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Finding suitable construction materials reasonably close to the construction site remains a problem. An August report states that up to 45,000 unfired bricks made of locally available red clay were produced daily in the first construction section of the Takhia Tash Construction Sector and up to 12,000 in the second section.(4) The Sultanizdagskiy Construction Sector has fulfilled the 1951 plan by producing 1.5 million bricks.(5) However, a report of February 1952 indicates that Professor Skramtaye, a Moscow scientist, and Engineer Orlyankin, his assistant, were on the construction site to introduce the substitution of coarsely porous concrete for bricks because of the shortage of suitable clay for making the latter.(6) In addition to the raw materials previously found in the Sultan-Uiz-Dag mountains on the right bank of Amu Dar'ya some 100 kilometers from the Takhia Tash construction site, (7) enough marble and limestone to supply the whole project with lime have been discovered.(8) Contrary to previous reports, the sand of the Kara-Kum desert can be used in making silicate bricks which have been proved equal to the best silicate bricks in existence.(9)

On 21 October 1951, K. Satpayev, president of the Academy of Sciences Kazakh SSR, stated that the problem of finding suitable sand for concrete work had at last been solved by the academy's Institute for Fireproofing and Construction Materials. A small increase of cement in the concrete allows the use of fine Kara-Kum sands in the mixture. Samples of concrete mixed according to this method withstood all the tests required.(10)

The planned Takhia Tash hydraulic center will consist of an earthen dam, a concrete spillway, a powerhouse, concrete structures for the entrances to the two existing irrigation canals, Imani Lenin and Kyz-Ketken, embankments, aqueducts, a navigable lock, settling reservoirs, and the first section of the Main Turkmen Canal.(11) The settling reservoirs will be built to prevent silt from going into the canal. Amu Dar'ya carries down about 300 million cubic meters of silt annually.(12) A large scale model of the settling reservoirs is being built for testing purposes.(13)

At first, the canal will be dug to pass from 350 to 400 cubic meters of water per second; it will eventually be enlarged to pass 600 cubic meters per second. From Takhia Tash, the canal will run in a southwestern direction and enter the desert of Zaunguzskiy Kara-Kumy. By-passing the Sarakamysh depression on the east, the canal will enter the ancient bed of the Uzboy River near the well in the Charyshli Oasis which is 300 kilometers from Takhia Tash. After running through the Uzboy bed for 600 kilometers, the canal will leave it near the Keikop salt marshes and run for 200 kilometers to the Caspian Sea.(14)

The engineering, geological and other surveys will be intensified in 1952 along the entire length of the canal. More than 20 large expeditions were active on the canal site as late as October 1951.(2) The surveying parties were on the job again in February, because spring weather had set in a month earlier than usual. It is expected that in 1952, 30 scientific expeditions consisting of 5,000 persons will be active on the canal site.(15) One of them, a new geophysical expedition organized in January by the Ministry of Geology USSR has arrived at Tashauz, headed by A. Simernitskiy, the acting chief. The expedition will investigate seismic and tectonic conditions on the canal site. An aeromagnetic survey of an area of 70,000 square kilometers, and seismographic geophysical, electric geophysical, and gravimetric explorations will be carried out in an area of 30,000 square kilometers.(16)

A meeting of the committee to assist the construction of the main Turkmen Canal took place on 10 September and was attended by Eristov, the chief engineer of the construction; Tagan Berdyev, president of the Academy of Sciences Turkmen SSR; Popova, Deputy Minister of Health, Turkmen SSR; Natko, representative of the Ministry of Communications USSR at the Council of Ministers Turkmen SSR; Berdyev, chairman of the Presidium of the Turkmenbirleshik /Turkmen

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Cooperative Union⁷, and others. The attention of the members was drawn to the duplication of work resulting from the failure of the Academy of Sciences Turkmen SSR to coordinate the activities of the numerous expeditions working on the canal site. It was also reported that the problem of providing the expedition workers with medical, cultural and educational services has not yet been solved.(3)

SOURCES

1. Tashkent, Pravda Vostoka, 27 Oct 51
2. Ashkhabad, Turkmenskaya Iskra, 7 Oct 51
3. Ibid., 11 Sep 51
4. Ibid., 26 Aug 51
5. Frunze, Sovetskaya Kirgiziya, 3 Nov 51
6. Vechernyaya Moskva, 16 Feb 52
7. Moscow, Izvestiya, 12 Sep 51
8. Pravda Vostoka, 14 Dec 51
9. Turkmenskaya Iskra, 22 Sep 51
10. Pravda Vostoka, 21 Oct 51
11. Ibid., 10 Oct 51
12. Moscow, Trud, 12 Sep 51
13. Leningradskaya Pravda, 31 Oct 51
14. Moskovskiy Komsomolets, 12 Sep 51
15. Sovetskaya Kirgiziya, 5 Feb 52
16. Turkmenskaya Iskra, 15 Feb 52

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