

**Catalogue of Industry Guidelines for Foreign Investment
(Amended in 2007)**

A	CATALOGUE OF ENCOURAGED FOREIGN INVESTMENT INDUSTRIES .	5
I.	Agriculture, forestry, animal husbandry and fishery industries.....	5
II.	Mining industry.....	5
III.	Manufacturing industries	6
	(1) Agricultural products and subsidiary foodstuff processing industry	6
	(2) Food manufacturing industry.....	6
	(3) Beverage manufacturing industry.....	7
	(4) Tobacco products industry.....	7
	(5) Textile industry	7
	(6) Industry of leather, pelage, feather (down) and their products	7
	(7) Wood processing and bamboo, cane, palm, straw manufacturing industries	7
	(8) Papermaking and paper products industries	8
	(9) Petroleum processing and coking industries.....	8
	(10) Chemical raw materials and chemical products manufacturing industries.....	8
	(11) Medical and pharmaceutical manufacturing industries	10
	(12) Chemical fibers manufacturing industry.....	11
	(13) Plastics manufacturing industry.....	11
	(14) Non-metallic manufacturing industry.....	12
	(15) Non-ferrous metallurgy and rolling processing industries	13
	(16) Metalwork manufacturing industry	14
	(17) General machinery manufacturing industry	14
	(18) Special equipment manufacturing industry	16
	(19) Transportation equipment manufacturing industry.....	22
	(20) Electric machinery and equipment manufacturing industry	25
	(21) Communication equipment, computer and other electronic equipment manufacturing industries.....	26
	(22) Industries of manufacturing instruments and meters as well as machinery for cultural and office use	28
	(23) Other manufacturing industries	31

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IV.	Power, gas and water production and supplying industries	31
V.	Transportation, storage and postal industries.....	32
VI.	Wholesale and retail industries	32
VII.	Leasing and Commercial Services Industries	33
VIII.	Scientific research, polytechnic services and geological prospecting industries.....	33
IX.	Industries of water conservancy, environment and public facilities management	34
X.	Education	34
XI.	Health, social security and social welfare Industries	34
XII.	Culture, sports and recreation industries.....	34
B	CATALOGUE OF RESTRICTED FOREIGN INVESTMENT INDUSTRIES ..	35
I.	Agriculture, forestry, animal husbandry and fishery industries.....	35
II.	Mining Industry	35
III.	Manufacturing industries	35
	(1) Agricultural product and subsidiary foodstuff processing industries	35
	(2) Beverage manufacturing industry	35
	(3) Tobacco products industry.....	36
	(4) Printing industry and duplication of recording media	36
	(5) Petroleum processing and coking industries.....	36
	(6) Chemical raw materials and chemical products manufacturing industries.....	36
	(7) Medical and pharmaceutical manufacturing industries	37
	(8) Chemical fibers manufacturing industry.....	37
	(9) Rubber products manufacturing industry	37
	(10) Non-ferrous metallurgy and rolling processing industries	37
	(11) Metalwork industry.....	37
	(12) General equipment manufacturing industry	38
	(13) Special equipment manufacturing industry	38
	(14) Transportation equipment manufacturing Industries.....	38
	(15) Communication equipment, computers and other electronic equipment manufacturing industries	38
IV.	Power, gas and water production and supplying industries.....	38
V.	Transportation, storage, and postal industries.....	38

