

JUL 30 1985

426.1/A1757/85/07/24

(A1158) A1166

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WM-1025 WM Record File
A1158, A1166
Dr. Robert M. Cranwell, Supervisor
Waste Management Systems
Division 6431
Sandia National Laboratories
P. O. Box 5800
Albuquerque, NM 87185
(Return to WM, 623-SS)

WM Project 10,1116
Docket No. _____
PDR _____
LPDR (BNS) _____
LPDR (B, N, S) _____
HMiller, WMRP _____
EDavis, PPAS _____
DDR _____
Ch LPDR (B, NS)

WMGT rf
NMSS rf
RBrowning
MBell
JBunting
MKnapp
MFliegel
NColeman & rf
PDR
LPDR (B, N, S)
HMiller, WMRP
EDavis, PPAS

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I have received and reviewed your June monthly progress reports, dated 14 July 1985, for FIN's A1158, A1166, and A1757. The work performed during June has been fully satisfactory. Separate comment sections for each project are provided below:

Project A1158

On July 18 I met with you and Paul Davis in Silver Spring to discuss product schedules and costs and to briefly discuss future work. During this meeting you indicated that the camera-ready copy of the RSD for unsaturated tuff was not yet completed but would be transmitted to NRC no later than September 15. As you know, the delivery date for this final RSD has missed previous SNL-specified deadlines of June 6 and July 12. I was also informed that, despite several reclassifications of funds to this contract FIN, an overrun of costs may occur under Subtask 1.1. The reported amount was about 10K. You should determine whether additional reclassifications of funds are owed to this project account. In any event, I request that a Sandia product of typically high quality be delivered on or before the specified deadline and within your previous cost estimates.

In the short time that I have managed A1158, it has become apparent that the procedures used to restore to this project funds spent on other contracts (reclassification) makes it extremely difficult to track, on a monthly basis, the true project funding status. This is especially true when the reclasses occur near the end of the fiscal year. No doubt you are also frustrated by accounting practices at Sandia. This will be an important topic of discussion when I meet with you in Albuquerque for an onsite contract review sometime in September. In any event, we shall work closely to try to resolve these problems and to avoid similar problems during the next fiscal year.

You are authorized to send an SNL representative to meet with your subcontractor, Geotrans, regarding difficulties encountered in finalizing the SWIFT II Self-Teaching Curriculum. This visit should not exceed three work-days. It is also requested that your representative visit our offices while in the Washington area to present the results of the Geotrans review to me and other NRC management personnel. One-half workday is authorized for this

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overview. Please provide, in your upcoming July monthly letter report, a date for transmittal of the final camera-ready copy of the Self-Teaching Curriculum.

On 10 July 1985 I forwarded to you via express mail a PNL document entitled "[Draft] Preliminary Review and Evaluation of NRC and DOE Geohydrologic Flow and Transport, and Environmental Consequence Methodologies for Performance Assessment of Geologic Disposal Sites for High-Level Nuclear Waste". You are requested to provide written comments regarding the accuracy of both the technical and programmatic content of this report. As previously agreed in our telephone conversation on July 23rd, your written comments should be received at NRC by July 26th. This work is to be performed under Task 5 (Short-Term Technical Assistance) and should not exceed five man-days.

Project A1166

During our meeting on July 18 I reviewed with you an input problem regarding the SWIFT code that was brought to my attention by Tim McCartin of RES. The problem arises when establishing grid block centers while using the radial coordinate system option. In Subroutine READ1, automatic mesh generation is aborted when the user sets the variable R1 equal to 0.0. In so doing, an error message is generated by line # 560. R1 is defined using the R1-22 card. Also, the discussion on page 73 of NUREG/CR-2324 does not inform the user about how to invoke the option of entering user-defined radii for each grid block center.

