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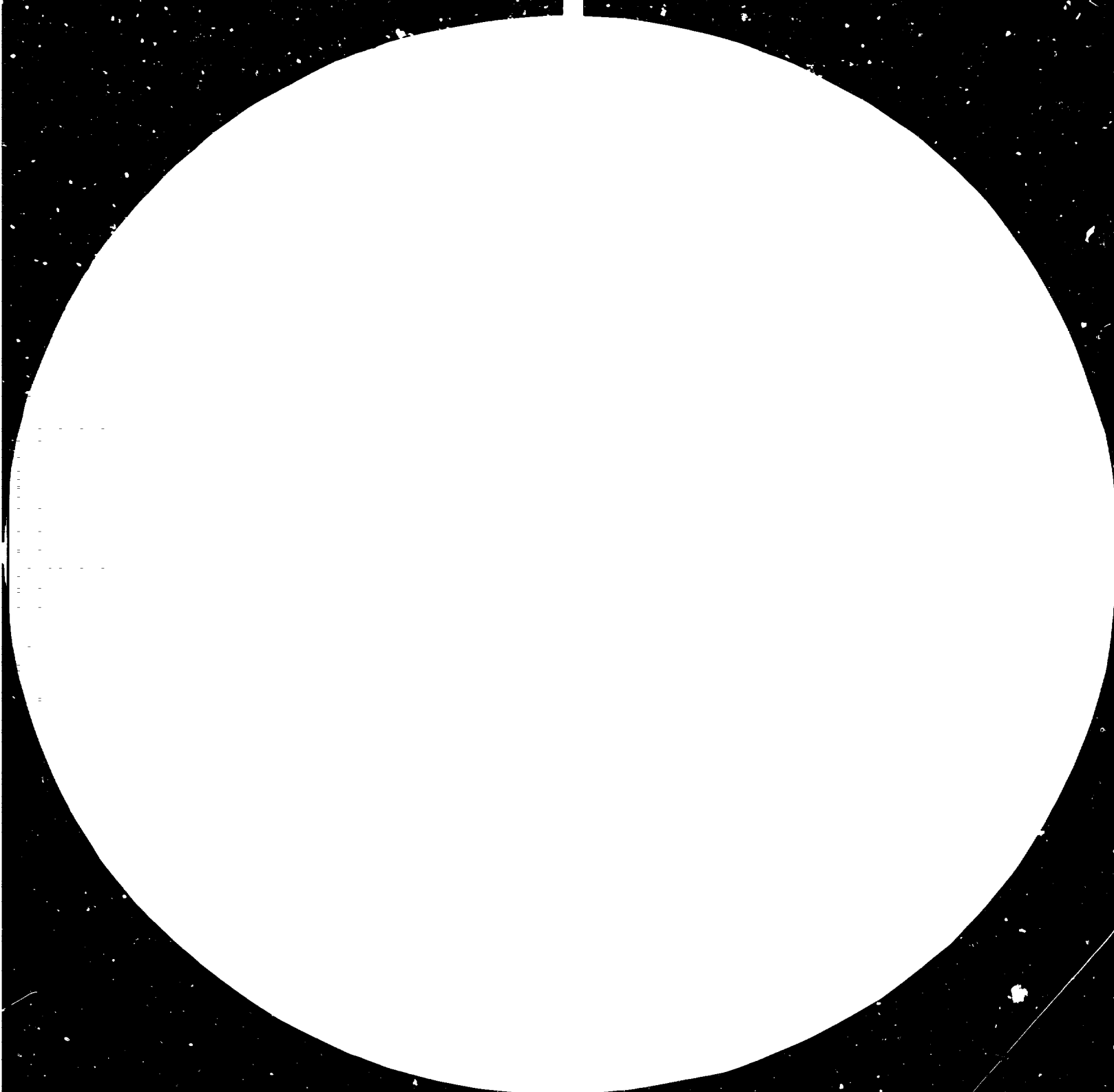
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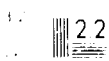
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2.8 2.5



Resolution Test Chart

# TIES NEWSLETTER

## TECHNOLOGICAL INFORMATION EXCHANGE SYSTEM

Issue Number 4

12032

July 1980

Dear Reader,

With the fourth issue of the TIES Newsletter a new type of item appears under the heading 'Recent Legislation'. We are pleased to include in this category what may be viewed as an explanation or elaboration of legislation, such as the one recently enacted in the Republic of Korea.

We feel that this type of elaboration is most interesting and useful to our readers and would like to include articles of this nature whenever possible. As such we invite the Registries or Foreign Investment Offices participating in TIES to submit articles on new or revised policies *vis-à-vis* technology transfer and/or foreign investment as well as articles detailing the purpose and scope of new legislation.

As the TIES Newsletter serves as a forum for the exchange of ideas among the Registry Offices, this type of article enables the registries to provide more information on their aims, objectives and policies to similar offices in other countries and contribute to the enlargement of the type of information exchanged under the TIES system.

