7/2/73.

To: Lamar Johnson, H-8 Group Leader
Through: Joe Kerr, H-8
From: John Sutton, H-8
Subject: Solid Radioactive Waste Disposal Report for the Second Quarter of 1973

1339 Report

The report summarizes waste disposal activities for the second quarter of 1973. Some of the data presented is based on estimates and this should be kept in mind if any conclusions are drawn from the report.

Information or data was furnished by The Zia Company, PASL Accounting Dept., PASL Supply and Property Dept., H-7 Group and LA Notebooks #12442, 17845, 17336, 14909, 17338, 17337, 17339.

Procedures

A number of Standard Operating Procedures are due for review and/or revision. It has been decided to incorporate these Procedures into the Solid Radioactive Waste Management Manual that is now being prepared.

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Special Problems:

1. Several kilograms of ^{235}U residues are waiting disposal pending permission and guidelines from Dave Smith, P-5, on nuclear safety and criticality.
2. No decision has yet been made on how to handle the leaking sludge drums in pit #8.

3. The use of liners (removable) for bin-and shafts containing TRU (>10 nCi/g) material has been studied by Eng-2, but no further action has been taken, to date, due to lack of funds.

4. Crates and large pieces of equipment from the Bldg 12, DP West, demolition have been placed along the east side of pit #17 (TRU <10 nCi/g) as it appears the pit could be filled before another pit is available. A work order to have two pits excavated was submitted in May.

5. The frequent use of heavy equipment (D-8 tractors) at Area G has created a very real dust problem. The Tuff rock has been ground up to a consistancy of fine flour on the roads in Area G. A work order requesting use of waste oil to abate the dust has been submitted, but action has been delayed until a study is completed by Ray Garde, H-8, on the environmental impact of waste oil on the ground at Area G.

6. In order to reduce the weathering effect on plywood crates stored at Area G, it has been suggested the crates be painted. A cost estimate is to be made by Eng-4 for this job.

7. CMB-1 has requested retrieval of a 30 gallon metal drum, containing line generated trash, that had been buried for four or five years. A review of records showed that these drums had

8. The Hi-Vol air samplers used at Area G are being re-calibrated by H-5 Group. ~~The first two in the indicated air flow across HV-1, 8"x10" of 30 cfm or 0.85 m~~ H-1 Drum Section at TA-50 has been requested to repair these samplers.

7. (cont) south side of building Two, D.P. West. Thus, retrieval would be almost impossible. It is planned to deliver (to CMB-1) a drum stored in pit #5 containing ^{238}Pu trash from the Wing Wing clean up operations.

Proposals:

1. A proposal has been submitted to the Group Office for use of compactors at the CMR Bldg. This could reduce waste volume from this building by a factor of four or five.
2. A proposal has been made to the Group Office to have three small pits excavated between large filled pits at Area G. These pits could be used for ^{238}Pu storage, ^{235}U residue burial and T contaminated equipment burial.

Equipment

1. A PR was submitted for purchase of a fork lift for use at Area G. Only one bid was submitted that was below the total budgeted for capital equipment.
2. A used platform scales (PN 132907) was received from Salvage for use at Area G.
3. An order for 1,000 metal tags (PR 671664, 3/8/73) ~~has~~ ~~effectively~~ been closed out ~~although only 500 tags~~ ~~was~~ delivered on May 10, 1973. ~~H Div.~~ Property to:

4. Safety and Property Dept. has been requested to stock the 2"x3" metal I.D. tags, the 6"x6" metal I.D. tags as well as the labeling tape used to identify waste packages.

Reports

1. The Waste Management Site Plan for fiscal 1973 was prepared by Joe Herzog in June.
2. The FASF Waste Management Policy (rough draft) has been prepared by Joe Helvey in June.

Data Explanation:

Under items tabulated in "Disposal Costs", item #6 is an estimate as it is not listed in the Stock Catalogue. Items #10 and 11 are estimates based on previous reports from FASF Accounting. The balance remaining of the cost write-off for Road & Ruin excavation (item #13) as of July 1 is $2,583. For item #15, the balance remaining is $3,000. Fencing (item #16) has a remaining balance of $8,424 as of July 1, 1973.

