

UNITED STATES DEPARTMENT OF COMMERCE National Bureau of Standards

Gaithersburg, Maryland 20899

November 18, 1986

WM DOCKET CONTROL CENTER

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Mr. Everett A. Wick Division of Waste Management Office of Nuclear Materials Safety and Safeguards U.S. Nuclear Regulatory Commission Washington, DC 20555

Re: Monthly Letter Status Report for October 1986 (FIN-A-4171-6)

Dear Mr. Wick:

Enclosed is the monthly progress report for the project "Evaluation and Compilation of DOE Waste Package Test Data" (FIN-A-4171-6). The financial information is reported separately.

Sincerely,

charles G. Internas Charles G. Interrante

Program Manager Corrosion Group Metallurgy Division

Enclosures

Distribution: NMSS PM (1) Office of the Director, NMSS (Attn: PPAS) (1) WM Div. Director (1) WMEG Branch Chief (1) WMEG Branch Materials Engineering Sec. Leader (1) WM Docket Control Center (4) Office of Research (1) Office of Resource Mgmt. (1) Div. of Automated Services (ATTN: Director)

WM Project 10, 11, 16 Docket No. __

(Seemon to WM, 623-SS)

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Monthly Letter Report for October, 1986

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Performing Organization: National Bureau of Standards

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Office of Nuclear Materials Safety and Safeguards

Silver Spring, MD 20910

TASK 1 -- Review of Waste Package Data Base

WERB Reviews -- A draft of the semi-annual report is being reviewed by Washington Editorial Review Board (WERB), and their review should be completed within the time required to permit a final report to be issued by November 30, 1986.

- SRP -- Preliminary reviews have been conducted for the following two reports.

 These reviews indicate to us that formal reviews of these reports will not be required.
- 1. DOE/CH/10140-03(85-4), "Salt Repository Project Technical Progress Report for the Quarter, July 1-September 30, 1985, prepared for the U.S. Department of Energy by the Office of Nuclear Waste Isolation, Battelle Project Management Division
- 2. DOE/CH/10140-03(86-1), "Salt Repository Project Technical Progress Report for the Quarter, October 1-December 31, 1985, prepared for the U.S. Department of Energy by the Office of Nuclear Waste Isolation, Battelle Project Management Division
- BWIP -- The following reports have been identified for review and will be reviewed as soon as a suitable reviewer has been identified.
- 1. RHO-BW-SA-560-P, "Status of Environmentally Assisted Cracking Studies by the Basalt Waste Isolation Project," March 1986.
- 2. RHO-BW-SA-416-P, "Sorption and Desorption Reactions of Radionuclides with a Crushed Basalt-Bentonite Packing Material," April 1985.
- 3. RHO-BW-SA-509-P, "Thermal Analysis of Waste Package Preliminary Reliability Assessment," March 1986.
- 4. B047154, "BWIP General Corrosion Studies Yearly Summary Report for FY-1984"

NNWSI -- Review has been initiated on the following report this month:

1. UCRL-15825, "The Effect of Gamma Radiation on Groundwater Chemistry and Glass Leaching as Related to the NNWSI Repository Site", LLNL, May 1986.

TASK 2 -- Identification of Additional Data Required and Identification of Tests to Generate the Data.

NBS lead workers are continuing their studies concerning the types of additional data and verification tests needed to demonstrate that the DOE waste package designs will meet the performance objectives of 10 CFR 60. Presently, no parts of the NBS preliminary plans for laboratory tests to be conducted at the NBS under Task 3 of this contract have been approved. Revised versions of three of these proposals are being prepared for further consideration: (1) "Corrosion of Metals in Simulated Repository Environments, (2) "Test Methods and Localized Corrosion Behavior of Steels and Titanium Alloys", and (3) "Use of Fracture Mechanics Tests for Detecting Degradation Effects". Proposal (2) will include work on zircaloys.

TASK 4 -- General Technical Assistance

Our reply to your request dated Sept. 2, 1986 for short-term technical assistance for review of "Repository Environmental Parameters Relevant to Assessing the Performance of High Level Waste Package in Basalt, Tuff, and Salt," NUREG/CR-4134, by H.C. Claiborne, et al. was sent October 16, 1986.

Charles G. Interrante Dept. of Commerce	9/16/86	DATE RE 'E		50	NO 10486-794		
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