We hope you agree and that we can look forward to the receipt of articles from our Registry participants.

  
G.S. Gouri

### *Technology acquisition and TAS*

#### UNIDO's Technological Advisory Services (TAS)

This specialized assistance programme has been established by UNIDO for the purpose of providing *ad hoc* highly specialized and confidential advice to governments of developing countries, on request, on the acquisition of technology for major projects. This includes assistance in the negotiation of technology contracts, technical, legal and financial evaluation of contract proposals and other related information.

Thus far TAS, based predominantly on the services of UNIDO staff and carefully selected outside consultants from developing countries, has concentrated on assistance in preparations for the negotiation of licensing and joint venture agreements and the assessment of contracts and selected feasibility studies.

TAS is operated in a flexible manner in order to comply with requests made at relatively short notice. Governments are ordinarily required to reimburse the actual costs of services rendered, that is, travel and per diem

costs of staff performing the services and the costs of outside consultants where needed.

Requests for TAS should be directed to Mr. G.S. Gouri, Technology Group, UNIDO.

#### Technology Acquisition - Algeria

The following is excerpted from the 'Bulletin Officiel des Contrats' published by the Ministère des Industries légères and INAPI (Institut Algérien de Normalisation et de Propriété Industrielle) No. 000, March 1980 and represents contracts presented to INAPI for review.

#### Code Utilized

1. Recipient company
2. Supplier company
3. Collaboration type
  - 3.1 Patent
  - 3.2 Trademark
  - 3.3 Know-how
  - 3.4 Technical assistance
  - 3.5 Basic engineering
  - 3.6 Detailed engineering
  - 3.7 Training
  - 3.8 Management and administrative services
4. Project realization
5. Date of contract signature
6. Contract duration
7. Form of renewal
8. Form of payment
9. Products
10. Project location
11. Law applicable to contract
12. Resolution of disputes

#### Manufacture of Dumping Machinery

1. Société Nationale de Constructions Métalliques (SN Metal) 38, Rue Didouche Mourad, Alger
2. Helmut Volker K.G. Höhenstaufenstrasse 1, 6930 Eberbach, FRG
3. 3.3, 3.4, 3.7
4. n.a.
5. 12/12/74
6. 9 months
7. n.a.
8. Lump sum
9. Dumping/tipping machinery for public works
10. n.a.
11. n.a.
12. Arbitration, Geneva

Compiled by the Technology Group of UNIDO

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*Opinions expressed in this newsletter do not necessarily reflect the views of UNIDO.*

Manufacture of radio, television, and telecommunications apparatus

1. Société nationale de fabrication et de montage du matériel électrique et électronique (SCNELEC) 4, b Boulevard Mohamed V., Alger
2. G.T.E. International, Stanford, CT 06904, U.S.A.
3. 3.1, 3.3, 3.4, 3.5, 3.7, 3.8
4. Produit en main
5. 5/12/74
6. 10 years
7. Automatic yearly renewal
8. n.a.
9. Television and radio receivers, electronics, tape recorders, antennas
10. Sidi-Bel Abbas
11. Algerian law
12. Arbitration, Geneva

Manufacture of pharmaceuticals and medicines

1. Pharmacie Centrale Algérienne (PCA) 2, Rue Bichat, Alger
2. Centre Européen de Recherches Mauvernay Route de Marsat, 63201, Roim, France
3. 3.2, 3.3, 3.4
4. n.a.
5. 3/17/75
6. 2 years
7. Automatic yearly renewal
8. Royalty on PCA purchase price per unit of production
9. Antispasmodics
10. n.a.
11. n.a.
12. Algerian jurisdiction

1. Pharmacie Centrale Algérienne (PCA) 2, Rue Bichat, Alger
2. Laboratoires Labaz 39, Avenue Pierre 1er de Serbie, Paris 75008, France
3. 3.1, 3.2, 3.3, 3.4
4. n.a.
5. 27/7/76
6. 5 years
7. Automatic yearly renewal
8. Royalty on duty free sales price per unit of production
9. Haemostatics, cough medicines, antianemics, antiseptics, vitamins
10. n.a.
11. Defendant's law
12. Arbitration, country of defendant

Tobacco Industry

1. Société Nationale des Tabacs et Allumettes (SNTA), 40, Rue Hocine Nourredine, Alger
2. British American Tobacco Company LTD Westminster House, 7 Mill Bank, London, U.K.
3. 3.2, 3.3, 3.4
4. n.a.
5. 25/1/74
6. 3 years
7. Automatic renewal every 3 years
8. Royalty on sales price per lot of finished product
9. Cigarettes
10. n.a.
11. Algerian law
12. Arbitration

