

Appendix C

Technical-Assistance Agreements between the Soviet Union and Western Companies, 1929-45

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Accounting and Tabulating Machine Co.	United States	Power machines
Akron Rubber Reclaiming Co.	United States	Rubber-plant reclamation; training Soviet nationals
Aktiebolaget Vallenbyggnadsbyran	Sweden	Construction of Svir Dam
Alco Products, Inc. (Div. of American Locomotive)	United States	Petroleum refineries
Allen & Garcia Inc.	United States	Coal mine development
Allgemeine Elektrizitäts Gesellschaft	Germany	Electrical machinery
American Can Co.	United States	Canning processes
Ansaldo	Italy	Shipbuilding
Ansonia Clock Co.	United States	Clocks and watches
Audio-Cinema, Inc.	United States	Sound film technology
Austin Co.	United States	Automobile plant construction; design of Gorki city
Babcock & Wilcox, Inc.	United States	Boiler design
Badger, E.B., & Sons	United States	Wood distillation, oil Refineries
Bagley & Sewell Co.	United States	Newsprint manufacturing
Baldwin Locomotive Works	United States	Locomotive repair shops
Baltimore & Ohio Railroad	United States	Railroad operations
Birdsboro Steel Foundry & Machine Co.	United States	hydraulic presses
Birmingham Small Arms Co.	England	Bicycles
Bliss, E.W., Co.	United States	Power-plant design; small arms ammunition
Blom and Kamroth	Unites States	Meat-packing plants
Boeing Aircraft Co.	United States	Aircraft
Borsig, A.	Germany	Refrigeration technology

Appendix C (continued)

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Brandt, Arthur J.	United States	Reconstruction of AMO works
British Thomson-Houston Co. Ltd.	United Kingdom	Power Stations
Brown-Boveri Co.	Switzerland	Gas blowers; aluminum mill equipment
Brown Instrument Co.	United States	Electrical recording instruments
Brown-Lipe Gear Co.	United States	Gear manufacture for automobile industry
Bucyrus-Erie Co.	United States	Excavating equipment
Budd Manufacturing Co.	United States	1934 auto model change (21S)
Burd Piston Ring Co.	United States	Tractors
Burrell-Mase Engineering Co.	United States	Expansion and management of Grozneft
Casale Ammonia S.A.	Italy	Nitrogen fixation; manufacture of synthetic ammonia
Caterpillar Tractor Co.	United States	Training Soviet nationals
Cellulose de Bourges	France	Chemicals
Chain Belt Co.	United States	Conveyors
Chase, Frank D., Inc.	United States	Design of foundry projects
Cheretti & Tonfani	Italy	Design and construction of Conveyors
Chicago Kitchen Co.	United States	Design of community Kitchens
Cie de Produits Chimiques et Electrometallurgiques Alais, Troques et Camargue	France	Aluminum
Clark, Wallace, & Co.	United States	Gantt methods
Cleveland Tractor Co.	United States	Training Soviet nationals
Cooper, H.L., & Co., Inc.	United States	Dniepr Dam
Craven Bros. (Manchester), Ltd.	United Kingdom	Special machine tools
Curtiss-Wright Corp.	United States	Aircraft engine manufacturing license
Davy Bros., Ltd	United Kingdom	Forging manipulators
Deere & Co.	United States	Agricultural Equipment
Deilmann Bergbau	Germany	Design of mines at Solikamsk
Demag Aktiengesellschaft	Germany	Manufacture of cranes, hoisting equipment and blooming mills
Deutsche Tiefbohr A-G	Germany	Drilling deep water wells
Deutz Motorenfabrik A-G	Germany	Construction of Deutz diesel engines

Appendix C (continued)

