

sisting of four buildings being constructed in Washington. Contracts for the three projects totaled about \$75.7 million including about \$20.3 million for concrete placements at the sites.

The review disclosed that inspection procedures of the General Services Administration did not insure compliance with contract specifications in regard to water content of concrete delivered to one of the construction sites. Yet, the water content of concrete has been shown by authorities cited in our report to be one of the most critical factors in obtaining quality concrete. Our report recognizes that, although the concrete placed met strength requirements, the quality of concrete included but was not limited to characteristics of strength. The review at this site disclosed also discrepancies in the use of curing compound and in the performance of concrete testing.

Inspectors at the other two building construction sites appeared to be exercising reasonable inspection practices to help insure that the delivery and placement of concrete in the basement slab and foundation footings met contract specifications.

We informed the Administrator of General Services that, on the basis of our review, we believed that the quality of on-site inspection varied between construction sites. We advised him of our belief that the inspection weaknesses discussed in this report could have been avoided had the agency's regional headquarters officials exercised greater supervision over inspectors at the site. We presented certain policy and procedure matters which we believed would have applicability to agency construction in general.

The Deputy Administrator agreed that vigorous and continual on-site inspection is the primary means of control to help insure that concrete in public buildings complies with prescribed design for all of its qualities. He observed, however, that ordinary observance and the use of the tests provided for in the specifications normally are adequate.

The Deputy Administrator concurred in our proposals that frequent, systematic reviews and evaluations of on-site construction inspection should be made and recorded standards for on-site construction inspectors should be improved. He advised that a project had been started to improve recording standards and that greater emphasis was being placed on evaluation of on-site construction inspection by the regional and central office inspection and engineer groups.

The Deputy Administrator also concurred in our proposal that laboratories engaged in testing concrete should be directly responsible to the Government rather than to the contractor. He advised that the requirements were being changed to provide for this.

[Index No. 13—B-161027, May 25, 1967]

REVIEW OF SUBSURFACE EXPLORATION FOR AND DESIGN AND CONSTRUCTION OF FOUNDATIONS OF PUBLIC BUILDINGS—PUBLIC BUILDINGS SERVICE, GENERAL SERVICES ADMINISTRATION

In a review of contracts awarded under provisions of the Public Buildings Act of 1959 in amounts in excess of \$2 million each for buildings under construction on June 30, 1963, we found that, in 15 out of 28 buildings, the Government had encountered construction difficulties