

# ACTUAL CONSTRUCTION OF HOOVER DAM TO BE STARTED BY APRIL 15TH

Combined Revenue from Power and Water to Pay  
For Mammoth Project Within 34 Years; 2,565  
Days Allowed to Erect 727 Foot Structure;  
Successful Bidders Considered Competent

(Associated Press Leased Wire.)

DENVER, March 5.—Opening of bids here yesterday on the general contract for Hoover dam and power plant brought the giant engineering project within one step of actual construction.

Plans and specifications for the dam and power plant were announced last December 15 by Raymond F. Walter, chief engineer, and were approved by Wilbur. Work will be started April 15 and the contract specifies the project must be completed in 2,565 days. While regarded as a \$165,000,000 project, Hoover dam expenditures probably will reach \$300,000,000 with additional funds spent by various states.

The states directly concerned with the project are Colorado, Wyoming, Utah and New Mexico, comprising the upper basin, and Nevada, Arizona and California of the lower basin.

The damsite is on the Colorado river, forming a boundary between Arizona and Nevada. The river drains an area equal to the combined New England and middle Atlantic states, with Ohio and Indiana added. The river and its tributaries irrigate 800,000 acres in Colorado alone. The Colorado during floods exceeds 200,000 cubic feet a second, and at low tide its flow is sometimes only 1,200 cubic feet.

Approximately one-third of the expense of the project will be for machinery. Plans called for the expense of \$70,600,000 for the dam and reservoir; \$38,200,000 for power development; \$38,500,000 for the all-American canal; \$17,700,000 for interest during the construction period.

The combined revenue from power and water is expected to pay for the project in 34 years. The Colorado river act as passed by congress specified the project be self-sustaining. Other provisions of the act said it should control floods and regulate the flow of the Colorado; store water and deliver it for reclamation of public lands; provide an all-American canal to divert water from the Colorado at Laguna dam or other suitable point and deliver it to the Imperial and Coachilla valleys in California, and provide electrical energy to be sold by the government.

The reclamation bureau began its study of the river in 1910. It has designed a dam to be 727 feet high from the canon floor; 650

feet thick at the bottom; 45 feet thick at the top, and 1,180 feet in length. Five million cubic yards of cement will be used in the construction. The foundation will be driven 120 feet below the river bed. The dam's capacity will be 30,000,000 acre feet of water and the length of the lake behind the dam will be 100 miles.

The basin will be 10 times as great as any existing reservoir in the United States.

Within 1,965 days the dam must have reached a height of 427 feet to permit the generation of power. The power plant foundations are to be constructed in 1,600 days.

S. O. Harper, the government's chief construction engineer, said the low bid was very satisfactory from the standpoint of the bureau of reclamation. He said there was no doubt as to the ability of the Six Companies, Inc., to carry through the undertaking.

The low bidding company was organized especially for the Hoover dam job, Mr. Harper said, by Frank T. Crowe, who acts as its general manager. Mr. Crowe until a short time ago was connected with the bureau of reclamation and was in charge of several government projects in the west, among them the Deadwood dam in South Dakota, recently completed, and the Guernsey dam in Wyoming.

The three bids will be sent by mail within 48 hours to Dr. Elwood Mead, commissioner of reclamation, with a recommendation. If Commissioner Mead approves the recommendation of the reclamation officers here the bid will be submitted to Secretary Wilbur for approval.

Actual construction work will start by April 15, Mr. Harper said. The contract calls for the start of work no later than 30 days after the bid has been accepted.

Preliminary work will be started on the construction of four tunnels which will divert the Colorado river 4,000 feet, and then work will be undertaken on the upper and lower coffer dams.

The contract does not include the cement to be used. This will be furnished by the government. The successful bidder's figure will be doubled through expenses to the government in the construction, as the machinery for the power plant and other works alone

(Continued on Page 3)

(Continued from Page 1)

will cost approximately \$23,000,000.

Congress appropriated approximately \$108,000,000 for the construction of the dam and power plant. The entire Boulder canon project as approved by congress, amounts to \$165,000,000, and in it is included provision for the all-American canal and interest on money during the seven-year period of construction.

Government engineer said they were not surprised that only three bids were submitted. The high bond and inability to make satisfactory banking arrangements shut out several prospective bidders.