

4/11/1957

MEMO

93

TO: Dean Meyer, Group leader, H-1

FROM: John Enders, H-1

SUBJECT: Quarterly Report on disposal of contaminated trash (from January 1 to March 31, 1957) into Pit #6, Area C.

SYMBOL: H-1

CARDBOARD BOXES:

From January 1 to March 31, 1957, there were 6,803 boxes taken to the Dump. Using 0.087 cubic yards per box, this gives a total volume of $(6,808 \times 0.087) = 592.296$ cubic yards.

The cost of the boxes used to contain trash is \$0.1408 per box. For 6,808 boxes the total for this quarter would then be \$958.57 $(.1408 \times 6,808)$.

BARRELS FROM W.T. LAB:

189 barrels were taken to the Dump during this same period. The total volume of barrels was determined by using 0.368 cubic yards per barrel and multiplying this by 189 or 69.552 cubic yards.

The same figure of \$2.60 per barrel is used for this quarter as was used for the 1956 report. For 189 barrels at \$2.60 each, this amounts to \$491.40 for barrels.

These barrels are used by H-7 for packaging contaminated sludge from the Waste Treatment Plant. These are picked up at the Waste Treatment Plant and taken to the Dump for disposal.

TOTAL VOLUME OF TRASH (Boxes plus barrels):

This adds up to $(69.552 + 592.296) = 661.848$ cubic yards. In addition to the boxes and barrels there have been numerous items of property placed in the Dump also. The volume of all of these items would very likely make the total trash volume close to 800 cubic yards for this period.

BACK filling at the Dump:

The Zia Roads Section has covered the Dump in the past at fairly frequent

1306
Report



intervals. This practice was stopped early this year. After considerable thought about it a decision was made to place a layer of trash the full length of the Dump and about $\frac{1}{2}$ the width of the Dump before covering. It is hoped that by this considerable saving in covering dirt can be made.

Measurements were made the first of the year of the remaining space in the Dump. Along the South wall, three depth figures were recorded. The average depth was 11 ft. from the filled in portion to the top of the ground. One layer of trash has been placed and covered along the South side since January 1, 1957. Depth measurements made on April 29, 1957, give figures of an average of 10 feet.

Due to a sunken area in the center of the Dump, a layer was started here (center portion) on February 15, 1957. On March 31, 1957, this layer had been alyed up to post #26. The layer was started at the East end of the Dump by post #48. This layer has not been covered yet. Its approximate length is 240 feet and is 29 feet in width. This gives an estimated 800 cubic yards. See the attached sketch which attempts to show graphically the trash disposal for this quarter.

The charge for back filling at the Dump, which includes wages, maintenance and heavy equipment charges, totals \$1,585.07 for this quarter.

MASKING TAPE:

Two inch masking tape is used to seal the boxes taken to the Dump. About 8 ft. of tape is used per box. For 6,808 boxes this would take about 302 boxes of tape (180 ft per box). At 67¢ per box the cost for tape would then be (.67x302) or \$202.34.

PLASTIC BAGS:

Polyethelene plastic bags, 2 mil thick and 13" x 12" x 24" are used to hold contaminated trash. George Ponton, H-7, informs me that about 4900 plastic bags have been issued during this quarter. Assuming 4500 bags have

been used, this gives a cost of \$243.00 for plastic bags (4500 x \$.054).

JANITOR COSTS:

In the 1956 report the cost of packaging contaminated trash was estimated. Using the same rate figures as were used for 1956 the cost amounts to \$7,202.52 ($\frac{1}{4}$ of \$28,810.08).

The packaging operation involves placing plastic bags in the waste cans, removing the filled bags and sealing them with masking tape. The bags are then put into cardboard boxes; the boxes sealed with masking tape and then set outside of the building to await pick up.

OPERATION OF REO TRUCK #5536:

This $1\frac{1}{2}$ ton truck is operated for the purpose of picking up contaminated trash and property for disposal at the Dump. All maintenance and operating costs are included in this report. From January 1, 1957 to March 31, 1957 the cost amounted to \$3,653.92.

The wages of the truck driver and one laborer for this period are also reported here as they worked full time on this job. The above figure was obtained from Dale Coburn, Eng-4.

OPERATION OF DODGE PICKUP #7849.

This pickup is used about $\frac{7}{8}$ of its time on the Dump run job. An H-1 monitor drives this vehicle behind the truck used to haul the trash. George Ragsdale, AO-1, reported to me a figure of \$152.94 for this quarter on above truck. This figure included gas, oil, maintenance, insurance and rental charges. $\frac{7}{8}$ of \$152.94 amounts to \$134.07.

MONITOR SUPERVISION OF TRASH DISPOSAL:

An H-1 monitor is used for supervision of the disposal of contaminated trash. This job takes about $\frac{7}{8}$ of his time. Using an hourly rate of \$2.50 per hour this amounts to \$1,137.43 for this quarter. In addition to actual wages paid, an overhead charge of $\frac{3}{4}$ of this amount is added on. This overhead amounts to \$853.08.

