



BROOKHAVEN NATIONAL LABORATORY
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Department of Nuclear Energy

Mr. Derek Widmayer
Division of Low-Level Waste Management
and Decommissioning
Technical Branch
Office of Nuclear Material Safety &
Safeguards
Mail Stop 623-SS
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Widmayer:

This is the monthly management report for the month of October for the program entitled, "Analyses of Special Waste Problems," FIN A-3175. Included is the monthly highlight letter together with the breakdown of costs for the month and year-to-date.

The following budget summary is provided for each current task in this program.

	<u>Cost Per Task, \$K</u>		
	<u>BRC Background</u>	<u>Mixed Waste Management</u>	<u>West Valley LLW</u>
Maximum Authorized Expenditure	45	155	85
FY 87 YTD Costs	18	66	9
FY 88 YTD Costs	0	10	17
% of Maximum (Costed)	40	49	31
Projected Cost for Balance of FY 88	27	79	59
Anticipated Completion Date	12/87	12/87	12/87
Adjustment	0	0	0

Funds Obligated to Date (\$K) = 300.0
Funds Spent to Date (\$K) = 119.0
Funds Available (\$K) = 181.0

8803280236 870624
PDR WASTE PDR
102.2

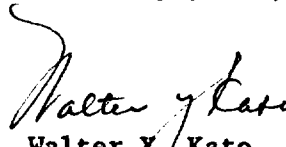
Mr. Derek Widmayer

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November 20, 1987

I hope this meets with your approval. If you have any questions regarding this information, please call the principal investigator or Mr. A. J. Weiss, Administrative Technical Assistant, FTS 666-4473.

Sincerely yours,



Walter Y. Kato
Deputy Chairman

WYK/nms

Enclosures

cc: J. T. Greeves, NRC
M. Knapp, NRC
B. Siskind, BNL
P. Soo, BNL
J. J. Surmeier, NRC
A. J. Weiss, BNL
Document Control Center

F I N A N C I A L S T A T U S

OCTOBER 1987

ACCOUNT 004633	T I T L E ANALYSES OF SPECIAL WASTE PROBLEMS	NRC FIN A-3175
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SUPERVISOR : PS	PRINCIPAL INVESTIGATOR : SISKIND B.
	TERMINATION DATE : 12/31/87

	CURRENT MONTH	YEAR TO DATE
I DIRECT STAFF EFFORT : (S&P STAFF MONTHS)	2.20	2.20
II DIRECT SALARIES :	13,039.	13,039.
MATERIAL & SERVICES	0.	0.
ADP SUPPORT :	0.	0.
SUBCONTRACTS :	0.	0.
TRAVEL EXPENSES :	0.	0.
INDIRECT EXPENSES :	5,049.	5,049.
GENERAL & ADMIN. :	8,596.	8,596.
TOTAL COSTS :	26,684.	26,684.
PERCENTAGE OF AVAIL FLNDS SPENT : (FY 87 CARRYOVER + FY88 FUNDS RECEIVED TO DATE)		12%

III FUNDING STATUS :

FY 1987 CARRYOVER (\$ K)	FY 1988 PROJECTED FUNDING LEVEL (\$ K)	FY 1988 FUNDS REC'D TO DATE (\$ K)	FY 1988 FUNDING BAL. NEEDED (\$ K)
208.	0.	0.	0.

F I N A N C I A L S T A T U S

OCTOBER 1987

ACCOUNT
4633-B

T I T L E

NRC PIN
A-3175

TASK 2: MIXED WASTE MGMT
SUPERVISOR :

PRINCIPAL INVESTIGATOR :

	CURR MO EXP	YTD EXPENSE
DIRECT SALARIES :	4,958.	4,958.
TRAVEL EXPENSES :	0.	0.
MATERIAL & SERVICES :	0.	0.
SUBCONTRACTS :	0.	0.
ADP SUPPORT :	0.	0.
INDIRECT EXPENSES :	1,920.	1,920.
OVERHEAD :	3,269.	3,269.
TOTAL :	10,147.	10,147.
 MAN MONTHS :		
TECHNICAL :	.80	.80
OTHER :	.00	.00
TOTAL LABOR :	.80	.80

F I N A N C I A L S T A T U S

OCTOBER 1987

ACCOUNT 4633-C	T I T L E	NRC FIN A-3175
TASK3: WEST VALLEY LLW		
SUPERVISOR :	PRINCIPAL INVESTIGATOR :	

	CURR MO EXP	YTD EXPENSE
DIRECT SALARIES :	8.081.	8.081.
TRAVEL EXPENSES :	0.	0.
MATERIAL & SERVICES :	0.	0.
SUBCONTRACTS :	0.	0.
ADP SUPPORT :	0.	0.
INDIRECT EXPENSES :	3.129.	3.129.
OVERHEAD :	5.328.	5.328.
TOTAL :	16.538.	16.538.
MAN MONTHS :		
TECHNICAL :	1.40	1.40
OTHER :	.00	.00
TOTAL LABOR :	1.40	1.40

