THE ROLE OF INTERNATIONAL COOPERATION IN THE DEVELOPMENT OF THE MUBARAK GAS PROCESSING PLANT

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Annotation. *This article provides information on the development of the Mubarak Gas Processing Plant, which occupies an important place in the oil and gas industry of our country, as a result of international cooperation in the late 20th and early 21st centuries. The data on the plant's international cooperation ties are substantiated by factual evidence.*

Keywords: *Mubarak Gas Processing Plant, Kashkadarya gas industry, international cooperation, foreign investment, advanced technological equipment, Kokdumaloq gas field.*

The rapid development of the oil and gas extraction and processing sector in our republic coincided with the years of independence. The share of oil and gas produced in the country accounts for 96% of the primary energy resources supporting Uzbekistan's economy. The foundation of Uzbekistan's oil and gas potential is largely concentrated in the Kashkadarya region[1].

In the early years of independence, the Republic of Uzbekistan chose its own path of modern development and established a multi-sectoral economic system. Within this system, the oil and gas industry became one of the most important sectors of the national economy. During this period, the introduction of foreign investments and technologies played a crucial role in the development of the industry. During the years of independence, the Kashkadarya region became one of the fastest-growing areas in the country's fuel and energy sector. Over time, new capacities were established in unitary subsidiary enterprises such as "Muborakneftgaz," "Shurtanneftgaz," and the Mubarak Gas Processing Plant. Large enterprises such as the Shurtan Gas Chemical Complex and the Tallimarjon Thermal Power Plant were commissioned. Today, each of them contributes significantly to the development of the national economy.

From the early years of independence, the Mubarak Gas Processing Plant established cooperation with leading foreign companies to modernize its technical equipment. In November 1991, John Hagison, operations manager of the American

[1] Uzbekneftegaz Joint Stock Company. (n.d.). Official data and reports.

company “Laroche Chemicals” based in Baton Rouge, Louisiana, visited the plant. A 700-ton catalyst from this company was installed at the plant. The effective use of this catalyst helped prevent the release of harmful substances such as hydrogen sulfide and sulfur dioxide into the atmosphere. John Hagison also provided information to local workers about the operation of this equipment and visited historical monuments in the city of Shahrisabz[2].

In addition, the Canadian company “Western Research” established cooperation with the Mubarak Gas Processing Plant. In 1991, five roller analyzers worth a total of 1 million US dollars were purchased from this company. These analyzers made it possible to extract up to 99% of sulfur from gas. Representatives D. Seyms and R. Hauer from this company and its Moscow-based representative office “Nyutek” conducted a two-day seminar at the plant[3].

In 1996, Block 15 was launched at the plant. Every year, 30 billion cubic meters of gas were purified and delivered to consumers. In the same year, 620 thousand tons of condensate and 321 thousand tons of sulfur were extracted from gas. Part of the produced condensate was exported to the USA, the UK, and Malaysia, while sulfur was exported to Russia[4]. The revenue from these exports was used to purchase unique equipment for the plant. These facts show that consistent international cooperation played an important role in the plant’s efficient operation. In July 1997, the Kokdumaloq compressor station was presented. This station was constructed by the American company “Kellogg” and the Japanese corporation “Nisho Iwai,” with compressors installed by “Dresser Rand.” The station increased the condensate extraction rate from gas from 25% to 70%. The project was financed by the Export-Import Banks of the USA and Japan. The opening ceremony was attended by Ken Allen, President of “Dresser International,” and US Ambassador Stanley Escudero[5].

In September 2004, the joint venture “Kokdumaloq-Gaz” was established on the basis of the Kokdumaloq oil and gas condensate field in cooperation between Uzbekistan, Switzerland, and the United Kingdom. The company focused on the extraction, processing, and transportation of natural gas.