Gas Production and Distribution

1. Société Nationale de Recherche, de Production, de Transformation, de Transport et de Commercialisation des Hydrocarbures (SONATRACH) 80, Avenue Ghermoul, Alger
2. Sociedad Anonima Española de Trabajos Metálicos (SAETRAM) Ronda San Antonio 52, Barcelona, Spain and Suminstros Industriales Rocafort Sirsa (BUTSIR) Avenue Martires Sta. Cruzida. 42-44 Barcelona, Spain
3. 3.1, 3.3, 3.4, 3.5, 3.7
4. Turn key
5. 2/8/74
6. 2 years
7. n.a.
8. Lump sum
9. Bottled LPG (small capacity) and related apparatus for use of LPG
10. Gué de Constantine (Alger)
11. Algerian law
12. Arbitration, Alger

Production and Preliminary Processing of Metals

1. Société Nationale de Sidérugie (S.N.S.) 2, Rue du Chenoua, Hydra, Alger
  2. Société Vieille Montagne, Angleur, Belgium
  3. 3.3, 3.4, 3.6, 3.7, 3.8
  4. Produit en main
  5. 24/2/69
  6. 10 years
  7. n.a.
  8. Lump sum
  9. Zinc
  10. Ghazaouet
  11. n.a.
  12. Ad hoc arbitration, Paris
1. Société Nationale de Sidérugie (S.N.S.) 2, Rue du Chenoua, Hydra, Alger
  2. W.S. Atkins and Partners Ilford House, 133 Oxford Street Westminster, London, U.K. and GKN Rolled and Bright Steel Ltd. Castle Works, P.O. Box 3 Cardiff, Wales, U.K.
  3. 3.3, 3.4, 3.6, 3.7
  4. Turn key
  5. 1970
  6. 10 years
  7. n.a.
  8. Lump sum
  9. Wire and wire products
  10. Oran
  11. Algerian law
  12. Arbitration, Paris

REGISTRY ACTIVITIES

MALAYSIA

The Industries Division of the Ministry of Trade and Industry, with WIPO and the Council for Coordinating Industrial Transfer of Technology, sponsored a workshop on industrial property, licenses and technology transfer from 17-26 June 1980 in Kuala Lumpur, Malaysia. The workshop was attended by some 50 participants from Indonesia, Malaysia, Philippines, Singapore and Thailand. The workshop included case studies, lectures, discussions and factory visits.

## Recent legislation

### REPUBLIC OF KOREA

The following is an article submitted by the Korean Ministry of Science and Technology.

#### Technology Inducement Policy

The Korean economy, on the threshold of an advanced stage of development, requires the rapid growth of technology intensive industries to allow the breakthrough essential to advanced industrialization. It is, therefore, imperative for Korea to acquire many new technologies immediately from both domestic and foreign sources, and to apply them systematically in strategic industries.

For the last several years, technology inducement has increased steadily. Royalty payments for imported technologies, which exceeded \$30 million in 1976, rose to \$94 million in 1979. The aggregate royalty payments from 1962 had reached \$350 million by the end of 1979.

The Government has recognized technology licencing as an important element in accelerating the introduction of the necessary foreign technologies in the Foreign Capital Inducement Law, and has accorded it the same financial privileges and incentives as are provided for capital inducement. The Law guarantees the remittance abroad of fees for imported technology, and such payments are exempted from income and corporation taxes for the first five years after introduction of the technology and reduction by 50 per cent of these taxes is allowed for the following three years.

In addition to granting these privileges to the technology licensor, the Government effected an important measure to promote foreign technology inducement by simplifying the administrative procedures relating to technology import. In 1978, the Government adopted an automatic technology licencing approval system in some selected industrial areas such as machinery, shipbuilding, metallurgy, electronics and electricity, chemicals and textiles. This system allowed technology licencing under certain conditions to be automatically approved by the competent Ministries without being considered by the Foreign Capital Inducement Deliberation Committee unless the licencing contract included unfair licencing conditions. For this automatic approval, the licencing contract should be for less than three years and the fee should be either under three per cent of the running royalties with up to \$30,000 in initial payments or \$100,000 in the case of lump sum payments.

In April of last year (1979) we expanded automatic technology licencing approval to all industries, except the nuclear and defense industries, for licencing contracts of less than ten years with either up to 10 per cent running royalties plus \$500,000 in initial payments or \$1 million in the case of lump sum payments. More than 90 per cent of all technology imports to Korea last year were approved under this simple procedure.

This year (1980) we will expand the application of this simple procedure to all industrial areas including the nuclear and

defense industries to apply to licencing contracts of less than 10 years with up to 10 per cent in running royalties regardless of the amount of the initial or lump sum payments. The necessary amendment to the presidential decree of the Foreign Capital Inducement Law took effect 7 July.

The Government will continue to promote and encourage foreign technology inducement and to improve technology import procedures to favour the foreign technology licensor. At this moment, we are looking into the possibility of allowing technology licencing under certain conditions without the approval of Government authorities to simplify technology import procedures further.

In an added effort to encourage foreign technology imports, the Government is planning to establish a Revolving Fund to provide financial support. This fund will play an important role in stimulating and encouraging technology development.

Today, we need advanced technology more than ever to sustain steady economic growth. We hope co-operation in this area will be further strengthened.