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Dewey & Almy Chemical Co.	United States	Crab meat containers
Diebold Safe & Lock Co.	United States	Watch factory (Diebold Inc.)
Disticoque S.A.	France	Coke ovens
Douglas Aircraft Co., Inc.	United States	Aircraft : DC-3
Dow Chemical Co.	United States	Styrene
Dueber-Hampden Watch Co.	United States	Construction and equipment of watch plant
Du Pont, (E.I.) de Nemours & Co.	United States	Synthetic ammonia, nitric acid and fertilizer technology
Eastman Construction Engineering	Unites States	Construction
Electric Auto-Lite Co.	United States	Electrical equipment in Autos and tractors
Elektrokemisk	Norway	Manufacture of Soderberg electrodes
Ericsson, L.M., A/B	Sweden	Telephone equipment
Ex-Cell-O Aircraft and	United States	Stated by Soviets as Tool Corp. agriculture implements
Fairbanks Aviation Corp.	United States	Aircraft manufactur
Farben, I.G.	Germany	Chemicals
Farrel-Birmingham Co. Inc.	United States	Sykes machines
Ferguson, Hardy S., & Co.	United States	Paper-mill technology
Fiat s.p.a.	Italy	Automobiles, aircraft, ships
Ford Motor Co.	Unites States	Automobile plant construction and auto tire plant
Foster-Wheeler Corp.	United States	Petroleum refineries
Freyen Engineering Co.	United States	Iron and steel plants
Frolick & Knupfel	Germany	Design and construction of mines
Gaillard-Parrish	United Kingdom	Sulfuric acid
Gibbs, Harry D.	United States	Chemical processes; phthalic anhydride
Gogan Machine Co.	Unites States	Automobile bumpers
Goodman Manufacturing Co.	United States	Coal cutters
Graver Corp.	United States	Refineries
Great Northern Telegraph	Denmark	Telegraph operations
Grusonwerk, Friedrich Krupp	Germany	Manufacture of equipment or crushing plants
Hahn, A.W.	United States	Aluminum powder

Appendix C (continued)

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Harburger, Eisen, and Bronzwerke, A-G	Germany	Manufacture and design of equipment for oil-crushing mills
Heinkel	Germany	Aircraft
Henshien, H.G.	United States	Meat packing plants
Hercules Motor Corp.	United States	Nitrocellulose; cotton linters
Hilaturas Casablanco, S.A.	Spain	Coal cutters
Houdry Process Corp.	United States	Catalysts
Humboldt-Deutz Motoren, A-G	Germany	Diesel engines (all sizes)
Imperial Chemical	United Kingdom	Chemical manufacture Industries, Ltd.
International General Electric Co., Inc.	United States	Electrical equipment (all types)
International Harvester Co.	Canada	Agricultural implements
International Harvester Co.	United States	Training Soviet nationals
Irving Air Chute Co., Inc.	United States	Parachutes
Isacco, Vittorio	Italy	Helicopters
Jenkins Co.	United States	Petroleum refineries
Kahn, Albert, Inc.	United States	Supervision of Five-Year Plan design and construction
Kallitt Products, Inc.	United States	Electrical equipment
Karlstad Mechaniska Verkstaden A/B	Sweden	Construction of turbines, Svirstroi
Kohorn, Oskar, and Co.	Germany	Production of artificial silk by viscose process
Koppers Construction Co.	United States	Coke ovens and by-Products
Krupp, Friedrich, A.G.	Germany	Manufacture of special grades of steel, cement
Kellager, Vereinigte	Germany	Ball bearings
La Compagnie Generale de Telegraphie	France	Radios
Lockwood, Greene & Co., Inc.	United States	Textile-plant construction
Loeffler	Czechoslovakia	High-pressure boilers
Longacre Engineering and Construction Co.	United States	Apartment buildings
Lucas & Luick	United States	Gas plants and pipelines
Lummus Co.	United States	Refinery construction

Appendix C (continued)