EXCAVATION COSTS FOR PIT #6:

In the 1956 report $\frac{1}{2}$ of the cost of excavation of Pit #6 was reported. For this quarter this cost would amount to \$1,802.78 which is $\frac{1}{4}$ of the remaining cost (\$7,211.14).

FENCING AROUND PIT #6:

This fence cost \$3,866.92. In 1956, 1/10 of this was charged, so for this quarter $\frac{1}{4}$ of this charge or \$96.67 ($\frac{1}{4}$ of \$386.69) is reported.

PROTECTIVE CLOTHING:

The Zia truck driver and laborer are required to wear full protective clothing while picking up and disposing of contaminated trash. Two complete changes per day are made. According to George Ponton, H-7 it costs about \$60.00 per man per year. For two men this would cost \$120.00 per year. For this quarter this cost would then be $\frac{1}{4}$ of \$120.00 or \$30.00. This figure is probably very conservative since there is not a way at present to determine the change room facility costs at the CER BUILDING.

TABULATION OF COSTS FOR 1st QUARTER OF 1957.

Cardboard boxes (6,808 @ \$0.1403 each).	\$ 958.57
Masking tape (302 rolls @ 67¢ each)	202.34
Plastic bags (4500 @ \$0.054 each)	243.00
Protective clothing (laundry charge)	30.00
Packaging trash (janitor charge)	7,202.52
Covering trash	1,585.07
Pickup trash	3,652.92
Operation of Dodge pick up #7849 (7/8 of total)	134.07
H-1 Monitor (7/8 of wages + 3/4 overhead)	853.08
Excavation of Pit #6 ($\frac{1}{4}$ of \$7,211.14)	1,802.78
Fencing ($\frac{1}{4}$ of 1/10 of \$3,866.92)	96.67
Barrels (139 barrels @ \$2.60 each)	491.40
	<hr/>
TOTAL	\$ 17,253.42

CONCLUSIONS:

If one divides the total cubic yards of trash picked up into the total costs (\$17,253.42 ÷ 662); the cost per cubic yard of trash amounted to about \$26.00 per cubic yard. The figure for the entire year of 1956 was \$23.27 per cubic yard.

Admittedly, several cost items in above tabulation are a bit uncertain. However, in preparation of a report covering one particular phase of lab operations, a line must be drawn somewhere. It is hoped that future reports can be made more specific and detailed.

As for future costs, there is good reason to believe that a reduction is possible. For example, the use of Dempster Dumpster boxes for hauling trash has been approved on a trial basis at the CMR Bldg., The equipment is on order but has not arrived.

Placement of trash in the Dump in an orderly manner and covering trash at less frequent intervals should help also in reducing costs and extending usage of each Pit.

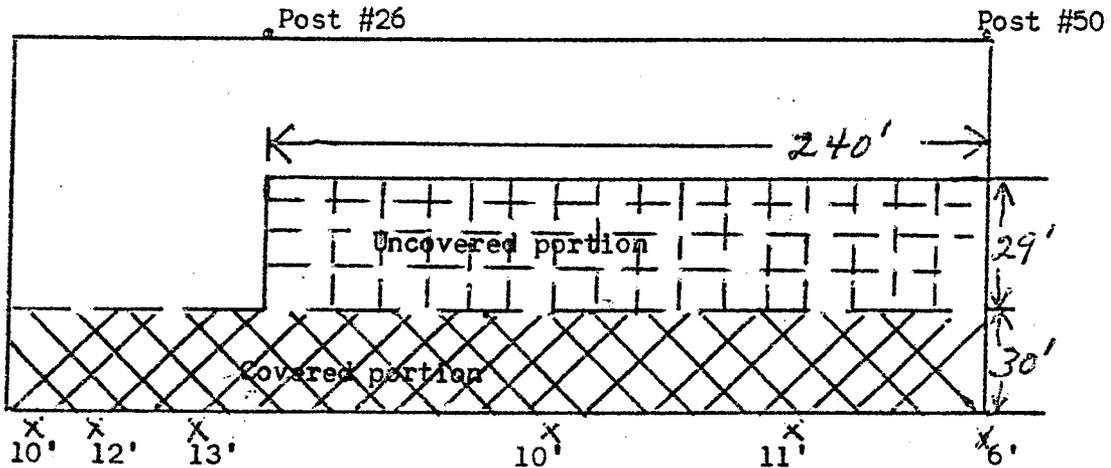
At the present rate of fill it appears now that Pit #6, Area C, can be used for three to six months more before it is filled.

Data for this report was supplied by Dale Coburn, Eng-4; George Ragsdale, AO-1; George Ponton and C. W. Christenson, H-7; Gilbert Garcia, Pascual Chavez and Virginia Josefson, H-1. L.A.S.L. notebook #3453 contains data on trash disposal operations covered by this report.

cc: Charles Reynolds, Eng-4
File



Sketch of Pit #6, Area C showing trash deposition for 1st. quarter of 1957



Above figures are measurements made on 4/29/57 from top of pit on South side to filled portion along south wall of pit. This represents an average depth of 10 feet along the South wall of the pit.