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CIVIL DIVISION

UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D C 20548

BEST DOCUMENT AVAILABLE

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JAN 3 0 1969

Dear Mr. Airis:

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We have completed our review of the/testing and research activities of the Materials Development and Research (NDR) Division, Department of Highways and Traffic, District of Columbia Government. This work consisted of examinations into selected Division functions, records, reports, documents, and files. The results of the work, discussed with division representatives and, for the most part also with you, are presented herewith for your reference and consideration.

ACCOUNTING FOR COSTS

We noted that the MDR Division's payroll costs for 1967 were charged about two-thirds to "overhead" and one-third to other classifications, most of which encompassed general work or programs. This method does not seem to promote the development of output costs that could be associated with units of testing and research in order to provide accounting information that, in our opinion, would best contribute to the effective management of the Division's programs.

The Division's payroll costs for fiscal year 1967 were charged to "overhead" and other classifications as follows:

Category	Payroll cost	Percent
Overhead Interstate roads Primary roads Secondary roads Specific research projects Miscellaneous (13 categories)	\$139,100 27,624 11,331 12,256 16,480 <u>1,634</u> \$208,425	66.7 13.3 5.4 5.9 7.9 .8 100.0
Miscellaneous (13 categories)	\$ <u>208,425</u>	<u></u>

In discussing this accounting treatment with us, the Chief of the Department's Office of Business Administration stated that a new classification of costs had been developed and tested. A copy of this new format was furnished us on August 6, 1968.

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The following five classifications of the new format and the amount of expense charged to each, the total of which accounted for almost twothirds of the Division's 1967 expenses, indicate that classifications, "although improved, continue to be general.

Materials Control	\$	75,725
Administration	1	46,066
Material Research		17,796
Record sampling and testing		16,434
Review of plans, specifica- tions and special provi-		i.
sions ·		10,377
λ (1	66,398
Other classifications	-	99,337
Total 1967 expense	\$Ž	6 5, 735

The new format and classifications seem to reflect the testing and recearch functions of the Division somewhat more clearly than do the preceding classifications. However, further refinement in classifications may be possible that would provide additional very useful information for management. For example, some of the five general classifications appear to rombine a variety of tests and projects while some of the approximately 30 remaining classifications appear to be very limited in scope.

""" We plan to consider the matter of cost classifications for MDR Divi-"" sion activities further in connection with our general review and approval of the accounting system for the District of Columbia Government. We look forward to working further with you on this matter.

ASPHALT CEMENT TEST REQUIREMENTS

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The requirement of the Department of Highways and Traffic that certain daily and weekly tests be made of asphalt cement may not be needed in view of other required procedures and means of achieving quality control of the insterial. We believe that the Department should consider reevaluating its asphalt cement testing requirements.

The District's McMillan Reservoir bituminous laboratory makes daily penetration tests of the asphalt cement used by each asphalt mixing plant producing asphalt mixes for District road construction projects. The National Bureau of Standards (NBS) makes a series of asphalt cement tests weekly (including the penetration test). The NBS tests are similar to tests that the Department's regulations require be made and certified to by the supplying refineries for each shipment of cement delivered to the "mixing plants. The refinery certificate covering each delivery is forwarded to the Department and a sample of each delivery is sent to the bituminous laboratory where it is held pending a possible need for additional testing.

We visited a mixing plant that was supplying sophalt for District projects and found that, in addition to the testing, certain conditions at the plant also help ensure the quality of asphalt cement. The plant that we visited followed the practice of storing only one penetration grade (85-100) of asphalt cement, which, we understand, is a general practice in the Washington area. Also, we found that the storage of cement at the plant is of short duration since the plant's asphalt cement inventory turns over approximately every 10 days. The chief plant inspector said that this turnover is generally comparable to cement inventory turnover at other area plants. We understand that, normally, asphalt cement does not deteriorate within 30 days following delivery to the mixing plant.

It appears to us that the virtual exclusive use of a single grade of coment, the refinery certificates, the District inspector's sampling of all deliveries, and the short storage period go far toward providing quality control of the cement. Under these circumstances, we believe consideration should be given to discontinuing either the daily penetration test, the weekly NBS series of tests, or both.

You have advised us informally that the matter would be studied and that any test found to be not essential to providing quality control over the material would be discontinued.

REDUCED TESTING OF ASPHALT MIXES

Our review showed that, for job control purposes, District inspectors working at asphalt mixing plants made certain tests of asphalf mixes and that NBS also tested the same asphalt mixes for the District. We noted that this testing practice had been followed since about July 1961. We informed you that the practice appeared to result in dual testing.

We understand that the testing by NBS has now been discontinued, except as deemed necessary to provide verification of the reliability of the Department's field testing.



' ' We Wish to acknowledge the cooperation extended to our auditors by Department of Highways and Traffic representatives We are available to discuss the matters herein mentioned, if you so desire We shall apprecise being advised of such further actions as may be taken on the ' P matters reported

Sincerely yours,

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V L. Hill Assistant Director

Mr. Themas F Airle Director, Department of Highways , and Traffic District of Columbia Covernment Washington, D C. 20004

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