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Lurgi Gesellschaft fur Chemie und Huttenwesen m.b.H.	Germany	Sulfuric acid process
Maatschappi	Holland	Saccharification of wood pulp for production of fodder and glucose
Macchi	Italy	Flying boats
Manchu Machine Works	Manchuria	Machine-tool plant
Manchurian Machine Tool	Manchuria	Machine-tool plant
Marietta Manufacturing Co.	United States	Carbon-black plant unit
Marshall & Sons, Ltd.	United Kingdom	Locomotives for lumber industry
Martin, Glenn L., Co.	United States	Bomber design
Maschinen un Bronze-Waren Fabrik A-G	Germany	Machine tools
Maschinenbau A-G	Germany	Manufacture of compressors
Maschinenbau-Anstalt 'Humboldt'	Germany	Installation of concentrator equipment
Maschinenfabrik Augsburg-Nurnberg A-G	Germany	Construction of MAN-- Diesel engines, simple 4-cycle motors, simple and double 2-cycle motors with and without compressors, and machines and equipment for cold storage plants
McClintock & Marshall Plant Const. Co.	United States	Building erection for Stalingrad Tractor
McCormick Co.	United States	Baking-plant design
McDonald Engineering Co.	Unites States	Industrial plants, cement, Elevators
McKee, Arthur G., & Co.	United States	Magnitogorsk iron and steel plant; petroleum refineries
Mechanical Engineering (Chicago)		United States Meat-packing plants
Merritt Engineering & Sales Co., Inc.	United States	Manufacture of rolled-steel railroad-car wheels
Messer Co. A-G	Germany	Construction of autonous wieldsing equip.
Metropolitan-Vickers Electrical Co., Ltd.	United States	Construction of steam turbines; power plants
Midwest Rubber Reclaiming Co.	United States	Assistance in rubber-plant construction; training Soviet nationals
Miller, Max B., and Co.	United States	Petroleum refineries

Appendix C (continued)

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Moisseiff, Leon S.	United States	Bridge consultation
Multibestos Co.	United States	Design and technical assistance in construction of factory for asbestos products
National Rubber Machinery Co.	United States	Tire-building machines
Newport News Shipbuilding & Dry Dock Co.	United States	Turbine construction
Nickel, Arthur, Co.	United States	Iron-ore mining
Nitrogen Engineering Corp.	United States	Ammonia-fertilizer plant construction and operation
Nobile, General Umberto	Italy	Airships
Nordberg Manufacturing Co.	United States	and Railroad equipment
	United Kingdom	
Oglebay, Norton Co.	United States	Iron-ore mine development
Ohio Locomotive Crane Co.	United States	Operation and servicing of cranes
Oliver Farm Equipment Co.	United States	Tractor plows
Otis Elevator Co.	United States	Moscow subway elevators
Owens Bottle Co.	United States	Bottle-closing patent and machinery for silicate industries
Parke, Davis & Co.	United States	Pharmaceutical products
Passburg, Emil, and Berthold Block	Germany	Design of vacuum plants
Penick & Ford, Ltd., Inc.	United States	Construction of corn production and refining plants
Pennsylvania Railroad	United States	Railroad operating methods
Peterson, Hugo	Germany	Peterson sulfuric acid process
Petroleum Engineering Corp.	United States	Petroleum refineries
Pflanzennamme	Germany	Manufacture of peat products
Polakov, W.N.	United States	Management consultants
Pontiac Engineering Co.	United States	Smelter construction
Power-Gas Corp., Ltd.	United Kingdom	Gas generator plant
Pratt & Whitney Aircraft Co.	United States	Stated by Soviets as agricultural implements
Radio Corporation of America	United States	Exchange of patents and information, radio and TV
Radiore Co.	United States	Prospecting assistance
Remington Rand, inc.	United States	Office equipment

Appendix C (continued)