I have noted a discrepancy between the year-to-date expenditures listed in your June monthly report and the April invoice billing NRC, dated 8 APR 1985. According to the monthly report, only 14K had been spent as of June 1985. However, the April invoice showed that as of that month NRC had been charged over 23K. Although your monthly letter indicates that the year-to-date cost is only an estimate, I am concerned about the size of the discrepancy. Please resolve this disparity in your next monthly report.

Please forward a magnetic tape with the current version (4.84) of the SWIFT II code, dated March 1984. When received and implemented on our available operating systems we will delete older and outdated versions.

On 25 July 1985 I discussed the status of the Quality Assurance Plan for computer hardware with Ginger Wilkinson. She indicated that the first draft of this document would be transmitted to me on or before August 15.

As discussed previously with you, this project will terminate at the end of the current fiscal year. Please contact me if you have any questions regarding this close-out.

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Project A1757

The edited first draft version of the summary of conceptual models for BWIP has been received and will be reviewed by other contractors and the NRC staff. This draft is intended to provide a review of our current understanding of the geology and hydrogeology of the Pasco Basin in support of preliminary regional modeling of that basin. Review comments will be forwarded to you by the end of August.

Now that we have received a draft of the product requested under Subtask 1.1, you are authorized to initiate work on Subtask 1.2 regarding the development of a program plan. This program plan, to be submitted in draft form for comment, shall outline a proposed schedule and practical methodologies for performing Subtasks 1.3 and 1.4. This draft should be transmitted to NRC no later than the end of August. I have prepared the following preliminary list of scenarios likely to be of geohydrologic significance in performance assessment studies of the BWIP site:

1. Base case;
2. Wastewater disposal practices in the Cold Creek Syncline and elsewhere on the Hanford Reservation;
3. Future migration of major channels of the Columbia River;
4. Groundwater withdrawals both on- and off-site;
5. Effects of constructing the Exploratory Shaft and the In Situ Test Facility;
6. Surface application of irrigation waters derived from the Columbia River or from groundwater sources;
7. Post-placement effects on the hydrogeologic system caused by repository-generated thermal loadings;
8. Hydrologic effects caused by varying pool elevations (or failure) of the Priest Rapids Dam; also, the effects of new reservoir construction;
9. Hydrologic testing on the scale of the Cold Creek Syncline;
10. Significant future departures from present-day precipitation levels in the Pacific Northwest;
11. Appropriate combinations of the above scenarios.

It is noted that the base case scenario has already been developed, including operative simulation packages, under FIN A1266. It should be possible to document and utilize this previous work under A1757 with a minimum of time and effort. In addressing the base case I am referring to a simplistic 3-D gridded model that does not incorporate internal geologic structures or boundaries. The base case provides the basis for preparing simulation packages for all other scenarios.

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GENERAL COMMENTS

I am currently planning to visit your offices during September for a review of project work to date under all three contracts (A1158, A1166, and A1757) and to discuss future goals and work activities. Planning for this trip had, until now, been postponed due to interagency activities and limitations in our available travel budget. Formal presentations by your staff are not required. Rather, I plan and look forward to meeting individually with you and each principal investigator. Tentatively, I plan to visit your offices during either September 5-6 or September 23-24. Notify me regarding which of these periods would be more convenient, or if alternate dates would be preferable.

The following paragraph is provided at the request of our EDO office. This information regarding requests for foreign travel supercedes that provided to you in my letter dated May 31, 1985.

"NRC has amended its procedures for approval of foreign travel, and NRC Manual Chapters 1102 and 1501 will be modified accordingly. All contractor foreign travel must be approved by the NRC Office of the Executive Director for Operations. Enclosed are sample forms -- NRC Form 279, Request and Authorization for Official Travel, and NRC Form 445, Request for Approval of Official Foreign Travel, which must be completed for approval of foreign travel. These forms must be completed and submitted to NRC for signature at least 45 days in advance of any foreign trip; these forms can be obtained as needed and upon request from NRC."