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VI.	Wholesale and retail industries	39
VII.	Finance industries	40
VIII.	Real estate industry	40
IX.	Leasing and commercial services industries	40
X.	Scientific research, polytechnic services and geological prospecting industries.....	40
XI.	Industries of water conservancy , environment and public facility management.....	41
XII.	Education	41
XIII.	Health, social security and social welfare industries	41
XIV.	Culture, sports and recreation industries.....	41
XV.	Any other industries restricted by the State or by the provisions of treaties concluded between China and other countries or of provisions of international treaties to which China is a signatory.....	41
C	CATALOGUE OF PROHIBITED FOREIGN INVESTMENT INDUSTRIES...	42
I.	Agriculture, forestry, animal husbandry and fishery industries.....	42
II.	Mining industry.....	42
III.	Manufacturing industries	42
	(1) Beverage manufacturing industry	42
	(2) Medical and pharmaceutical manufacturing industries	42
	(3) Non-ferrous metallurgy and rolling processing industries	42
	(4) Special equipment manufacturing industry	42
	(5) Electric machinery and equipment manufacturing industry	43
	(6) Industrial products and other manufacturing industries	43
IV.	Power, gas and water production and supplying industries.....	43
V.	Transportation, storage and postal industries.....	43
VI.	Leasing and commercial service industries	43
VII.	Scientific research, polytechnic services and geological prospecting industries.....	43
VIII.	Industries of water conservancy , environment and public facility management.....	43
IX.	Education	44
X.	Culture, sports and recreation industries.....	44
XI.	Other industries.....	44

XII. Any other industries prohibited by the State or by the provisions of treaties concluded between China and other countries or of international treaties to which China is a signatory..... 45

A CATALOGUE OF ENCOURAGED FOREIGN INVESTMENT INDUSTRIES

I. Agriculture, forestry, animal husbandry and fishery industries

1. Transformation of middle and low yield farm land
2. Plantation, development, and manufacture of woody plants for the purpose of edible greases, condiments, and industrial raw materials
3. Non-pollution cultivation techniques and serialized development and manufacture of vegetables (including edible mushrooms and melons), dried and fresh fruits, and teas
4. Development and manufacture of high quality, high yield, new technology and new variety crops including sugar crops, fruit trees, flowers, pasture, etc. (excluding genetically modified products)
5. Flora nursery and construction and operation of nursery bases
6. Plantation of natural rubber trees, sisal hemp and coffee
7. Plantation and farming of Chinese medical materials (only in the form of equity joint ventures and cooperative ventures)
8. Comprehensive utilization of crop stock and reusing the crop stock to fertilize soil, development and manufacture of the resources of organic manure
9. Establishment of and breeding high quality varieties of timber (bamboo) forests; breeding new varieties of polyploid trees and genetically modified trees
10. Cultivation of breeding of aquatic products (excluding unique fine breeding of Chinese varieties)
11. Construction and operation of ecological and environmental protection projects including tree and grass plantation to prevention and treatment of desertification
12. Cultivation of aquatic products, development of deep water cage culture, industrialized cultivation of aquatic products, and ecological cultivation of oceanic varieties.

II. Mining industry

1. Exploration and development of coal bed gas and utilization of mine gas (only in the form of equity joint ventures and cooperative ventures)

2. Risk exploration and development of oil and natural gas (only in the form of equity joint ventures and cooperative ventures)
3. Development of low permeable oil-gas reservoirs (fields) (only in the form of equity joint ventures and cooperative ventures)
4. Development and application of new technology to increase the extraction rate of crude oil (only in the form of equity joint ventures and cooperative ventures)
5. Development and application of new technology of oil exploration and development for geophysical prospecting, drilling, logging, underground operation, etc. (only in the form of cooperative ventures)
6. Exploration and development of unconventional petroleum resources such as oil shale, tar sands, heavy crude and super heavy crude (only in the form of cooperative ventures)
7. Exploration, exploitation and dressing of iron and manganese mines
8. Development and application of new technology for improving the utilization rate of mine tailings, and comprehensive utilization of restoring technologies for mine ecology
9. Exploration and development of flammable ice in the seabed (only in the form of cooperative ventures)

III. Manufacturing industries

(1) Agricultural products and subsidiary foodstuff processing industry

1. Development and manufacture of biological fodder, straw fodder, and aquaculture feedstuff
2. Processing of aquatic products, cleaning and processing of shellfish, development of seaweed functional food
3. Storage and processing of vegetables, dried and fresh fruits, poultry and livestock products

(2) Food manufacturing industry

1. Development and manufacture of baby food, aged people food and functional food
2. Development, manufacture and processing of forest foods
3. Manufacture of natural food additives and food ingredients (only in the form of equity joint ventures and cooperative ventures)

