

JUL 7 1993

Dr. B. Ruegger
Radiation Protection and
Waste Management Division
OECD Nuclear Energy Agency
Le Seine Saint Germain
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Dear Dr. Ruegger:

As requested in your letter of May 6, 1993, to all members of the PAAG, I have reviewed the draft format for the new Sorption Data Base (SDB) and provide the following comments:

- 1) A sorption data base may be useful to modelers in early iterations of performance assessment of nuclear waste repositories when site specific data are limited or in later iterations, as a supplement to site specific data. The data base may also be useful to experimentalists interested in comparing the results of their studies to the results from other studies.
- 2) The list of parameters included in the new format for the SDB is extensive. I suggest, however, that speciation of the aqueous phase also be considered as a parameter in the list.
- 3) I endorse the change of the format from the old SDB which contained numerical values to the format of the new SDB which will not include numerical data. This will ensure that users evaluate the appropriateness of data from particular studies for their own application. Simplifying the SDB should also make it easier to use and facilitate its update.
- 4) Given the strong endorsement of surface complexation models at the NEA Sorption Workshop in Interlaken, Switzerland, consideration should be given to including the parameters associated with these models in the list of parameters in the new SDB.
- 5) The data contained in the old database should be preserved as this is a valuable source of information and the result of considerable effort. I recommend that the NEA continue to make the old database available to those requesting it. However, a warning should be attached encouraging the user to understand the objectives of the experiment and the conditions under which the measurements were made before using the Kd values in performance assessment modelling.

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Dr. B. Ruegger

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I appreciate the contribution the NEA has made concerning development and maintenance of this database.

Sincerely,

/S/

Margaret V. Federline, Branch Chief
Hydrology and Systems Performance Branch
Division of High-Level Waste Management
Office of Nuclear Material Safety and Safeguards

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