The action taken by this letter is considered to be within the scope of the current contracts A1158, A1166, and A1757. No changes to cost or delivery of contracted services and products are authorized. Please notify me immediately if you believe that this letter would result in changes to cost or delivery of contracted products.

Sincerely,

Original Signed By

Neil M. Coleman, Project Manager
Hydrology Section
Geotechnical Branch
Division of Waste Management

Enclosure:
As stated

cc: P. A. Davis, SNL
R. L. Hunter, SNL
G. F. Wilkinson, SNL

Enclosure available in DCC.

FC	: <i>NC</i>	: <i>MF</i>	:	:	:	:	:
AME	: <i>N Coleman</i>	: <i>M. Fliegel</i>	:	:	:	:	:
DATE	: <i>85/07/29</i>	: <i>85/07/30</i>	:	:	:	:	:

U.S. NUCLEAR REGULATORY COMMISSION

REQUEST AND AUTHORIZATION FOR OFFICIAL TRAVEL

(See NRC Appendix 1501 for detailed instructions for completing this form-Do Not Remove Carbons. All shaded areas must be completed.)

1. Amendment <input type="checkbox"/>	2. Div./Office Code a. Div. b. Sub unit	3. Leave Blank Auth. No.	4. Address Code (For travel advance) <input type="checkbox"/> Home <input type="checkbox"/> Office <input type="checkbox"/> Social	5. Name of Traveler (First two initials and last name)	
Omit items 6, 7, and 8 unless TRAVEL ADVANCE is required				7. City, State	8. ZIP Code
6. Mail Address (P.O. Box, Street or Office)			9. Traveler's Social Security No.		
10. Consultant Contract No.		11.			
12. Program Symbol (If reimbursable work, show interagency agreement number)	13.	14. Estimated No. days official travel only	15. Travel starts on or about MM DD YY	16. Travel ends on or about MM DD YY	17. Special subsistence allowance (Justify in Remarks) a. Special per diem rate b. Actual Expenses not to exceed
18. Categories of Travel (Check One) a. <input type="checkbox"/> Admn. Of Contract Activities b. <input type="checkbox"/> Program and Technical Review c. <input type="checkbox"/> Mgmt. Appraisals, Audits & Investigations d. <input type="checkbox"/> Boards, Panels, Consultants & Advisory Committees e. <input type="checkbox"/> NRC Symposia Conferences & Meetings f. <input type="checkbox"/> Non-NRC Symposia, Conferences & Meetings g. <input type="checkbox"/> Int'l. Agree. of Cooperation Activities h. <input type="checkbox"/> Change of Station (Circle One- New Appt. or Transfer). i. <input type="checkbox"/> Contract Compliance Review (EEO) j. <input type="checkbox"/> Public Hearings by NRC and Others k. INVITATIONAL TRAVEL <input type="checkbox"/> To interview <input type="checkbox"/> To confer l. TRAINING OF EMPLOYEES <input type="checkbox"/> Change of Station <input type="checkbox"/> Temp. Duty Station m. <input type="checkbox"/> OTHER (Explain in Remarks)			19. Authority a. <input type="checkbox"/> FTR* b. <input type="checkbox"/> JTR c. <input type="checkbox"/> Use of Common Carrier (including Mixed Modes where necessary) d. <input type="checkbox"/> Excess Baggage not to exceed. e. <input type="checkbox"/> Registration Fees (Give amount) \$ _____ f. <input type="checkbox"/> Annual leave to be taken during trip Private auto (Check One) <input type="checkbox"/> Private auto if adv. to Govt.** <input type="checkbox"/> Private auto not to exceed cost of common carrier g. Rate per Mile <input type="checkbox"/> 8¢ <input type="checkbox"/> 12¢ <input type="checkbox"/> 10¢ <input type="checkbox"/> 15¢ Other _____ (Specify) h. Social Conveances <input type="checkbox"/> Taxi <input type="checkbox"/> Gov't-owned veh. GSA Contract Rental and Car Rental <input type="checkbox"/> Other Social Conveances i. <input type="checkbox"/> Other (Specify in Remarks) j. <input type="checkbox"/> Househunting (Explain in Remarks) k. <input type="checkbox"/> 2nd Private Auto (Justify in Remarks). *Authorizes, as appropriate, (1) per diem under the lodgings-plus method; (2) special subsistence allowance as indicated in item 17; or (3) per diem only for changes of station indicated in items 18 h, or l. ** Justify in remarks.		
20. Purpose of Travel <div style="text-align: right;">Div. Purpose Code</div>			22. Type of Advance <input type="checkbox"/> Cash <input type="checkbox"/> Check 23. Total Estimated Cost		
21. Travel Advance Request a. Advance required by (Date) MM DD YY b. Adv. Req. \$ _____	(For Travel Svc. Sec. & Audit use only.) 22. Type of Advance <input type="checkbox"/> Cash <input type="checkbox"/> Check 23. Total Estimated Cost		24. Est. Foreign Costs included in Total Est. Costs		
c. Call Extension: Payment Requested:		25. Type Authorization other than Regular (Check if Applicable) <input type="checkbox"/> Blanket <input type="checkbox"/> Admin. Approval <input type="checkbox"/> Extended Travel <input type="checkbox"/> Local Travel			
(Signature of Traveler) _____ (Date) _____ <input type="checkbox"/> Mail check to address other than above (Specify in Remarks)		26. If funds for this trip were initially reserved using the PRE-AUTHORIZATION FUNDS RESERVATION, state number used.			
27. Itinerary - From: To:			27. Remarks (Use additional sheet if necessary):		
Return To:			29. Certification of Availability of funds: There are sufficient funds to cover the total estimated cost. _____ (Signature)		
Furthest (or primary) Point of Travel (Optional) →			_____ (Title) _____ (Date)		
30. Requested By:			31. Administrative Approval:		
_____ (Signature) _____ (Date)			_____ (Signature) _____ (Date)		