MONTHLY HIGHLIGHTS FOR OCTOBER 1987

"Analyses of Special Waste Problems"
(FIN A-3175)

BNL PRINCIPAL INVESTIGATOR: B. Siskind (FTS-666-5374)

NRC PROJECT MANAGER: D. Widmayer, (FTS-427-4787), NMSS/DLLWMD/TE

Task 1 Background Information for Below Regulatory Concern (BRC) Petitions

The purpose of this task is to assist the NRC in responding to questions by members of the public who intend to submit (or will assist in the submission of) a BRC petition according to 10 CFR 2.802.

No work was carried out in this task during October.

Task 2 Testing and Treatment of Mixed Waste: Availability and Associated Radiological Exposure

The purpose of this task is to provide NRC with information needed to resolve the regulation of mixed wastes under both NRC and EPA regulations. BNL will (1) identify currently available commercial treatment options for mixed wastes as well as options and disposal capacity considered likely to be available in the near future; (2) assess the potential radiological exposures associated with hazardous characteristics testing from the technical literature; and (3) investigate the feasibility of procedures for non-intrusive inspections of LLW packages at LLW disposal facilities.

Subtask 1 - Commercial Treatment and Disposal Availability

The telephone survey of LLW disposal site operators, processing facilities and brokers was completed during July. Memos to file describing each telephone contact and a draft letter report summarizing the survey were sent to the NRC PM during July.

Subtask 2 - Radiological Exposures Associated with Testing

We conducted a literature review to identify the potential radiological exposures associated with testing and treatment of LLW to identify mixed wastes. We discussed the preliminary results of this review in last month's highlights and sent a memo entitled "Radiological Contamination of Equipment Used in Testing and Treatment of Potential Mixed Waste" summarizing the review to NRC under separate cover on October 23, 1987.

Task 3 West Valley Solidified Waste: Document Review and Laboratory Testing

The purpose of this task is to provide technical assistance to the NRC in its review of low-level waste (LLW) management at the West Valley Demonstration Project. This task will focus on the classification and solidification

MONTHLY HIGHLIGHTS FOR OCTOBER 1987

"Analyses of Special Waste Problems"
(FIN A-3175)

Task 3 West Valley Solidified Waste: Document Review and Laboratory Testing
(Continued)

of "wet" LLW generated as a result of the cleanup and classification of spent fuel reprocessing wastes at West Valley. The LLW streams to be solidified include liquids, sludges, and spent ion-exchange resins. This task was initiated in September.

Subtask 1 - Residual Water Content in Dewatered Resins

We conducted some confirmatory laboratory testing during September. These tests involved measuring the residual water content of dewatered resins in accord with procedures described in the BNL Technical Report "The Effect of Cure Conditions on the Stability of Cement Waste Forms After Immersion in Water," WM-3171-4, published September 1987. We tabulated the results of the tests in a memo to file entitled "Residual Water Content in Dewatered Resins," which was sent to NRC under separate cover on October 22, 1987.

Subtask 2 - Review Cement-Solidified Waste Information

At the end of September we received from NRC DOE documents describing in greater detail the West Valley program. We reviewed most of these documents during October. We are preparing a memo to file which summarizes the solidification of the "decontaminated" supernatant from Tank 8D2 and which we will send to NRC under separate cover by November 16.

We have some preliminary comments as a result of our review of the documents dealing with the "decontaminated" 8D2 supernatant. The solidified "decontaminated" supernatant will be a Class C waste due to the TRU content of ~32 nCi/gm. The testing and qualification of the solidified waste are, for the most part, adequate and in accord with the recommendations of NRC's Technical Position on Waste Form. The reviewed documents, however, report no data on the preparation of full-scale waste forms and on the examination of cores or sections of the full-scale waste form for homogeneity and compressive strength.

MONTHLY HIGHLIGHTS FOR OCTOBER 1987

"Analyses of Special Waste Problems"
(FIN A-3175)

Schedules

Task 1 Background Information for BRC Petitions

The NRC PM will notify BNL in the event further work is needed from BNL on the IMPACTS-BRC code or on specific petitions.

Task 2 Testing and Treatment of Mixed Waste: Availability and Associated Radiological Exposure

Because the NRC PM has indicated to us that Task 3 of this FIN now has higher priority than Task 2, we will consult the NRC PM for guidance on scheduling for Task 2.

Task 3 West Valley Solidified Waste: Document Review and Laboratory Testing

We expect to send a memo evaluating the solidification of "decontaminated" Tank 8D2 supernatant to NRC by November 16. We expect to prepare a series of memos in the next month evaluating the solidification of each waste stream separately. The evaluation will determine the extent to which the solidification program meets the criteria recommended in NRC's Branch Technical Position on Waste Form.