

Office Memorandum • UNITED STATES GOVERNMENT

TO : P. C. Aebersold, Director, Isotopes Division DATE: August 26, 1954

FROM : L. D. MacKay, Director of Finance

SUBJECT: CARBIDE'S PRICING POLICY FOR RADIOISOTOPES

BEST COPY AVAILABLE

SYMBOL: AFI:EAF

Attention: C. E. Crompton

Pursuant to the request made in your memorandum of July 28, 1954, we have reviewed the pricing policy now in effect at ORNL, for the sale and distribution of radioisotopes.

From our examination we noted that four primary functions contribute to radioisotopes production and distribution, namely,

1. Reactor Production
2. Chemical Processing
3. Control and Sales Promotion
4. Packing, Crating, Shipping.

Under the present policy, ORNL is endeavoring to have sales cover "out-of-pocket costs," that is, to recover costs of final preparation. Individual radioisotopes are not necessarily priced to recover "out-of-pocket" costs; lower cost items such as radioactive Iodine 131 and Carbon 14 may be sold at higher than cost to permit lower prices on more costly irradiated materials. Consequently, some radioisotopes are being subsidized by other radioisotopes sales, since the program as a whole is self-sustaining. The income from sales of radioisotopes and the "out-of-pocket" costs for the past three fiscal years as taken from sales and cost accounting reports prepared by Carbide based on currently-used accounting procedures are shown below:

FY Ended June 30	Sales and Distribution Credits	"Out-of-Pocket" Costs	Difference Profit	Millicurie Sold
1952	\$1,163,017	\$1,004,857	\$158,160	10,110,332.05 MC
1953	1,117,564	1,012,089	105,475	5,266,059.08 MC
1954	1,530,670	1,327,732	202,938	9,879,420.15 MC
Average for three years	1,270,417	1,114,893	155,524	8,418,603.76 MC

REPOSITORY

Texas A&M Archives & Special
Collections

COLLECTION

Paul Aebersold Papers

BOX No.

1

FOLDER

General Correspondence - 1954

1103986

The "out-of-pocket" costs shown in the above tabulation comprise the following elements of costs:

1. Costs of production, that is, direct labor charges applied to the operation of equipment or machinery used in the production or processing of radioisotopes, direct material costs entering directly into the processing even though not becoming part of the final product. Excluded from production costs are:
 - a. Cost of uranium slug or value of waste solution used for starting material.
 - b. Cost of irradiation hours furnished by other AEC installations.
2. Plant burden which includes such costs as maintenance and repairs, rebuilding and rearrangement, supervision, engineering services, protective clothing, janitorial services, security and cafeteria services, utilities, equipment decontamination, etc. Excluded from plant burden and "out-of-pocket costs", are depreciation charges for amortizing the investment in plant and equipment.
3. Process and equipment development, excluding fundamental research done by the research staff.
4. Sales and promotion expenses which includes such costs as preparation of radioisotope sales price catalog, preparation of data and reports relative to the sale and distribution of radioisotopes, arranging for and scheduling reactor operations and shipments of radioisotopes, costs of containers, packing, etc., used in the shipment of radioisotopes.
5. Health physics which includes costs for personnel and area monitoring, radiation surveys, etc.
6. General and administration expense which includes such costs as Laboratory Director's department, general accounting, purchasing, telephone and telegraph, insurance, etc. Excluded are AEC costs of supervision and administration of the radioisotope program.

If recently approved recommendations by the Commission concerning charges for work or services undertaken by AEC facilities are interpreted to mean full recovery of all costs, including direct

and indirect operating costs, depreciation expense, sales and promotion expense, research and development costs, general and administrative expenses (including AEC's) and profit, then the following cost elements with estimated amounts when available are the ones not included in the present "out-of-pocket cost."

1. Cost of uranium slugs from which radioisotopes are produced. We could not ascertain the cost of uranium used to produce radioisotopes. Based on information obtained through the Production Division, the cost of fabricating uranium slugs used in the ORNL reactor (excluding cost of uranium and depreciation) is estimated to be as follows:

Labor	\$281,278
Material	203,133
Burden	180,254
	<u>\$664,665</u>

During the fiscal year 1952 there were 95,000 slugs fabricated of which 35,500 slugs were rejects, leaving 59,500 slugs available for use. Based on these fabricated units, the cost per unit for gross volume is \$7.00, for the completed units the unit cost is \$11.17.

2. Value of waste solution used for starting material in the production of radioisotopes. Discussions with personnel familiar with this item disclosed that data is not available to determine even the approximate cost for this waste solution.
3. Depreciation expense for completed plant and equipment used in the production, processing and distribution of radioisotopes (including joint facilities, e.g., reactors, stacks, tank farm, office and reactor buildings but excluding common facilities such as roads, walks, fences, water and sewer systems, etc.). This cost has been estimated to be approximately \$155,000 per year.
4. Costs of basic or fundamental research relative to radioisotope production and usage. This cost has been estimated to be approximately \$185,000 per year.
5. Costs of hours taken up in a reactor for irradiation at other AEC installations. Discussions with personnel familiar with this service revealed that data is not available in Oak Ridge to determine the approximate cost for this item.

August 26, 1954

6. AEC costs for the supervision and administration of the radioisotope program, as well as a provision for reasonable profit. Based on information furnished by the Isotope Division, we estimated AEC costs of supervision and administration plus a reasonable profit to be as follows:

Promotion	\$ 41,000	
Licensing	110,000	
Control	<u>113,000</u>	\$264,000
Unallocated overhead of AEC, Oak Ridge and Washington Offices, plus profit (computed at 15% of Contractors' "out- of-pocket costs" plus \$155,000 estimated for depreciation).		<u>222,410</u>
		<u>\$486,410</u>

The figures used in this memorandum have not been audited but were derived from the most reliable sources available. If we can be of further assistance to you on this subject, please feel free to call upon us.

L. D. Mackay

Fitzgerald:vhs