Official Designation _____ Title _____

32. CERTIFICATION OF AUTHORIZATION: The official travel described above is hereby directed and expenses necessary to the performance thereof are authorized in accordance with the Federal Travel Regulations, as amended, or the Joint Travel Regulations, as appropriate, and under the conditions on the authorization.

REQUEST FOR APPROVAL OF OFFICIAL FOREIGN TRAVEL

TO: DIRECTOR'S NAME <hr/> PROGRAM OFFICE OR DIVISION <hr/> ROOM NUMBER BUILDING	FROM: CHIEF OF BRANCH (Name) <hr/> BRANCH <hr/> ROOM NUMBER BUILDING EXTENSION
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A. TRAVEL DATA (To be completed by traveler)

1. TRAVELER'S NAME (Last, first and middle initial) <hr/>	2. DATE OF BIRTH <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">MO</td> <td style="width: 15%;">DAY</td> <td style="width: 15%;">YEAR</td> <td style="width: 55%;">CITY</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td></td> </tr> </table>	MO	DAY	YEAR	CITY					3. PLACE OF BIRTH <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">STATE</td> <td style="width: 40%;">COUNTRY</td> </tr> </table>	STATE	COUNTRY
MO	DAY	YEAR	CITY									
STATE	COUNTRY											
4. HOME ADDRESS <hr/> CITY STATE ZIP CODE	5. CITIZENSHIP	6. PASSPORT NUMBER (if available) <hr/>										
8. EMPLOYER <hr/> ORGANIZATIONAL UNIT	7. G CLEARANCE NUMBER (If visit involves classified information, obtain clearance number from the Personnel Security Branch) <hr/>	9. CONTRACT NUMBER (if applicable) <hr/>										
12. BUSINESS ADDRESS <hr/> CITY STATE ZIP CODE	10. POSITION TITLE (include profession) <hr/>											