#### CALENDAR OF MEETINGS

1. Fifth meeting of heads of technology transfer registries, Buenos Aires, Argentina, 15-19 September 1980.
2. World technology fair for the developing countries (Technology for the People), Geneva, Switzerland, 15-19 September 1980.
3. Joint UNIDO/WAITRO seminar-workshop on improving the performance of industrial research institutions through co-operative arrangements, Colombo, Sri Lanka, 13-16 October 1980.
4. Workshop on preparation and negotiation of technology transfer agreements for public enterprises in developing countries, Ljubljana, Yugoslavia, 27-31 October 1980.
5. Joint UNIDO/OAU seminar-workshop on transfer of industrial technology, Khartoum, Sudan, 3-17 November 1980.
6. Workshop on technology transfer - experiences of developing countries in acquisition of technology from Socialist Countries, Warsaw, Poland (dates are not yet fixed).
7. Second workshop and study tour on exchange of experiences and technology transfer on mini-hydro generator units, People's Republic of China and the Republic of the Philippines, 20 October-5 November 1980.

## Technology acquisition

### TECHNOLOGY ACQUISITION -- PEOPLE'S REPUBLIC OF CHINA

The following is an unofficial translation of information which appeared in the "People's Daily" (Renmin Ribao) newspaper published in Beijing on 12 May 1980. The article describes technologies recently acquired by the First Ministry of Machine Building from abroad and invites local users to contract with the domestic manufacturers for these products.

Items	Foreign suppliers	Domestic manufacturers	Uses
1. Coal mill with fan; Model K S G-S and Model K S G-N, each with 23 sizes	E V T Corporation, F.R.G.	Shenyang Heavy Machinery Plant	For boilers of power stations with a capacity up to 60 MW. The coal mills are designed by foreign suppliers according to different kinds of coal and ore manufactured in China.
2. Regulating hydraulic transmission (560-3200 kW.)	FLUIDRIVE Corporation, U.K.	Dalian Hydraulic Machinery Plant	For power stations with a capacity up to 20 MW., belt conveyors with steel cores, converter blowers and crushers.
3. Boiler feed water pump: 40-95 CHEA series, HDSR series and Model HCNH, including YNKN series and HPKE-type boosting pumps	KSB Corporation, F.R.G.	Shenyang Pump Plant	For boilers of power stations with a capacity of 20-60 MW.
4. Boiler blower and draft fan: FAF.SAF series	TLT Corporation, F.R.G.	Shanghai Blower Plant	For boilers of big power stations, mines, tunnels and water tunnels.
5. 500 kV. single-phase oil immersed transformer	ALSTHOM Corporation, France	Shenyang Transformer Plant	For 500 kV. high-voltage transmission lines.
6. 500 kV. parallel reactor	ALSTHOM Corporation, France	Xian Transformer and Electric Furnace Plant	For 500 kV. high-voltage transmission lines.
7. 500 kV. current transformer	ALSTHOM Corporation, France	Shenyang Transformer Plant	For 500 kV. high-voltage transmission lines

Items	Foreign suppliers	Domestic manufacturers	Uses
8. High-voltage sleeve capacitor, Models: GOA 1800, GOA 1675 (525 kV.) and GOA 1050 (300 kV.)	ASEA Corporation, Sweden	Xian High-Voltage Porcelain Insulator Plant	For 220 kV. and 500 kV. high-voltage transmission lines.
9. Sulfur hexafluoride breaker: SF6 open-type breaker series (Model 7.25-76.5 kV.FA), close-type transformer electrical appliance series (Model 7.25-55 kV. SF6)	MERLIN-GERIN Corporation, France	Pingdinshan High-Voltage Switch Gear Factory	For 750 kV. high-voltage transmission lines.
10. Power Capacitor; high-voltage paper phase capacitor (1050-10500V. 50-200 kvars), high-voltage film single-phase capacitor (1050-10500V. 50-300 kvars), low-voltage film capacitor (400V.)	McGraw Edison Corporation, U.S.A.	Xian Power Capacitor Plant	For industrial and electric system to increase power factor, to make full use of of power.
11. 10,000 cubic metre/h. equipment for oxygen plants, including equipment for extracting argon, xenon, neon, helium, krypton and other rare gases	LINDE Corporation, F.R.G.	Hangzhou Oxygen Equipment Plant	For iron and steel industry and chemical industry.
12. 28,000 cubic metre/h. equipment for oxygen plants	LINDE Corporation, F.R.G.	Hangzhou Oxygen Equipment Plant	For iron and steel industry and chemical industry.
13. Small billet continuous casting machine; Billet size: 70mm <sup>2</sup> -240mm <sup>2</sup> (R 4.5; R 5.25; R 6 and R 7.5)	DEMAG Corporation, F.R.G.	Dalian Heavy Machinery Plant	For iron and steel industry.