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- (3) Beverage manufacturing industry
 - 1. Development and manufacture of beverages including fruit and vegetable juices, protein beverages, tea, coffee and plant beverages
- (4) Tobacco products industry
 - 1. Processing of cellulose diacetate and tow (only in the form of equity joint ventures and cooperative ventures)
 - 2. Manufacture of tobacco slices by papermaking method (only in the form of equity joint ventures and cooperative ventures)
 - 3. Processing and manufacture of filter tips (only in the form of equity joint ventures and cooperative ventures)
- (5) Textile industry
 - 1. Manufacture of special textile products with high and new technology for engineering use
 - 2. Weaving, dyeing, post-handling and processing of high-grade textile fabrics
 - 3. Processing of products from special natural fibers (including animal fibers other than sheep's wool, bast fibers, bamboo fibers, silk, color cotton, etc.) that comply with the requirements of ecology, comprehensive utilization of resources, and environmental protection.
 - 4. Garment making by employing the computer integrated manufacturing system
 - 5. Manufacture of high-grade carpet, embroidery, and drawnwork products
- (6) Industry of leather, pelage, feather (down) and their products
 - 1. Technological cleaning of leather and pelage
 - 2. Post-decorating and new technological processing of leather
 - 3. Processing of high-grade leather (sofa leather, automobile seat leather, etc)
- (7) Wood processing and bamboo, cane, palm, straw manufacturing industries
 - 1. Development and manufacture of new technology and new products for the comprehensive utilization of the Three Remainders of forestry, the "substandard, small and firewood" timber and bamboo materials from forest area

(8) Papermaking and paper products industries

1. Construction and operation of forest-wood pulp integration projects with single line annual chemical wood pulp production capacity of 300,000 tons or more, single line annual chemical mechanic wood pulp production capacity of 100,000 tons or more, and simultaneously-constructed manufacture facilities for high-grade paper and paperboards (only in the form of equity joint ventures and cooperative ventures)

(9) Petroleum processing and coking industries

1. Deep processing of needle-form coke and coal tar

(10) Chemical raw materials and chemical products manufacturing industries

1. Ethylene production with annual production capacity of 800,000 tons or above (the Chinese party holds relative controlling share)
2. Processing and manufacture of downstream derivatives of ethylene, comprehensive utilization of ethylene by-products and C4-C9 products (excluding the synthetic rubber generated from butadiene)
3. Manufacture of polyvinyl chloride resin (ethylene method) with the annual output of 200, 000 tons or more
4. Manufacture of deep-processed products of bleaching powder produced by sodium process, polyvinyl chloride and organic silicone
5. Manufacture of basic organic chemical raw materials: benzene, methylbenzene, (p-, o- and m-) xylene and their derivatives
6. Manufacture of complementary raw materials for synthetic materials: bisphenol A, propylene oxide by the epoxidation of propylene with hydrogen peroxide
7. Manufacture of raw materials for synthetic fibers: fine terephthalic acid, acrylonitrile, caprolactam, nylon 66 salt and melt-spinning spandex resin
8. Manufacture of synthetic rubber: liquid butadiene-styrene rubber(not including thermoplastic butadiene-styrene rubber), butyl rubber, isovalerye rubber, butadiene chloroprene rubber, polyurethane rubber, acrylic rubber, chlorohydrin rubber, epdm, and nitrile rubber, and such special rubbers as fluororubber and silicone rubber
9. Manufacture of engineering plastics and plastic alloys: PPO, Engineering Plastics Nylons 11 and 12, polyimide, polysulfone, PAR, liquid crystal polymer, etc.

