

- 1 - APR 22 1988

Dr. Charles G. Interrante, Program Manager
Metallurgy Division - Corrosion Section
National Bureau of Standards
U.S. Department of Commerce
Gaithersburg, MD. 20899

Dear Dr. Interrante:

We have reviewed NBS' Monthly Letter Report for February 1988 for FIN A-4171, "Evaluation and Compilation of DOE Waste Package Test Data." Our comments are presented below.

1. As recommended in our comments on the December 1987 and the January 1988 Monthly Letter Reports (MLR), reports selected for review should be assigned a priority according to NBS' best judgment. These priorities should be stated in the monthly letter reports. Such a system has not yet been implemented, although you have informed us that the April report will include a classification system for documents received for possible inclusion in the database.
2. Where the reviews are not completed by the time of preparation of the MLR, we request that NBS include some indication in the MLR of how far along each review is.
3. On pg 4, the MLR states that no new reports on waste form degradation were identified in January. We request that the MLR state what accession lists or bibliographies were scanned.
4. As stated last month, Task 2 (Identification of Additional Data Required) should specifically state what has been accomplished each month, even if no additional data needs have been identified. It is not sufficient to state that studies are continuing.
5. With respect to the work on corrosion of waste package materials, were the decreases in corrosion rates of the steels being tested expected?
6. In the work on corrosion behavior of Zircaloy cladding, is it expected that spent fuel rods would be subjected to cyclic anodic polarization in the repository environment at some time? The statement that the high current observed might be due to pitting (among other factors) appears inconsistent with the previous statement that all materials passivated.

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7. The review of the document on application of the EQ3/6 code to modeling glass behavior presents a summary of the information content of the document that is good considering the preliminary nature of the document. We need to discuss whether a few more details about the code basis or at least the nature of any adaptations made should be included in the document review.
8. The review of the document on the influence of copper on Zircaloy cladding also represents an improvement over previous reviews in that it includes more observations by the reviewer. Some means of identifying which statements are those of the author and which are those of the reviewer needs to be adopted. This and other aspects are to be discussed with NBS shortly.
9. The review of Chapter 2 of the PNL final report on glass leaching has good sections outlining what was studied and what the test conditions were. The section on the tables and figures should include comments by the reviewer as to his/her judgment of the quality of the data involved and interpretation of these data. The material given in the general comments section appears to be more a summary of the chapter reviewed rather than comments by the reviewer.
11. Comments on the review paper on the corrosion of Zircaloy will be transmitted separately.

Actions resulting from this letter are considered to be within the scope of FIN A-4171. No changes in costs or delivery of contracted products are authorized. Please notify me immediately if you feel this letter will result in additional costs or delay in delivery of contracted products.

Sincerely,



Charles H. Peterson Materials
Engineering Section Technical Review
Branch Division of High-Level Waste
Management Office of Nuclear Material
Safety and Safeguards

cc: Dr. Neville Pugh, Director
Metallurgy Division

Dr. Dale Hall, Group Leader
Corrosion Group, Metallurgy Division

OFFICIAL CONCURRENCE AND DISTRIBUTION RECORD

LETTER TO: Dr. Charles G. Interrante, Program Manager
 Metallurgy Division - Corrosion Section
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 U.S. Department of Commerce
 Gaithersburg, MD. 20899

FROM: Charles H. Peterson
 Materials Engineering Section
 Technical Review Branch
 Division of High-Level Waste Management
 Office of Nuclear Material Safety
 and Safeguards

SUBJECT: NRC COMMENTS ON NBS FEBRUARY 1988 MONTHLY LETTER REPORT

DATE: APR 22 1988

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