In 2006, the second phase of the project aimed at utilizing and processing associated gas from the Kokdumaloq field was completed by the Uzbekistan–Switzerland joint venture “Kokdumaloq-Gaz.” The Swiss company “Zeromax” won the international tender in 2004 to implement this project. Within the first phase, in

[2] Qashqadaryo Haqiqati Newspaper. (1991, November 7).
[3] Qashqadaryo Haqiqati Newspaper. (1992, July 2).
[4] Qashqadaryo Haqiqati Newspaper. (1997, March 12).
[5] Kashkadarya Regional State Archive (KVDA). (n.d.). Fund 835, inventory 1, file 77, sheets 2–3.

late 2005, a gas processing station with a capacity of 1.3 billion cubic meters per year was launched[6].

On August 17, 2006, the unitary enterprise "Muborakneftgaz" received a prestigious certificate confirming the implementation of a quality management system that meets ISO 9001:2000 international standards[7]. In the first half of 2012, the joint-stock company "Uzbekneftegaz" completed the modernization of the Mubarak Gas Processing Plant in the Kashkadarya region with an investment of 171.8 million US dollars. The newly launched units helped solve gas processing issues at the Khauzak-Shady site in the Bukhara region, developed under an agreement between Uzbekistan and LUKOIL[8].

In May 2012, during the visit of a delegation from the M.V. Frunze Scientific-Production Association in Sumy (Ukraine), issues related to the production of modern equipment for the fields under "Muborakneftgaz" were discussed. Negotiations included the supply of high-tech equipment for the compressor station at the Janubiy Kemachi field and other facilities[9].

In 2012, another major investment project was implemented at the Mubarak Gas Processing Plant in cooperation with Singapore's "Indorama Group." A gas chemical complex with an annual production capacity of 500,000 tons of polyethylene was planned, with an investment of 100 million US dollars. According to the national Investment Program, the total project cost exceeded 2.5 billion US dollars. In addition, the volume of foreign direct investment allocated by the foreign partner to this project, which was planned to be implemented by 2015, amounted to 50 million US dollars in 2012. At the same time, prospective development plans continued to be implemented at the Mubarak Gas Processing Plant[10].

Under the Presidential Decree of March 4, 2015, aimed at modernization and diversification of production, numerous investment projects were implemented in the fuel-energy, chemical, petrochemical, and metallurgical industries[11]. In accordance with this Decree, 124 investment projects aimed at the modernization, technical, and technological renewal of production in the fields of geology, the fuel and energy

[6] Qashqadaryo Newspaper. (2007, January 30).
[7] Temirov, B. (2006, September 12). Muborakneftgaz's international certification. Qashqadaryo Newspaper.
[8] Mubarak Gas Processing Plant. (n.d.). Current archival materials.

[9] From Ukraine to the South Kemachi field. (2012, May 19). Uzbekistan Fuel and Energy Journal.

[10] Mubarak Gas Processing Plant. (n.d.). Current archival materials.

[11] President of the Republic of Uzbekistan. (2015, March 4). On measures to ensure structural transformation, modernization, and diversification of production for 2015–2019. Retrieved from Lex.uz

sector, chemical, petrochemical, and metallurgical industries were approved. In addition, 48 investment projects involving foreign investors were identified for implementation. At the Mubarak Gas Processing Plant, projects included establishing a gas chemical complex, producing plastic products, and purchasing high-tech equipment[12]. Within the 2019 Investment Program, construction of the fourth line of a propane-butane mixture production unit was completed, with an annual capacity of 38,000 tons of liquefied gas. Within the framework of this project, with a total investment value estimated at 73 million US dollars, 60.7 million US dollars were disbursed during the reporting period[13]. On August 28, 2020, a ceremonial event marked the modernization of the first three lines and the commissioning of the fourth line of the propane-butane extraction unit. The total cost of the project was 75 million US dollars. As a result, additional annual production capacities of 62,000 tons of liquefied gas and 22,500 tons of gas condensate were created[14].

In conclusion, it can be stated that the Mubarak Gas Processing Plant, established during the Soviet period, has been continuously modernized in line with contemporary requirements. Especially after Uzbekistan gained independence, the number of its foreign partners expanded significantly. The introduction of modern technologies ensured high efficiency in production processes.

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