10. Fine chemical industries: new products and new technology for catalytic agents, facilitation products and petroleum additives, commercialized processing techniques for dyes (pigments), manufacture of high technology chemical products for electronic and paper-making purposes, food additives, animal fodder additives, chemical products for leather products, oil field assisting products, surface active agents, water treatment agents, adhesives, inorganic fibers and inorganic nanometer materials, deep processing of surface coating of dyes
11. Manufacture of carbon black featuring low hysteresis and high abrasion-resistance
12. Manufacture of environment-friendly printing ink and aromatic oil
13. Manufacture of natural perfume, synthetic perfume and mono-isolate
14. Manufacture of high-performance coating materials, automobile used waterborne coatings and matching waterborne resin
15. Manufacture of substitution of chlorofluorocarbon
16. Manufacture of chemical engineering products in organic fluorine line (excluding chlorofluorocarbon or hydrogenous fluorochlorohydrocarbon and tetrafluoroethylene)
17. Recycling fluorine resource from chemical engineering of phosphorus and smelting of aluminum
18. Large-scale manufacture of coal chemicals (the Chinese party holds controlling share)
19. Development and manufacture of new technology and new products of chemical products for forest industry
20. Manufacture of ionic membrane for caustic soda, inorganic separation membrane and functional membrane
21. Development and manufacture of inorganic, organic and biological films for environment protection purposes
22. Development and manufacture of new fertilizers: biological fertilizers, high concentration potash fertilizers, compound fertilizers, sustained-release & controllable fertilizers, compound microbial inoculants, compound microbial fertilizers, straw and rubbish decomposing & maturing agent, and microbial preparations of special functions

23. Development and manufacture of new products of agricultural chemical pesticides featuring high efficiency and safety and new formulations of high-efficiency agricultural chemical pesticides
 24. Development and manufacture of biological pesticides and biologically preventing and curing products: microbial insecticides, microbial bactericides, agricultural antibiotics, insect pheromone, insects of natural enemy and microbial herbicides
 25. Comprehensive utilization and treatment of exhaust gas, waste liquids and waste residue
 26. Manufacture of organic and polymeric materials: silicone modified warship coatings, aircraft dopes, red dyes of rare earth cerium sesquisulfide, lead-free electronic packaging materials, lithography pastes exclusively used for color plasma display screen, superfine fibers of small diameter and high surface area, fuel filter papers of high precision, separators for Li-ion batteries, multifunctional compound auxiliary agents for plastic processing, diglyceride citrate, fludioxonil and cyazofamid
- (11) Medical and pharmaceutical manufacturing industries
1. Manufacture of novel compound medicines or active component medicines (including raw medicine and formulation)
 2. Manufacture of amino acids: serine, tryptophan, histidine, methionine used for feedstuff, etc.
 3. Manufacture of new anti-carcinogens and new cardio-cerebro-vascular medicines and novel medicines for nervous system
 4. Manufacture of novel, high efficiency and economical contraceptive pills and devices
 5. Manufacture of novel medicines that are produced by using biological engineering technologies
 6. Manufacture of high-fluorine medicines and intermedia with high physiological activity, such as heterocyclic compounds.
 7. Manufacture of genetic engineering vaccines (AIDS vaccines, hepatitis C vaccines, contraceptive vaccines, etc)
 8. Manufacture of biological vaccines
 9. Manufacture of Bacillus Calmette-Guerin and poliomyelitis vaccines
 10. Development and manufacture of maritime medicines

11. Manufacture of new types of pharmaceutical products and new products which use new technologies of slow-releasing, controlled releasing, target treatment, absorption treatment
12. Development and manufacture of new medical adjuvants
13. Manufacture of biomedical materials and products(excluding processing of human corpse and specimen thereof, human organs and tissues and specimen thereof)
14. Antibacterial agents for animal use (including antibiotics and chemical compounds)
15. Development and manufacture of new products and new-type preparations of antiseptic, anthelmintic, insecticides and anti-coccidium for animal use
16. Manufacture of novel diagnostic reagents

(12) Chemical fibers manufacturing industry

1. Manufacture of high-tech chemical fibers such as differential chemical fibers and aromatic, carbon fibers, CHMW-PE, PPS etc.
2. Manufacture of environment-friendly chemical fibers such as cellulose fibers using new solvent
3. Manufacture of novel polyesters for fiber and non-fiber use: PTT, PEN, PBT
4. Manufacture of novel fabric materials using renewable resources and biomass engineering technologies: PLA fiber(polylactic acid fiber), PDO fiber, etc
5. Manufacture of polyamide with single-line daily production capacity of 100 tons or above
6. Manufacture of aramid fibers and tire cords for meridian tires

