergrid conductivity means. The agreement is quite good, and can easily be verified by anyone with a sufficient background in graduate-level math. As for my work being physically invalid; it is as physically valid as any exercise in applied math can be. My math does not become non-physical just because I did not seek the almighty permission of your domestic reviewers to get it right. It does not become invalid just because you apparently have neither the background nor the will to challenge your reviewers on the math. It does not become inapplicable just because it may thwart some of the forgone conclusions of the Nuclear Club.

The difficulty with bugging the math in public is that it is always waiting there for anyone with the ability to solve or verify it. What becomes of your credentials then?

Sincerely,



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