Questa Engineering Corporation
1010 Tenth Street
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MEMORANDUM

DATE: February 14, 2001
TO: Mal Murphy [malmurphy@home.com]
CC: Danielle Fife **[**dfife@nrff.com]
RE: **SATURATED ZONE FLOW & TRANSPORT AMR Reviews**
Recharge & Lateral Groundwater Flow Boundary Conditions for Saturated Zone Site-Scale Flow and Transport
ANL-NBS-MD-000010

This AMR basically says the site-scale SZ model was extracted from the regional-scale model. The key points are:

1. Sec. 7, p. 19. "Unqulaified input data were used in this analysis. Therefore, any conclusions from this analysis and the use of the results from this analysis must be controlled as having "to be verified" status."

2. **The tables at the end p. 22-25 contain the site-scale fluxes used. These are the underlying source of the concerns identified by Tom Buqo and myself from the SZ Technical Exchange in Nov. 2000. The fluxes do not add up by about 7456 m^3/day = 2205 acre-ft/year. Thus, there appears to be more groundwater coming into the model than is leaving. In addition, 48.9 kg/s = 1256 AF/yr enters the site-scale model as recharge (p. 20), so there appears to be a significant material balance problem**.
