

Licensing Into/Out of USSR

Soviet Union steps up technology licensing efforts; Licensintorg plays key role

BY DIMITRY A. SOLOVYKH*
and IGOR L. VOINOV**

The large scale and complexity of problems faced by science and technology today intensify international economic relations and active technological exchange in such global fields as raw materials, energy, pollution, resources of the world ocean, eradication of the most dangerous and common diseases, and space exploration.

One of the most dynamic forms of intensive technological exchange is the license agreement.

For about 25 years now, Licensintorg, the Soviet Foreign Trade company, has represented Soviet inventors, industrial enterprises; and the ministries and government bodies of the country maintaining stable, growing links with foreign buyers and sellers of licenses, know-how, and engineering services.

The Soviet Union's high international prestige in various fields of science and engineering is recognized throughout the world. Hence there is increasing interest on the part of foreign companies and organizations in Soviet licenses pertaining to the key branches of modern industry that need much research effort. The association's export portfolio contains about 2,000 applications for original inventions, selected on the basis of analysis of modern trends of development of science and technology.

More than 2,000 companies and organizations in 40 countries worldwide have commercial contacts with Licensintorg.

Helps Solve Problems

Since 1962 when the association was established, Licensintorg has concluded over 1,000 export and import agreements and contracts. By exchanging licenses, know-how and other industrial property rights with foreign companies on a commercial basis Licensintorg helps to solve important global problems as well as those of particular industries in the national economies of the Soviet Union and of the countries where the association's partners are based.

Licensintorg promotes various business and trade re-

lations between different Soviet organizations and their foreign partners. Its export-import activities are not confined only to the traditional forms of licenses, such as the license and optional agreements, and contracts of purchase-sale of equipment for license implementation. We try to diversify our forms of cooperation so as to satisfy, as completely as possible, the requirements of our foreign partners, on the one hand, and of the Soviet organizations and enterprises on the other.

Along with the transfer of rights for use of Soviet technologies, Licensintorg is ready to conduct, within the framework of the license agreement, development of technical and economic substantiation, preparation of projects within "basic engineering" or "detailed engineering," as well as to render technical assistance for all stages of license implementation and to provide other services.

Licensintorg regards developing license trade and cooperation with foreign trade organizations of socialist countries as a top priority. Most successful in this field are the Soviet technologies and developments in metallurgy, shipbuilding, electrical engineering, communications, etc.

Thus, various factories and integrated plants of the GDR have purchased licenses for torch gunning of converters and a method for manufacturing prestressed stands for rolling mills. The world famous Karl Zeiss Jena integrated plant successfully employs Soviet-designed techniques for making coquilles of rectangular lenses, and methods of checking physico-mechanical properties of grinding tools.

Licenses

Evaporation cooling systems for blast furnaces, a continuous phenol-formaldehyde plant, coke-oven batteries and other equipment have been installed at factories in Czechoslovakia under Soviet licenses.

A number of license agreements were concluded with the Hungarian industrial enterprises, including those for the Soviet evaporation cooling system for blast furnaces, which is used at Hungary's largest industrial enterprise, the Dunajvaros; a procedure for electroslag welding of aluminum conductors; a manufacturing process for powder wire; and production of units for oxygen-lance pipe cutting.

Licensing cooperation between Licensintorg and Bulgarian organizations has grown considerably.

The most important agreements on Soviet technologies include a synthetic diamond production method, making pipes from quartz glass, and Astra computer software for nuclear power plants, production of tunnel shields to lay service lines underground, mould casting with fine cleaning of ferrous alloys in the gating system-the FIRAM process- and producing citric acid by surface fermentation

*Deputy President, U.S.-USSR Trade and Economic Council, Inc., New York, N. Y.

**Amtorg Trading Corporation, New York, N.Y.; paper presented at LES U.S.A./Canada Annual Meeting, Los Angeles, Calif.; October 1986.

method, among others.

Licensintorg, in turn, buys, from the organizations and enterprises of socialist countries the most cost-effective production processes and equipment. Capitalist countries account for a considerable share of the association's license trade.

The most active partners are large and medium firms in Italy, France, FRG and Japan such as the Japanese Kobe Steel and Nippon Steel, West German Gutehoffnung Hutte and Schlomann Zimag, Italmimpianti and Goldoni of Italy, and many others.

Achievements

Foreign specialists are attracted by achievements in many Soviet industries. Thirty-five continuous steel casting plants were built in a number of countries under Soviet licenses. Licensees for dry coke quenching plants include companies in Italy, Japan, Great Britain, Spain, and others. Klekner Humboldt Deutz, an engineering firm of the FRG, was the first to buy an original method for processing complex zinc-copper ores-KIVTSET-process.

The other buyers of this process are well-known world producers of lead, such as Broken Hill of Australia, Cominco of Canada and Samin of Italy. The Austrian firm Voest Alpine purchased a license for torch gunning, an accelerated method of repairing the linings of converters. Fried Krupp of the FRG and Kawasaki Steel of Japan are also licensees for this technology.