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2nd Qtr. 1973

Packaging Materials	Apr.	May	June	Qtr. total
1. Small plastic bags	907	1,318	870	3,095
2. Large plastic bags	285	450	259	994
3. Boxes	2,644	2,735	1,938	7,317
4. Drums (55 gal)	134	117	117	365
5. Drums (30 gal.)	20	5	30	55
6. Drums (13 gal.)	0	0	2	2
7. Crates	19	29	17	65
8. Masking tape (rolls)	500	500	500	1,500

Disposal Costs:

1. Sm. plastic bags	$ 54	$ 79	$ 52	$ 185
2. Lg. " "	$ 51	$ 81	$ 47	$ 179
3. Boxes	$ 528	$ 547	$ 387	$ 1,462
4. Drums (55 gal.)	$ 1,441	$ 1,287	$ 1,287	$ 4,015
5. " (30 gal.)	$ 123	$ 31	$ 185	$ 339
6. " (13 gal.)	0	0	$ 10	$ 10
7. Crates	$ 4,850	$ 7,250	$ 4,250	$ 16,350
8. Tape	$ 500	$ 500	$ 500	$ 1,500
9. Zia Jointer	$ 4,660	$ 4,660	$ 4,660	$ 13,980
10. H-8	$ 3,800	$ 3,800	$ 3,900	11,500
11. Zia Labor	$ 1,128	1,269	1,200	3,597
12. Pro. Clothing	$ 100	$ 100	$ 100	$ 300
13. Rd & Rn excav.	$ 45	$ 45	$ 45	$ 135
14 Transport D.D.	$ 969	$ 1,202	$ 926	$ 3,097
15. Excav. 5 pits	$ 1,000	$ 1,000	$ 1,000	$ 3,000

(b)

	Apr.	May	June	Qtr. total
16. Fencing	406	406	406	1,218
17. Vehicles	80	80	80	240
18. Radios	55	55	55	165
19. Drill Shafts	—	—	—	—
20. Power drums	—	—	—	—

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	Apr.	May	June	Qtr. Total
Waste Volume (ft.^{3})				
I U Waste				
A. Pit #5				
1. TV Chips	48	0	48	96
2. Graphite	108	108	0	216
3. 30 gal. drums (4)	12	0	0	12
Pit total	168	108	48	324
B. Pit #16	0	0	0	0
C. Pit #21				
1. Boxes	1,219	2,611	1,652	5,482
2. Loose Material	3,343	2,603	898	6,844
Pit total	4,562	5,214	2,550	12,326
D. Disposal Shafts	5.5	67.3	0	72.8
U total	4,735.5	5,389.3	2,598	12,722.8
II TRU Waste				
A. Pit #5 (>10 nCi/g, ^{238}Pu)	8	128	7,557	7,693
B. Pit #8 (>10 nCi/g, TA-50 sludge)	0	0	0	0
C. Pit #12 (>10 nCi/g)				
1. Drums	72	98	18	188
2. Crates	0	0	4,114	4,114
	72	98	4,132	4,302
D. Pit #17 (<10 nCi/g)				
1. Plastic bags	1,140	1,800	1,036.0	3976.0
2. Boxes	4,598	3,405	2,611.0	10,614.0
3. Loose Material	1,957	1,028	18,653.0	21,638.0
4. Drums (30 gal.)	104	16	18.0	138.0
5. " (3 gal)	0	0	3.4	3.4
6. Crates (E. side of pit)	2,336	2,304	2,176.0	6,816.0
7. Crates	0	96	0.0	96.0

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	April	May	June	Qtr total
Pit 17 total	10,135	8,649	24,497.4	43,281.4
E. Disposal shafts	23	19.3	16.0	58.3
TRU total	10,238	8,894.3	36,202.4	55,334.7
III FP/LA (shafts)	10.1	9.0	3.0	22.1
Area G Total volume (FP/LA, U, Pu)	14,983.6	14,292.6	38,803.4	68,079.6
IV TA-50 drums to Area G (TRU>10 nci/g)	106	90	117	313.0
V Area T, TA-21 (TRU>10 nci/g Cement Paste)	1,746	2,783	1,938	6,647.0
VI Area A TA-21 (TRU, <10 nci/g)	0	0	6,000	6,000.0
TRU Total (Areas A, G+T)	11,984	11,677.3	44,140.4	67,801.7

Qtr: 2nd.

Yr.: 1973

Mass & Activity	^{235}U Grams	Total U Kgrams	^{239}Pu Grams	Curies U	TRU	FP/HA	T^2	Total Curies
April	99.0	1152.099	[illegible]	0.504	7.169	125.656	100.0	233.329
May	127.0	59.680	172.37	0.44×10^{-3}	13.26	31.7	1.0	45.9644
* June	8.7	1152.0087	55.7	0.5	3.416	46.0	0.0	49.9160
Qtr. Total	234.7	2363.7877	322.79	1.0084	23.845	203.356	101.0	329.2094

* = Does not include TA-50 sludge or Area T cement paste