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Republic Aviation Corp.	United States	Aircraft
Richard Bros.	United States	Tractor manufacture
Riedinger Maschinen-und Bronzewarefabrik A-G	Germany	Metals manufacture
Roberts & Shaefer Co.	United States	Detailed designs and plant drawings Donetz coal trust
Rockwell, W.S., Co.	United States	Furnace technology at Stalingrad
Rosoff Subway Construction Co.	United States	Subway construction (probably not implemented)
Rust Brothers	United States	Rust cotton-picking machine
Safety Mining Co.	United States	Manufacture of CARDOX
Sauerman Bros., Inc.	United States	Equipment operation
Savoia	Italy	Flying boats
Sayer, E.Y., Engineering Corp.	United States	Steam electric plant
Scintilla A-G	Switzerland	Manufacture of magnetos and ignition equipment
Seabrook, C.F., Co.	United States	Road construction
Seiberling Rubber Co.	United States	Sale of rubber tire plant
Seversky Aircraft Corp.	United States	Aircraft
Sharples Specialty Co.	United States	Petroleum centrifuge equipment
Siemens-Schukert	Germany	Electrical equipment
Smidth, F.L., A/S	Denmark	Cement plants
Smith, C.V., Co., Thetford	Canada	Asbestos milling
Societe de Prospection Electrique Procedes Schlumberger	France	Electrical prospecting for oil
Societe Francaise Anonyme Lumiere	France	Manufacture of films
Societes du Duralumin	France	Duralumin
Soeries de Strasbourg S.A.	France	Production of artificial silk by viscose process
Southwestern Engineering Co.	United States	Design construction and operation of metal plants
Sperry Gyroscope Co., Inc.	United States	Marine instruments, bomb sights
Standard Alcohol Co.	United States	Rubber technology
Standard Oil Co. of New York	United States	Operation of Batumrefinery: synthetic ethyl alcohol

Appendix C (continued)

Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Stockholms Superfosfat Fabriks Aktiebolaget (Chernorechensk Plant);	Sweden	Construction, equipment, and operation of plant with annual production of 20K tons calcium cyanamid and 3K tons carbide manufacture of yellow prussiate of potash; construction of equipment and operation of Karabliss Cyanamid and Carbide Plant
Stuart, James & Cooke, Inc.	United States	Coal industry; grain Elevators
Sullivan Machinery Co.	United States	Mining equipment
Sulzer Gebruder A-G	Germany	Construction of 2-cycle Sulzer diesel engines
Swasey, Warner P.	United States	Tractor manufacturer
Szepesi, Eugene	United States	Accounting systems in textile mills
Taft, Pierce Mfg. Co.	United States	Manufacturing of tools, Jigs, etc.
Telefunken Gesellschaft A-G	Germany	Manufacture of long distance receiving sets
Thew Shovel Co.	United States	Dragline operation
Timken-Detroit Axle Co.	United States	Automobile industry
Torfplattenwerke A-G	Germany	Construction of plant for manufacture of peat insulation plates
Tube Reducing Co.	United States	Tube mill installations
Union Construction Co.	United States	Drawings and specifications for dredges
Union Switch and Signal Co.	United States	Railroad automatic block Signals
United Engineering & Foundry Co.	United States	Hot and cold wide-strip mills in steel and aluminum industries
Universal Oil Products Inc.	United States	Refinery construction
U.S. Wheel Track Layer Corp.	United States	Christie tanks
Verband Deutscher Werkzeugmaschinenfabrik Ausfuhr	Germany	Organization of joint technical office bureau in Berlin for execution of designs for equipment of metal manufacturing plants; organization of of machine display room in Moscow
Vereingte Carborundum & Elektritwerke A-G	Germany	Manufacture ad design of plant for artificial abrasives
Vereinigte Kugellager Fabriken A-G	Germany	Manufacture of ball bearings
Veritas S.A.	France	Technical assistance on Tanker construction
Vickers-Armstrongs, Ltd.	United Kingdom	Tanks

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Western Company	Country of Origin	Technical Transfer to U.S.S.R.
Villar-Perosa Officine (RIV) s.p.a.	Italy	Manufacture of ball bearings
Vom Bauer	United States	Electric furnaces
Vultee Aircraft (Div. of Aviation Mfg. Corp)	United States	Bombers
Webber & Wells, Inc.	United States	Food processing
Westinghouse Electric and Manufacturing Co.	United States	Power plant design, aviation test equipment
Westvaco Chlorine Products Corp.	United States	Chemical industry
Wheeler, Archer E., Engineering Co.	United States	Non-ferrous metals
White J.G., Engineering Corp.	United States	Technical assistance on Svir Dam
Winkler-Koch Engineering Co.	United States	Cracking technology
Yukon Fur Farms, Inc.	United States	Organization of animal farms
Zahn A-G	Germany	Carbon disulfide