Licensintorg's cooperation with foreign companies in such a humane field as manufacturing of medical preparations is particularly noteworthy. They are now being made under Soviet licenses in the FRG, Italy, Great Britain and the U.S.

The first contacts with U.S. companies started in 1964. United States Surgical Corp. bought a license for a Soviet-designed method of manufacturing blood vessel suturing instruments. However, business at that time was mostly sporadic. Nevertheless, due to joint efforts of the association and its American agents, the number of signed export license agreements has been growing from year to year and at present this cooperation goes on a large scale.

Among the licenses for the most interesting Soviet technologies purchased by the U.S. companies are the following:

- Technology for production of air punchers that can operate underground without disturbing street pavement.

- The evaporation cooling system for blast furnaces, which was the first in industrial power engineering practice to recover the blast-furnace waste heat and to cut drastically electric power and water consumption.

- An underground coal gasification plant to produce fuel gas from coal in underground channels using a technique that eliminates any manual operation.

- Technology and the Bulat installation for making wear-resistant coatings.

- Technology for aluminum casting in a magnetic field.

- Technology and installation for contact welding of marine trunk pipelines developed by the E.O. Paton Institute of Electric Welding under the Academy of Sciences of the Ukrainian SSR. The Soviet invention has made the welding process automatic and cut dramatically the time required for each welded joint. It increases pro-

ductivity 4 to 6 times.

- Technology for production of cone-type inertia crushers.

- Methods of design of mass-exchange columns in industrial air-separating plants.

Medicine

In the field of medicine, licenses should be noted for such cardiovascular drugs as Entasin and others, for surgical sutural instruments, for methods of ophthalmic microsurgery developed by the staff of the Institute of Microsurgery under the guidance of Academician S. Fedorov.

Soviet science and technology have a powerful potential but we realize that no single country, even the most industrialized, can dominate in all the fields of knowledge and engineering. The import activities of the association are in full keeping with trends of the country's progress and planned development of the Soviet economy. The main objective of the economic and social development of the USSR is to raise substantially the living standards of the Soviet people. Agriculture is now developing at an accelerated rate, serious tasks are faced by power engineering, transport, and much is to be done in the spheres of improving the quality, reliability and durability of machines, of automating many manufacturing processes, and extensive introduction of robots.

In view of these tasks, the association actively buys foreign licenses and know-how. U.S. technology purchased in recent years includes an agreement with RCA Corporation for manufacturing color picture tubes as well as licenses for Sundstrand-designed transmissions, automatic Pure-Pak dispensers from Ex-Cell-O, sprinkling installations from Valmont, low-cutting reapers from Deere & Co., power sources for electrocardiostimulators from Catalyst Research, and technology for industrial production of cranberries from Summit.

A new promising and important trend in the technological exchange is now being increasingly represented by joint ventures, where each partner or one of them supplies his technology by way of his contribution to the joint venture.

For example, a number of Soviet pharmaceutical and medical research centers, as well as some other specialized R&D establishments, express their readiness to form a joint venture on the territory of third countries by transferring their laboratory findings to be further developed and commercially applied. Accordingly, technical assistance will be provided by the Soviet organization. This arrangement will make it possible for the laboratory findings to be accessible to the market within a short time and with proper account for its requirements and specific conditions.

In terms of organization of management of foreign economic relations of the USSR, another possibility lies in organizing joint ventures on the territory of the Soviet Union. Here the foreign partner contributes his technology for manufacturing of the product to be subsequently marketed in the USSR and worldwide.

At present new possibilities for developing co-production in industry and for the establishment of joint enterprises are offered to interested firms in capitalist and developing countries as well. The endorsed principles of establishing such enterprises combine both the specific

features of the Soviet economic system and the positive world experience of joint enterprise and joint activity in the sphere of production.

Joint enterprises can be established for the output of products currently imported from abroad. However, it is expected that at the same time they will carry out active export operations, including with the use of the marketing and servicing networks of both partners, the main areas of cooperation of interest to the Soviet side as of today are: the output of chemicals for use as pesticides, dyeing agents, chemical fibers and individual types of machines, as well as the pulp-and-paper, light, and food industries.

Joint enterprises are set up on the basis of joint capital with the share of the foreign participant not exceeding 49%. Its concrete contribution can take the form of equipment, technology or currency funds.

Joint enterprises shall not receive obligatory planned assignments from the Soviet authorities and shall determine their production programs themselves.

The foreign partner shall receive the right to the free

transfer of profits and also of other assets due to it. A reasonable favorable level of taxation shall be set for it. The foreign partner shall have the right, within the limits of its established share of the joint capital, to reinvestment of its profits with a view to enlarging or modernizing production.

The scientific and technological potentials of the two countries are great. This creates a basis for a more vigorous economic cooperation on the basis of license trade. To date, 52 export license agreements and the same number of import license agreements have been concluded by Licensintorg with American firms.

At the same time the current sanctions and restrictions applied to the technology exchange between the USSR and the U.S.A. adversely impact the development of business with American companies on a really large scale.

Difficulties may arise from time to time, of course, in such a complex matter as licensing trade. We are convinced that they can be resolved by means of a patient dialogue and bringing together the positions of those interested in the solution.