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LOS ALAMOS SCIENTIFIC LABORATORY

TO: Delacroix Davis, Jr. (Contract W-7405-eng-36) DATE: January 9, 1976
P. O. Box 1663
Los Alamos, New Mexico 87544

IN REPLY REFER TO: H7-SW-680

Mr. Delacroix Davis, Jr., Director
Nuclear Matls. & Waste Mgmt. Div.
Albuquerque Operations Office
Energy Research & Development
Administration
P. O. Box 5400
Albuquerque, New Mexico 87115

Dear Mr. Davis:

The solid radioactive waste management activities at LASL during December, 1975 are described below.

I. Program Changes

None.

II. Current Activities

A. Planning and design work continued on the Waste Management building to be constructed at Area G, TA-54. The "Request for Directive" and "Preliminary Proposal" for the facility were returned by ALO to LASL for some modification.

B. Installation of electrical and telephone services into Area G was begun, and the project ~50% completed by the end of December. However, all work was stopped due to a lack of materials that have been ordered.

C. Fiber drums, on order for some additional testing in the disposal of nonretrievable chemical treatment sludge were not received in December; consequently we were not able to accomplish any additional work in this area.

D. "Cold" concrete plugs were poured in the 40 corrugated metal pipe sections at Area T (DP-257). Two pipes and part of a third were filled with retrievable cement paste in an initial storage operation in late December.

Area T

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E. In December, a total of 4593 m^3 of Pu contaminated soil was received from the cleanup of the TA-1 area. Seven 210-ℓ drums of this waste were packaged and stored as retrievable TRU-waste. Through December 31, 1975, a total of 8259 m^3 has been received for disposal from this operation. sent to Pit 20, Area G

F. Digging was begun in late December on a new disposal pit for nonretrievable TRU-wastes. The pit will measure approximately 15 m wide by 122 m long by 8-11 m deep. Funding for the digging of this pit is coming from the TA-1 area cleanup budget. Pit 22, Area G completed 1-8-76

G. The existing disposal pit at Area A, TA-21, has been about 3/4 filled, and about 1/2 of the pit area has been backfilled to the original ground surface. Area cleanup work at TA-21 that resulted in the filling of this pit now has been essentially completed. Area A

H. Planning was continued to arrange for disposal by means of retrievable 20-year storage of waste containing 5-6 kg of ^{233}U. Packaging proposed for this waste consists of 11 and 57 ℓ (3 and 15 gallon) drums sealed in concrete inside of 115 ℓ (30 gallon) drums. A description of this proposed packaging and storage method has been sent to ALO for concurrence.

I. The two 1.2 m diameter by 18 m deep shafts near the "Generals Tanks" were drilled in December. These are needed for proper handling and disposal of the wash water and solids that are generated in cleaning the hose following a pug mill run. Treatment of the "Generals Tanks" liquid waste was continued. Area A

III. Future Activities

A. Design work will continue on the Waste Management building at Area G, TA-54. A comprehensive study of the feasibility of installing a waste compactor-baler unit in the building (similar to the unit now operable at INEL, Idaho) was initiated. Detailed engineering specifications for the compactor-baler will be developed in coming months.

B. Installation of electrical power and telephone facilities into Area G will be completed in January assuming receipt of the necessary components currently on order.

C. Testing of fiber drums through actual use in the disposal of chemical treatment sludge will be continued. Some fiber drums having slight modifications over those used

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to date are or order for this purpose. Once this testing and evaluation is completed, specifications will be prepared for LASL purchase of drums for use on a continuing basis.

D. Routine retrievable storage operations will begin in January for the DP-257 generated cement paste. It is estimated that 50-60% of the paste generated will require storage, while 40-50% can continue to be buried in shafts as nonretrievable (<10 nCi/g). Analysis of each batch of liquid waste prior to treatment will determine whether storage or disposal is required. Area T

E. Cleanup efforts at TA-1 will continue to have major impacts on waste volume buried in January.

F. Weather permitting, the new waste disposal pit at Area G should be completed by mid-January. 1-8-76

G. Planning will continue to arrange disposal of ^{233}U waste at LASL.

H. Treatment through the pug mill at DP-257 of the "Generals Tanks" liquid waste will be continued. Area A

Sincerely,

Thomas K. Keenan
H-7 Group Leader
Waste Management

TKK:JLW:kr

Enc: Solid Radioactive Waste Inventory Summary

xc: William Crismon, Jr., ERDA/LAAO
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SOLID RADIOACTIVE WASTE INVENTORY SUMMARY

December, 1975

(Burial/Storage at Area G, TA-54 Unless Otherwise Specified)

(Volume in Cubic Meters)

	Transuranic >10 nCi/g*	Transuranic <10 nCi/g+	Uranium	Fission Product/Induced Activity	Tritium
Beginning Cumulative CY75 Inventory	486.9	4133.9	3619.4	98.8	29.1
Stored/Buried	100.3[a]	4681.4	44.2	6.0	1.2
Ending Cumulative CY75 Inventory	587.2	8815.3	3663.6	104.8	30.3

*(>100 nCi/g ^{238}Pu, >10 nCi/g ^{239}Pu)

+(<100 nCi/g ^{238}Pu, <10 nCi/g ^{239}Pu)

Notes: a. Breakdown:

5.6	Area T	(retrievable)
41.3	Pit 9	(retrievable)
53.4	Area T	(nonretrievable)
.015	Shafts	(nonretrievable)