(13) Plastics manufacturing industry

1. Development and manufacture of new technology and new products of mulching films (photolytic films, multi-purpose films, raw materials, etc.) and their production
2. Resolution and reuse of waste plastics
3. Development and manufacture of new technology and new products of plastic soft packages (high-obstruct and multi-purpose films and raw materials)

(14) Non-metallic manufacturing industry

1. Development and manufacture of new energy-saving and environment-friendly building materials: light and high-strength multifunctional wall frame materials, high-grade and environment-friendly decorative and renovation materials, high-quality waterproofing seal materials, high-efficiency thermal insulation materials
2. Manufacture of high-efficiency and energy-saving chemical building materials with plastic substitutes for steel and wood
3. Manufacture of elastomer or plastomer modified asphalt water-proof coiled materials, wide (more than two meters) and qualified EPDM water-proof coiled materials and auxiliary materials thereof, durable PVC coiled materials, and TPO water-proof coiled materials, with annual production capability of 10 million square meters or above.
4. Manufacture of electromagnetic-shielding glass, microelectronic-oriented glass substrate, infrared transmitting lead-free glass, electronic-grade and large-scaled quartz glass diffusers, post second- and third-generation MCP, optical fiber panels, image inverters and glass light cone
5. Manufacture of fiberglass (kiln wiredrawing production line) and glass fiber products with annual production capacity of 50,000 tons or above
6. Manufacture of continuous glass fiber strand mats, glass fiber surface mats, microelectronic-oriented glass fiber cloth and thin mats
7. Manufacture of image transmitting bundle and laser medical optical fiber
8. Manufacture of sanitary ware with annual production capacity of 1 million units or above
9. Standardized refinement of ceramic raw material and the manufacture of high-grade decorative materials for use in ceramics
10. Manufacture of cement kilns, high-grade (electronic) glass, ceramic, glass fiber, microporous carbon brick and other kiln-oriented high-grade fire-resistant materials
11. Manufacture of ceramic support for auto catalytic units, AlN ceramic substrates and porous ceramic
12. Manufacture of inorganic non-metallic materials and manufactured products: man-made crystal, carbon/carbon composite materials, special ceramic, special seal materials, high speed oil-sealing materials, special gelled materials, special latex materials, underwater acoustic rubber

products, and insulation materials with thermal conductivity of 0.025W/mK or below at normal temperature

13. Manufacture of high-tech composite materials: continuous fiber reinforced thermoplastics composite materials and the prepreg compound, process-aiding materials for molding resin-based composite materials with temperature resistance capability more than 300℃, blades made of resin-based composite materials, high-grade sports products made of resin-based composite materials, FRP pipes with special performance (pressure > 1.2MPa), composite materials with special performance and their products, composite material products for deep water use or for diving, composite material products for medical use and recovery, carbon/carbon composite materials and brake blocks, high-performance ceramic-based composite materials and their products, metal-matrix composite materials and their products, metal laminated composite materials and their products, ultra-high pressure composite rubber hoses with pressure of 321MPa or above, and aviation tires for large passenger aircrafts
 14. Manufacture of raw materials for precise high-performance ceramics and functional ceramics: SiC ultra-fine powder (purity > 99%, average diameter < 1μm), Si₃N₄ ultra-fine powder (purity > 99%, average diameter < 1μm), high-purity ultra-fine Al₂O₃ micro powder (purity > 99.9%, average diameter < 0.5μm), low-temperature sintered ZrO₂ powder (sintering temperature < 1350℃), high-purity AlN powder (purity > 99%, average diameter < 1μm), rutile-type TiO₂ powder (purity > 98.5%), white carbon black (average diameter < 100nm), barium titanate (purity > 99%, average diameter < 1μm)
 15. Manufacture of diamond film tools and ultra-thin artificial diamond saw blades with thickness of 0.3mm or below
 16. Fine processing of non-metallic minerals (ultra-fine crushing, high purification, refinement, modification)
 17. Manufacture of UHP graphite electrodes
 18. Manufacture of pearly mica (grain diameter: 3-150μm)
 19. Manufacture of multi-dimensional and multi-directional integrally knit fabrics and profiling fabrics
 20. Harmless disposal of flammable industrial wastes and domestic wastes using new dry-process cement kilns
- (15) Non-ferrous metallurgy and rolling processing industries
1. Manufacture of silicon single crystal and polished pellets, and polysilicon