Items	Foreign suppliers	Domestic manufacturers	Uses
14. Axial flow compressor: A, AV series; Ratio of compression 1:9	SULZER Corporation, Switzerland	Shanxi blower Plant	For 620-4000 cubic metre blast furnace.
15. Turbo-compressor: MCl middle- and low-pressure series, BCL high-pressure series, PC1 series	NUOVOPIGNONE Corporation, Italy	Shenyang Blower Plant	For oil refineries, synthetic ammonia plants, ethylene plants, paper mills and metallurgical complexes.
16. Industrial steam turbines: Power: 4000 kW.-22.5 MW.; Maximum speed: 16000 rpm; Pressure: 12-140 atm; Temperature: 400-540°C, including combined sets (12 series)	SIEMENS Corporation, F.R.G.	Hangzhou Steam Turbine Plant	For oil refineries, synthetic ammonia plants, ethylene plants, paper mills and metallurgical complexes.
17. Mechanical dye forging press: MP series (630-8000 tons), KP series (2000-16000 tons)	EUMUCO Corporation, F.R.G.	No. 2 Heavy Machinery Plant, Beijing Heavy Machinery Plant and Research Institute of Machinery and Electricity,	For cars, tractors and defense industry.
18. Up-setting machine: SM series (80-3150 tons) including billet shears (KS series), forging rolls (HW series)	EUMUCO Corporation, F.R.G.	First Ministry of Machine Building	
19. 45-1050 kW. hydraulic transmission with couplers (constant filling of hydraulic medium)	VOITH Corporation, F.R.G.	Dalian Hydraulic Machinery Plant	For mines, construction engineering machinery and various lifting and transport machinery, power-saving.
20. Carburetor, an improvement of carburetors of Model BJH 201 and Model QH 202 made in China	Hitachi Manufacturing Plant, Japan	Beijing Vehicle Plant	Fuel-saving, long service-span.

Items	Foreign suppliers	Domestic manufacturers	Uses
21. Piston Slot Reinforcement Technique: AL-FIN slot reinforcement	WELLWORTHY Corporation, U.K.	Wuhan Auto Parts Plant	Increase of service-span for pistons by five times.
22. Improved design for auto engines: to improve the design for auto engines (Type EQ 5105) produced by No. 2 Auto Plant	KICARDO Corporation, U.K.	No. 2 Auto Plant	Higher performance for engines and cross-country vehicles.
23. Lining Materials: compositions LB15, BB9, KE9, DB7 and composition RD50 with cashew nut resin	Mitsubishi, Japan	Hangzhou Brake-lining Material Plant	For brake blocks of trucks and lorries, construction machinery, hydraulic transmissions and cars.
24. Spark Plug: long-threaded (Type 4C5T) and short-threaded (Type 427T), 14mm series	SMITHS Corporation, U.K.	Nanjing Electric Porcelain Insulator Plant	High performance, durable service for cars.
25. Polypropylene Films: Width: 30-280mm; Thickness: 7.5-25 u for Type S and 9-30 u for Type R	SHINEISU Chemical Co., Japan	Longfang Insulating Material Plant	Insulating material for capacitors and electrical appliances.
26. Sealing: four kinds (trapezoid, rubber, polyethylene tetrafluoride and metallic corrugated tube sealing) and five series, Pressure: 10-69 kg/cm <sup>2</sup> , Temperature: -212°C-400°C, Size: 10-165 mm	CRANE Corporation, U.K.	Tianjing Sealant Plant	Important components for the sealing of machines with rotatables, widely used in products of oil, chemical and machinery industries.

Items	Foreign suppliers	Domestic manufacturers	Uses
27. Drain Trap, including bi-metallic sheet type (5 series), floating type (4 series), piston type (2 series) and anti-frost type (4 series) and bimetallic strip type (2 kinds)	VELAN Corporation, Canada	Dalian High-pressure Valve Plant	For oil chemical, paper-making, light textile, metallurgical industries and power plants, 10-15 per cent of steam can be saved.
28. Dies for Plastic Moulding - introduction of design and manufacturing techniques of different kinds of dies for plastic, e.g. cassette tapes	BARBER and DUFFY Corporation, U.K.	Shanghai Xinghuo Die Maker	Various kinds of plastic moulders can be made, high precision, and increase of service-span by 3-10 times.
29. Electric Welding Machine: 7 series, 49 kinds and various types of welding handles and electric control panels. Spot welder (series KT), single-phase spot welder (series S), seam welder (series M), portable single-phase spot welder (series C), single and three phase D.C. welder, three-phase low frequency spot and seam welder and electronic beam welder (7.5 kW., 15 kW., 30 kW.)	SCIANKY Corporation, France	Shanghai Electric Welding Machine Plant	Modern welding equipment for welding in various industries.
30. Electrical Single Set Combined Instrument: one series electronic-controlled equipment (26 kinds) with NRE series recorder	Yokogawa Electric Works, Japan	Xian Instrument Plant	For automatic control systems in production of oil, chemical, metallurgical, machine-building and light industries, and power plants.

