

MEMO
12/19/57

94

TO: Dean Meyer, Group leader, H-1
FROM: John Enders, H-1
SUBJECT: Quarterly Report on Disposal of Contaminated Waste from July 1, 1957
to September 30, 1957

GENERAL:

During this quarter all routine trash was delivered to Pit #6, Area C. Exposed material was covered twice. Current deliveries are being made to the 5th layer—South side.

1307
Report

Pit #1, Area G, is being used for holding the remains of "M" Building. The burnable portions of the building are being burned and the ashes and non combustible portions will be buried in this pit. Until post numbers have been placed along the edges of this pit, information as to what is buried here will be kept in a spiral bound notebook. After the post numbers have been placed, this information will be transcribed into a L.A. notebook. Eng-4 has supplied this office with cost figures for this Pit, fencing and road way. Since this pit has not yet been used for routine trash disposal, these cost figures will be presented in the annual report for 1957.

The use of Dempster Dumpster boxes at Wings #2 and #4 of the CMR Building for holding boxed trash has, thus far, been quite satisfactory. Some difficulty was experienced at first in attempting to unload the Dumpsters. However, the technique has improved now and no further difficulty has been reported.

Requests for more Dumpster boxes have been submitted to Eng-4. These additional boxes will be placed at Ten Site, Omega Site and by Wings #3, 5, and 7 of the CMR Building. The access doors of all Dumpster boxes are being painted with a sign worded "For radioactive trash only".

The cost of using Dempster Dumpster boxes is being watched closely. By the end of the year enough data should be available to be able to determine whether or not the use of these boxes is economical.



5 mil thick plastic bags are now being used in Wings #2 and 4 of the CMR Building in place of the 2 mil thick bags. The thicker bags are being placed into the Dumpsters without first being put into card board boxes. 1,000 of these 5 mil thick bags were purchased to try out. As of the date of this report they have been satisfactory. However, no conclusions can be made at this time. These bags are sealed with masking tape and a "Flowmaster" pen is used to write the wing number, building, and date on the outside of the bag. If the use of these bags appears to be successful; their use could substantially decrease the number of cardboard boxes used.

VOLUME OF TRASH TAKEN TO THE DUMP:

BOXES:

A total of 6,801 boxes were hauled to the dump. At 0.087 cubic yards per box, this would amount to 592 cubic yards.

BARRELS:

622 barrels were hauled to the dump from Waste Treatment labs. At 0.368 cubic yards per barrel this gives a volume of 622×0.368 229 cubic yards.

PLASTIC BAGS: (5 mil thick, 13" x 12" x 24")

There were only 63 plastic bags used this quarter. An estimated volume of 0.037 cubic yards per bag would give a total volume of 2 cubic yards.

OTHER TRASH:

During this quarter an estimated 51 cubic yards of material has been placed in the Dump.

DISPOSAL COSTS:

Pick up and delivery of trash:

This includes the maintenance costs for the $1\frac{1}{2}$ ton Reo truck, one Zia truck driver and one Zia laborer's wages. The costs per month are as follows: July: \$1,997.64; August: \$1,226.61; September: \$1,121.30. The total for this quarter is \$4,345.55.

REMOVAL OF TRASH IN TWO DEMPSTER DUMPSTERS:

These two boxes are located by Wings #2 and 4 of the CMR BUILDING. For August the charge was \$39.72 and for September the cost was \$23.83. Total for this quarter is \$63.55.

MASKING TAPE:

In order to seal 6,801 boxes and 63 plastic bags as well as using tape for sealing other items it is estimated that 314 rolls were used this quarter. At 57¢ per roll this amounts to \$178.98.

BOXES:

6,801 boxes at \$0.1408 cents each would cost \$957.58.

BARRELS:

The 55 gallon drums used for disposal of sludge from the Waste Treatment plants cost an estimated \$2.60 each. The total for this quarter would then be \$1,617.20 (622 x \$2.60).