2. Manufacture of high-tech non-ferrous metal materials: new and high-performance hydrogen storage materials, electrode materials for Li-ion battery, compound semiconductor materials (GaAs, GaP, InP, GaN), HTS materials, memory alloy materials (Ti-Ni, Cu-based and Fe-based memory alloy materials), ultra-fine (nm) CaC and crystal rigid alloy, ultra-hard composite materials, precious metal composite materials, Al foils for radiators, Al foils for medium and high pressure cathode capacitance, special large Al alloy profiles, Al alloy precise die forgings, electrified railway used overhead conductors, ultra-thin Cu belts, corrosion-resistance heat exchanger used Cu alloy materials, high-performance Cu-Ni, Cu-Fe alloy belts, Be-Cu belt, line, pipe and bar processing materials, temperature-resistant senility-resisting Tungsten filaments, Mg-alloy castings and lead-free solders, Mg alloy and its application products, foamed Al, Ti alloy strips and Ti welded pipes, atomic-level spongy Zr, and in-depth processing products of W and Mo

(16) Metalwork manufacturing industry

1. Manufacture of new lightweight and environment-friendly materials for automobiles and motorcycles (body aluminum sheet, aluminum magnesium alloy material, motorcycle aluminum alloy frame etc)
2. Development and manufacture of high-grade building hardware, water heating equipment and hardware.
3. Manufacture and processing of metal package products (thickness: 0.3mm or below) for packaging various oil and foodstuffs, fruits and vegetables, beverages, and daily chemical products, etc. (including printing and coating of inside and outside of the packaging products)

(17) General machinery manufacturing industry

1. Manufacture of high-grade numerically controlled machine tools and key parts: CNC machine tools with linkage of five-axles, CNC jig boring milling machining centers, CNC jig grinders, CNC systems and servo devices of five-axles, high speed super-hard cutters for premise CNC machining
2. Manufacture of multiple-position pier forging machines of 1000 tons or above.
3. Manufacture of processing equipment for disassembling and breaking scrapped auto bodies
4. Manufacture of Flexible Transfer Line

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5. Manufacture of vertical multi-joint industrial robots, welding robots and welding sets
6. Manufacture of special machining machines: equipment set for laser cutting and welding, laser precision finishing equipments, CNC LSWEDM (low-speed wire electro-discharge machine), sub-micron ultra-fine grinder.
7. Manufacture of wheel and crawler cranes of 300 tons or above (only in the form of equity joint ventures and cooperative ventures).
8. Design and manufacture of through shaft high pressure plunger pumps with pressure (35-42Mpa) and motors, low-speed big-torque motor with pressure (35-42MPa)
9. Manufacture of electro-hydraulic proportion servo elements
10. Design and manufacture of integrated multi-path valves with pressure (21-31.5MPa) , air-operated solenoid valve with power of 0.35W or below, HF electric control air valve of 200Hz or above
11. Design and manufacture of hydrostatic drive devices
12. Development and manufacture of non-contact gas film seal with pressure of 10Mpa or above, gas seal with pressure of 10Mpa or above (including experimental devices)
13. Development and manufacture of equipment for polymers (friction disks, retrofit metal bond pistons, non-metal hydraulic pumps etc.) for automobile use
14. Manufacture of III, IV generation wheel bearings for cars (functional components for wheel bearings with flanged inner, outer rings and sensor) , bearings for high- and medium-class NC machine and machining centers (machining centers with linkage more than three axles, location repeatability of 3-4 μ m), bearings for high-speed wire- and sheet-rolling mills (support roll bearings and work roll bearings for single wire rod mill of 120m/s or above and sheet mill processing plate thickness of 2m or above), high-speed railway bearings (with running speed more than 200km/h), low-noise bearings with vibration value of Z4 or below (noise levels of Z4, Z4P, V4, V4P) , and P4 and P2 bearings of various bearings
15. Manufacture of high-temperature resistant materials (with insulating levels of F and H) and shaped insulated articles
16. Development and manufacture of rubber seals for hydraulic pneumatic use.
17. Manufacture of high strength fasteners of 12.9 class or above