Items	Foreign suppliers	Domestic manufacturers	Uses
31. Capacitive Transmitter: Type 1151 (9 types)	ROSEMOUNT Corporation, U.S.A.	Xian Instrument Plant	This electrical single set combined instrument is important for automatic control and measuring. It is widely used in oil, chemical, metallurgical industries and power plants.
32. Infrared Analyzer: Type UNOR-4N	MAIHAK Corporation, F.R.G.	Beijing Analytic Instrument Plant	An important control and analytic instrument for oil, chemical, fertilizer and ethylene industries and for environmental protection.
33. High-pressure Hydraulic Valve: pressure valve, volumetric valve, directional valve, additional valve, proportional valve and multi-channel valve. Maximum pressure: 250 kg/cm <sup>2</sup> , 350 kg/cm <sup>2</sup> , Diameter of work: 5/60 mm	1. VICKERS Corporation, U.S.A. 2. REXROTH Corporation, F.R.G.	Yuci Hydraulic Pressure Parts Plant Beijing Hydraulic Pressure Parts Plant	For machine tools; plastic, construction, chemical and mining machinery; shipping, aviation and national defense.
34. Small Rating Automatic Switch: series SOU, 6-4a (including single, two and three grade)	BBC Subsidiary in F.R.G.	Beijing Low-Voltage Electrical Appliance Plant Shanghai Electrical Appliance Company	Switch and protective equipment for distribution systems in modern buildings.
35. A.C. contactor: Series D, 380V, 8.5-460a	BBC Subsidiary in F.R.G.	Beijing Low-Voltage Electrical Appliance Plant	For control of the starting of engines.
36. Thermal Relay: Series T, 16-320a	BBC Subsidiary in F.R.G.	Beijing Low-Voltage Electrical Appliance Plant	For protection of engines from overload.

Items	Foreign suppliers	Domestic manufacturers	Uses
37. Magnetic Starter with plastic case or with metallic case: 380V, 4-45 kW.	BBC Subsidiary in F.R.G.	Beijing Low-Voltage Electrical Appliance Plant	Control unit for starting of engines.

China's Foreign Economic and Technical Co-operation Corporation, First Ministry of Machine Building.

Activities include: external contracting and joint contracting with foreign contractors for complete projects, joint ventures, compensatory trade, transfer of technology, export of labour service etc.

Inquiries from both domestic and foreign customers are welcome.

Address: Sanlihe Road, Fuxingmenwai, Beijing, China; telephone: 86.7008, 86.7890; cable address: 0102;  
telex: 22341 CMIC CN.

The following is excerpted from the June 1980 issue of the Industrial Development Digest published by the Philippine Ministry of Industry.

The Technology Transfer Board registered 36 technology transfer agreements from January to March 1980. The figure brought to 116 the total number of technology transfer agreements registered with the Board since its organization in August 1978.

The first quarter registered-agreements are expected to save for the country an estimated \$21,538,293 in foreign exchange in five years as a result of reduction or disallowance of technology payments in certain cases. Tax revenues accruing to the government for five years from the withholding tax payments on technology fees are estimated to total P93,786,383.

Conditional approvals for the same period cover 52 agreements of which 5 are featured in this issue.

#### 1. Processing of Chemical Grade Chrome

Alamag Processing Corporation, a new firm registered with the Board of Investments under R.A. 5186, and Bayer AG of the Federal Republic of Germany, have entered into a technical assistance agreement for the processing of chemical grade chrome.

Chemical grade chrome or high iron chromite is one kind of commercial chrome ore concentrate processed from two geological types of ultraformic rocks. Although deposits are abundant in the Philippines, no local company has yet gone into the processing of chemical grade chrome concentrates.

Present chrome processing technology extracts chemical grade chrome concentrate from ultraformic rock ores. According to Alamag, however, Bayer has succeeded in developing an economical process which extracts the ore from lateritic soil. This is the technology which Bayer will employ for the Philippine plant in Eastern Samar and for which Bayer has offered its technical assistance.

#### 2. Cement Technology

Blue Circle Industries Ltd., one of the largest cement manufacturing organizations in the world, offering consultancy and management services to government and commercial organizations, has agreed to supply technical information on cement technology to Marinduque Mining and Industrial Corporation, a local cement manufacturer with a factory in Antipolo, Rizal. The agreement initially covers fuel saving technology and methods of raising clinker output.

The technical assistance from Blue Circle is expected to increase MMIC's output by 36.7%. Likewise, fuel savings are expected by improving the thermal efficiency of MMIC's kilns from its present level.

### 3. Communications Equipment

The technology license agreement between Motorola Phils. (Communications Division) Inc. and Motorola, Inc., of U.S.A. is for the transfer of technical assistance and technical data in the manufacture and assembly of quartz crystal resonators and oscillators and monolithic crystal fibers, 2-way radios and pagers, sub-assemblies, components, parts and modules thereof or products which are reproductions of the foregoing. Motorola, Inc. shall grant to its subsidiary: 1) a non-exclusive right and license to manufacture licensed products using technical data and technical assistance from Motorola; 2) a non-transferable, non-assignable, non-exclusive, indivisible license to sell and lease licensed products in the Philippines under patents and utility models owned by Motorola in the Philippines; and 3) a non-exclusive license to export the licensed products manufactured by the licensee in the Philippines to the U.S.A. and other countries except where export is prohibited by either the laws or regulations of the countries where the export is intended.

