The paper is an overview of nationwide testing results demonstrated by pulse-discharge technology piles exposed to the vertical load under conditions of soft soils of Tunis coastal area. Bored cast-in-place piles are constructed through the employment of the pulse-discharge technology (PDT). In the construction norms of France, PDT piles are classified as bored piles, which are cast-in-place using a hollow stem auger; they are reinforced, and their diameter exceeds 25 centimeters. PDT piles are made through the application of high pressure to the surrounding soil in the course of concreting.

Photos of testing facilities are provided in the paper. Graphs of cyclic and experimental load testing of piles, complying with the values of design loads for a 10-storey building under construction, are analyzed. The findings obtained by the authors have proven a considerable growth of the PDT pile bearing capacity in comparison with the analytical solutions obtained in accordance with Russian and French construction norms and regulations. It is pointed out that the results of pressuremeter testing can be reasonably used in calculations as stated in the French norms. Negligible pile settlements and the high value of the bearing capacity of piles prove the expediency of employment of this technology in the course of construction of piles in the soft soils of the Tunis shoreline. It is concluded that further elaboration of the PDT pile calculation technique is required.

Key words: pulse-discharge technology (PDT) piles, static load testing, bearing capacity, vertical static load, soft soils, pressuremeter testing.

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