PROTECTIVE CLOTHING:

Full protective clothing is required for the Zia truck driver and the Zia laborer as well as for the Zia Roads Section crew who back-fill the Dump. The estimated charge for this quarter is \$50.00.

JANITOR COSTS:

This is an estimate of the cost for the time needed by the Tech Janitors to package contaminated waste. Using the same estimate as was given in the first and second quarter, this amounts to \$7,202.52.

FENCING AROUND PIT #6:

The original cost (\$3,866.92) is being written off at the rate of 1/10 per year. In 1956 \$386.69 was charged so for this year (1957) a charge of \$96.67 ($\frac{1}{4}$ of \$386.69) is made each quarter. At the end of this quarter the balance left is \$3,190.22.

EXCAVATION COSTS:

\$1,802.78 is $\frac{1}{4}$ of the remaining cost (\$7,211.14) of excavating pit #6. By

the end of this year (1957) this cost will be written off.

H-1 SUPERVISION OF TRASH DISPOSAL:

\$1,990.50 is the estimated charge for this quarter. An H-1 monitor is used on this job about 7/8 of each day. The above charge includes overhead and wages.

PLASTIC BAGS: (13" x 12" x 24"-- 2 mil thick)

These bags are used as liners for trash cans that hold contaminated waste. These bags with the trash inside them are removed from trash cans, sealed with masking tape and then put into cardboard boxes for delivery to the dump. Supply and property issued 4,529 bags this quarter. Assuming 4,000 bags were used at a cost of \$54.00 per 1,000 this would amount to \$216.00.

BACKFILLING AT THE DUMP:

The pit was covered twice during this quarter. Charges for this work include equipment and wages as well as a standing charge of \$321.00 per month for the D-8 Caterpillar Tractor which is kept at the Dump. For July the cost was \$432.39; August: \$321.00 and for September \$717.25. The total for this quarter is \$1170.64.

H-1 VEHICLE (#0325- $\frac{1}{2}$ ton Chevrolet pickup).

This truck is used by the monitor who supervises trash disposal. The charges by the month for this vehicle are as follows: July: \$27.24, August: \$64.20, and September: \$48.15. Since the vehicle is used on this job 7/8 of each day the total charge is 7/8 of \$139.58 or \$122.14.

5 mil THICK PLASTIC BAGS:

1,000 of these bags were ordered for use on a trial basis in Wings #2 and 4 of the CMR Bldg., They replace the 2 mil bags used as liners in trash cans. When full they are removed, sealed and placed in the Dempster Dumpster boxes outside each wing.

H Division Property office informs this office that these bags cost \$143.50 per 1,000. During this quarter 63 bags were sent to the Dump. 63 x 0.1435 (cost per bag) amounts to \$9.04.

CONCLUSION:

The estimated total volume of contaminated trash put into the dump during this quarter was 874 cubic yards. The total estimated cost was \$19,823.15. By dividing the total cost by the total volume a figure of \$22.68 per cubic yard of trash is obtained. For the first quarter the cost was \$26.00 per cubic yard and for the second quarter \$24.19 was the cost per cubic yard.

TABULATION OF COSTS:

1. Boxes (6,801 @ 0.1408 cents each)	\$	957.58
2. Barrels (622 @ \$2.60 each)		1617.20 <i>pl for log #7</i>
3. Masking tape (314 rolls 2 inch wide @ 57¢ roll)		178.98
4. Pick up and delivery of trash		4,345.55
5. Unloading two Dempster Dumpster boxes		63.55
6. Protective clothing		50.00
7. Packaging trash (Zia Janitor service)		7,202.52
8. Fencing around Pit #6		96.67
9. Excavation of Pit #6		1,802.78
10. H-1 Supervision of trash removal		1,990.50
11. 2 mil plastic bags (4,000 @ \$54.00 per 1,000)		216.00
12. Back filling at Dump		1,170.64
13. Vehicle used by H-1		122.14
14. 5 mil thick plastic bags (63 @ .1435¢ each)		9.04
		<hr/>
Total for this Quarter:	\$	19,823.15

cc: File
Charles Reynolds, Eng-4