#### 4. Renewal of Contract Agreement

Borden Inc. (licensor) and Borden International Phil. Inc. (licensee) have renewed their knowhow and technical assistance agreement for technological improvements in the manufacture of formaldehyde-based resin, polyvinyl acetate and acrylic emulsions and foundry chemicals. The formaldehyde-based resins are used mainly as adhesives for plywood and as binders for particle boards and fiberboards, also for textile finishing, papermaking and others. Polyvinyl acetate and acrylic emulsions, on the other hand, are used as vehicles for paints and as base materials for specialty adhesives. The scope of the agreement includes the license to use the knowhow in the manufacture, application and sale of the licensed products; training of licensee's employees in one or more plants of the licensor or its affiliates; and dispatch of licensor's employees to licensee's plant to render technical assistance.

The renewal has two objectives: 1) assistance in the manufacture of new types of resin demanded by the market and 2) assistance to improve energy economy and production efficiency of both the formaldehyde and resin polymerization plants.

#### 5. Submarine Cable

A submarine cable communication system will soon be installed between the Philippines and the Province of Taiwan by Eastern Telecommunications Philippines Inc. (ETPI) with technical assistance from Cable and Wireless Limited. The new system will replace the present tropospheric satellite link between Luzon and Taiwan, the design life of which will end this year. It will increase the present capacity of 95 voice grade channels to 480 circuits when operational. The cable system is said to be advantageous over the

satellite link, especially for short distances. It is also deemed to be the best replacement considering the existing satellite route.

The capability of laying and commissioning wideband submersible cable is said to be limited to only a few entities in the world having the necessary equipment, knowledge and practical experience. The route survey, show and end lay and main lay need cable ships, experienced technicians and electronic engineers and special equipment.

Cable and Wireless Limited is now the largest international telecommunications operator in the world. It supplies and manages, under contract, the procurement, commissioning and maintenance of telecommunications systems. In the Philippine project it has undertaken a great deal of preliminary oceanographic and hydrographic survey work along the proposed route. The actual sea bed conditions were confirmed by the use of underwater photography, coring and sampling, combined with the measurement of sea bed currents. Precise navigational control along the route was maintained by the use of satellite navigational equipment and mark buoys. Two of Cable and Wireless' six cable ships have been deployed in the project.

### *Recent publications*

ID/CONF.4/22. Report of the Third General Conference of the United Nations Industrial Development Organization.

ID/234. UNIDO guides to information sources No. 35. Information sources on the utilization of agricultural residues for the production of panels, pulp and paper.

ID/236. UNIDO guides to information sources No. 36. Information sources on industrial maintenance and repair.

ID/241. UNIDO guides to information sources No. 37. Information sources on industrial training.

PI/69. Appropriate technology for developing countries. UNIDO's co-operative programme of action for national and regional progress.

ID/WG.319/1. Issue No.1: Raw hides and skins - measures to improve their world-wide availability, quality and statistical intelligence. Leather and leather products industry.

ID/WG.319/2. Issue No. 2: Problems and prospects of production and marketing of leather products in developing countries, and co-operation measures which could be envisaged between developing and developed countries. Leather and leather products industry.

ID/WG.319/3. Issue No. 3: Selected issues of trade and development in the hides, skins, leather, leather products and footwear sector.

ID/232/11. Appropriate industrial technology for light industries and rural workshops No. 11 - Monographs on appropriate industrial technology.

ID/243 (80.II.B.1). Metalworking industries in developing countries of Africa - Report of the workshop on technical co-operation among the developing countries of Africa in the field of metalworking industries.

ID/WG.318/5. Establishing a multilateral insurance scheme providing adequate coverage for consequential losses incurred by fertilizer and other industrial plants. Third consultation on the fertilizer industry Sao Paulo, Brazil, 29 September-4 October 1980. Agenda item 4(b).

ID/WG.321/9. A biogas power station in Foshan. Energy from night soil. Technical consultations among developing countries on large-scale biogas technology in China. Beijing, China, 4-19 July 1980.

### Guidelines for the Evaluation of Technology Transfer Agreements

This latest volume in UNIDO's Development and Transfer of Technology series published in early 1980 has been receiving an enthusiastic response from readers in developing and developed countries.

"Guidelines for the Evaluation of Technology Transfer Agreements" (DTT No. 12, ID/233) was recently reviewed in the magazine UNIT (Issue 2, 1980, published by Dr. Dvorkowitz and Assocs., Ormond Beach, Florida, U.S.A.), a journal on licensing, new product development, joint ventures and evaluation. To quote from the review:

"I believe that this is without question the most valuable volume in the (DTT) series. Though it is destined primarily for officials in developing countries it is equally valuable for smaller and medium sized companies in dealing with larger and possibly better staffed companies especially from the negotiating viewpoint.