13. PROPOSED ITINERARY - If this information is CLASSIFIED, be sure to CLASSIFY THIS FORM appropriately. (Account for all time from beginning through ending dates of travel)

DATES	LOCATION <i>(Installation, city, country)</i>	INDIVIDUALS TO BE CONTACTED	SUBJECT OF DISCUSSION	"X" one	
				CLASSIFIED	UNCLASSIFIED

(If more space is required, a separate sheet)

In addition, specify nature and classification of information to be disclosed including titles of papers to be presented; nature of information to be obtained at each of the places to be visited and conferences to be attended and its relation to traveler's work. (TRAVELERS are RESPONSIBLE for OBTAINING CLEARANCES for papers or speeches when necessary.)

16. LIST PERSONS WITH WHOM PURPOSE OF TRAVEL HAS BEEN COORDINATED (include intraoffice as well as other divisions and offices) AND THOSE TO BE BRIEFED OR RECEIVE TRIP REPORTS UPON RETURN.

17. EMPLOYEE'S SIGNATURE

DATE

18. TRAVELER'S SUPERVISOR

ENDORSEMENT AND REMARKS

SIGNATURE

TITLE

DATE

19. CONTRACT EMPLOYEES (To be completed by official responsible for supervising activities involved in proposed foreign travel or other official responsible for approving foreign travel under the terms of the contract)

ENDORSEMENT AND REMARKS

SIGNATURE

TITLE

DATE

20. HEADQUARTER'S PROGRAM OFFICE OR DIVISION

RECOMMENDATION AND/OR REMARKS

SIGNATURE

TITLE

DATE

C. ESTIMATED COST OF TRAVEL (To be completed by NRC travel office representative)

21. COST TO NRC

22. COST TO OTHER SOURCE (To be completed if part of cost is to be or has been requested from source other than NRC)

SIGNATURE

TRANSPORTATION

\$

SOURCE

TITLE

PERDIEM AND MISCELLANEOUS

\$

AMOUNT

DATE

TOTAL

\$

D. CONCURRENCES AND/OR REMARKS (To be completed at NRC Headquarters)

23. OFFICE OF INTERNATIONAL PROGRAMS

CONCURRENCES AND/OR REMARKS

SIGNATURE

TITLE

DATE

24. DIVISION OF SECURITY (Communist controlled countries or classified meetings) NOTE: Compliance with NRCM 2101

CONCURRENCES AND/OR REMARKS

SIGNATURE

TITLE

DATE

25. OTHER CLEARANCE

SIGNATURE

TITLE

DATE

E. FINAL ACTION - OFFICE OF THE EXECUTIVE DIRECTOR FOR OPERATIONS

FOREIGN TRAVEL AT NRC EXPENSE AS OUTLINED IN PART A, IS: ("x" one)

APPROVED

APPROVED, SUBJECT TO REMARKS AND LIMITATIONS

DISAPPROVED

SIGNATURE

REMARKS AND/OR LIMITATIONS

TITLE

DATE

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 445. This information is maintained in a system of records designated as NRC-20 and described at 40 Federal Register 45341 (October 1, 1975).

1. **AUTHORITY** 31 U.S.C. 21, 22, 24, 49, 54, 66a, and 952; 5 U.S.C. 5701; Federal Travel Regulations and Federal Property Management Regulations, Part 101-7.
2. **PRINCIPAL PURPOSE(S)** Information entered on this form is used to secure the required NRC approval for official foreign travel.
3. **ROUTINE USES** Information on this form may be used for transmittal to the State Department to secure passports. The information may also be disclosed to an appropriate Federal, State, or local agency in the event the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, and local agency to the extent relevant and necessary for an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.
4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION** Disclosure is voluntary. If the requested information is not provided, however, approval may be denied.
5. **SYSTEM MANAGER(S) AND ADDRESS**
Controller
Office of the Controller
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555