Joseph D. Ziegler, Acting Director Office of License Application and Strategy U.S. Department of Energy Office of Repository Development P.O. Box 364629 M/S 523 North Las Vegas, NV 89036-8629

SUBJECT: TOTAL SYSTEM PERFORMANCE ASSESSMENT AND INTEGRATION AGREEMENT (TSPAI).4.07

Dear Mr. Ziegler:

In your letter dated December 23, 2002, the U.S. Department of Energy (DOE) provided information related to the Agreement TSPAI.4.07. This Agreement acknowledges the DOE update of procedure AP SI.1Q Software Management and requests DOE to consider the process it would follow to conduct a systematic and uniform software verification, to ensure correct implementation of algorithms and to fully disclose calculations and results. After review of the DOE letter, the U.S. Nuclear Regulatory Commission (NRC) staff considers the response incomplete because only a portion of the information requested by the Agreement has been provided for NRC review. While DOE references the revised software qualification procedure requested by the Agreement, documentation of compliance with this procedure (also requested by the Agreement in the form of records packages) has not been completed. Furthermore, the DOE letter informs NRC of a decision to develop an additional procedure related to verification and validation of legacy codes. NRC staff believe the concerns raised in Agreement TSPAI.4.07 apply to this additional procedure since it relates to software management and, specifically, verification and validation. Finally, NRC staff expects to observe a DOE quality assurance audit regarding software management in May of 2003 to gain additional insight into the new software life cycle process described in the revised procedures.

To satisfy Agreement TSPAI.4.07 completely, DOE should complete and provide for NRC review: (i) the revised verification and validation procedures for legacy codes and (ii) documentation of compliance with the revised software management and legacy code verification and validation procedures (including records packages and satisfactory quality assurance audit results).

J. Ziegler

The staff concludes that important information requested in the Agreement has not been provided by the DOE to address Agreement TSPAI.4.07 fully. Therefore, Agreement TSPAI.4.07 is listed as "Partly Received." If there are any questions regarding this letter, please contact Richard Codell at 301-415-8167 or by e-mail at <u>rbc@nrc.gov.</u>

Sincerely,

/**RA**/

Janet R. Schlueter, Chief High-Level Waste Branch Division of Waste Management Office of Nuclear Material Safety and Safeguards

cc: See attached distribution list

J. Ziegler

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Sincerely,

/**RA**/

Janet R. Schlueter, Chief High-Level Waste Branch Division of Waste Management Office of Nuclear Material Safety

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