"Chapters I-VI examine in detail several types of technology agreements - technical assistance, patent, know-how, engineering services, trademark and franchise - setting out their objectives and suggesting options to the licensee and to the national regulatory agency, so as to reap the maximum benefit to the national economy. Also, considerable attention is paid to the subject of process performance guarantees, and methods of evaluation are outlined. "Chapter VII deals extensively with remuneration for technology, presenting concepts of evaluating its price and, again, presenting options to the licensee. Chapter VIII provides the reader with condensed information on legal and administrative

provisions in technology agreements and suggests the wording of basic clauses. Chapter IX discusses criteria for selecting technology and presents particularly important issues concerning its selection in developing countries. Chapter X deals with the pricing of products for which readily recognizable reference prices may not be available.

"The annexes contain extensive check-lists for use in evaluating and screening technology transfer agreements and remuneration provision."

"Guidelines for the Evaluation of Technology Transfer Agreements" is available free of charge in English and Chinese from: The Editor, UNIDO Newsletter, P.O. Box 300, A-1400 Vienna, Austria. Spanish and French editions are currently being prepared by UNIDO. When ordering the 'Guidelines' please quote the document number ID/233.

## *UNIDO activities*

### UNIDO Staff

Mr. Enrique Aguilar, a Senior Industrial Development Officer formerly with UNIDO's Development and Transfer of Technology Section, has been appointed Chief of UNIDO's Economic Co-operation among Developing Countries Section. Mr. Aguilar assumed his new duties 1 May but continues to be closely associated with the work of the Technology Group.

### UNIDO Workshop on the Negotiation of Technology Transfer Agreements with First Ministry of Machine Building, Beijing, P. Rep. of China

At the invitation of the First Ministry, Messrs. E. Aguilar and H. Janiszewski, both UNIDO staff members, conducted an intensive workshop on the negotiation of technology transfer agreements in Beijing. The workshop was held from 16-27 June and was attended by some 100 officials of the First Ministry and representatives of various other institutions from eight Chinese provinces.

The purpose of the workshop was not only to provide participants with practical information regarding current practices in international licensing and the relevant experience of other developing countries but also to train some of the participants to conduct similar workshops. The consensus was that such workshops would be most useful to other government and regulatory institutions who are concerned with importing technology.

The UNIDO staff members were received by the Vice Minister of the First Ministry, Mr. Tsao Weilen.

### National Seminar on the Development and Transfer of Technology in Yaounde, Cameroon, 7 - 12 July 1980

UNIDO was the co-sponsor along with the National Committee for Technology Transfer and the General Delegation for Scientific and Technical Research (DGRST) of the above-

mentioned seminar. The purpose of the national seminar was to create a general awareness in the participants of the problems relating to technology transfer and to formulate recommendations for appropriate follow-up action at the national level.

The meeting, opened by the Delegate General of ONAREST, Mr. Vrousia Tchinye, was attended by some 40 leading personalities of Cameroon from business circles, Government and R and D institutions. Mr. G.S. Gouri of UNIDO's Technology Group also attended the seminar, delivering on behalf of UNIDO the key address, covering a broad spectrum of issues related to the need for development of long-term technological policies in the developing countries in Africa.

The seminar ended successfully with the elaboration of a work plan including recommendations for actions by the Government, details of which will be provided in the next issue of the TIES Newsletter.

### UNIDO Staff visit to TIES Registries

In June and July of this year at the request of various government authorities Ms. Cathy Pawelczyk of UNIDO's Technology Group had the opportunity to visit some of the Registry Offices participating in the TIES system. In the case of the Philippines, Malaysia and Mexico, discussions were held regarding the process of contract review and analysis, set-up of internal information systems in the Registries, statistical and evaluative questions regarding surveys on the effectiveness and impacts of technology transfer and various practical questions relating to the exchange of information via the TIES system.

In India, China and the Republic of Korea the staff member explored with the relevant authorities possibilities of active participation by those countries in TIES, including detailed discussions on the various information exchanges carried out under the TIES programme. Authorities in these countries expressed serious interest in the TIES system and will most probably be giving an indication of their decision on participation at the next meeting of the TIES group in September 1980.

### CO-OPERATION WITH THE 'LICENSING EXECUTIVES SOCIETY' (LES)

UNIDO has been exploring with members of LES the possibility of a joint meeting similar to that which took place in Lisbon, Portugal in October 1979.

The joint meeting would involve various LES members and participants to the Fifth Meeting of Heads of Technology Transfer Registries to be held in Buenos Aires, Argentina from 15-19 September 1980. The meeting may either take place 15-16 September in Buenos Aires or possibly 11-12 September in conjunction with a LES International Licensing Conference to be held in Helsinki, Finland earlier that week.

The purpose of the meeting would be to continue the dialogue between technology suppliers and recipients begun at the Lisbon meeting.

Details of the proposed meeting will appear in Issue 5 of the TIES Newsletter.