18. Manufacture of fine casting and fine forging templates for automobile and motorcycle use
19. Remanufacture of machine tools, automobile parts (excluding the five assemblies) and engineering machinery

(18) Special equipment manufacturing industry

1. Manufacture of trackless mining, loading and transportation equipment for mining use: 100 tons or above automatic unloading vehicles with mechanical transmissions, mobile crushing machines, 3000 cubic meters per hour or above bucket wheel excavators, 5 cubic meters or above loading machines for mining use, and 2000 KW or above electric traction shearers ,etc.
2. Manufacture of equipment for geophysical prospecting and well logging: MEME seismometer, numerical remote detection seismograph, numerical imaging, numerically-controlled well measuring system, devices and apparatus of plane well, directional well and borer, MWD logging while drilling equipment
3. Manufacture of equipment for petroleum exploration, well drilling, collection and transportation: floating well drilling system and floating production system with more than 500 meters working water depth, seabed oil extraction, collection and transportation equipment with more than 600 meters working water depth, petroleum drilling machine for blue water with more than 3000 kilowatts winch power, with more than 850 kilowatts on the top and with more than 1800 kilowatts drilling pump power, petroleum drilling machine for land and desert with more than 9000 meters drilling depth, 80 tons or above piston power to-and-fro compressor used for oil refining devices with capacity of 10 million tons per year, numerically-control petroleum deep-well logging equipment, petroleum drilling slurry strengthen bore equipment
4. System integration design and manufacture of jumbo machine of more than 6 meters diameter, integration design and manufacture of full fault plane hard rock tunneling boring machine (TBM) system of more than 5 meters diameter, manufacture of large caliber revolving digging and drilling machine with more than 1 meter caliber and with more than 30 meters depth, design and manufacture of push bench with more than 1.2 meters diameter, manufacture of large-scale non-digging laying underground complete sets of tubes and wires equipment with more than 200 tons back towing power, manufacture of underground successive wall construction drilling machine, manufacture of automatic vertical drilling system

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5. Design and manufacture of 100 tons or above large pipe layers, 320 horsepower or above large ditchers
6. Design and manufacture of crawler bulldozers with ground pressure of 0.03 MPa or below and power of 220 horsepower or above, 520 horsepower or above large scale bulldozers
7. Design and manufacture of 100 cubic meters per hour or above silt clearing machines, dredging devices of 1000 tons or above dredgers
8. Design and manufacture of concrete proof-seeping wall construction equipment
9. Manufacture of construction machinery for underwater cubic meter of earth and rock: 9 meters or under water depth bulldozer, loading machine and grab, etc.
10. Manufacture of equipment for maintenance and automatic testing of roads and bridges
11. Manufacture of operational monitoring, ventilation, disaster prevention and rescue equipment for road tunnels
12. Design and manufacture of large scale construction, maintenance and operational safety equipment for railways
13. Manufacture of equipment for (asphalt) bituminized, manufacture of equipment for manufacturing metal roof products such as galvanized steel sheets.
14. Manufacture of equipment for environmental protection and energy saving site spraying polyurethane waterproof and heating insulation system, equipment for polyurethane sealant confection technology and equipment, modified silicone confection technology and manufacture
15. Design and manufacture of sheet metal successive casting machinery, high precision strip mill (thickness precision is 10 microns)
16. Manufacture of direct reduced iron ore and melting reduced iron ore equipment
17. Manufacture of high-power direct arc stove with more than fifty tons power
18. Manufacture of color spreading sheet equipment and plating sheet equipment

19. Manufacture of mineral processing devices of multi elements, fine grain, hard selection metal mine
20. Manufacture of key equipment for eighty tons per year or above ethylene complete sets equipment: pyrolysis cracking gas, ethylene and propylene centrifugal compressor, granule-making machinery with more than 100,000 tons processing capacity per year, centrifugal machine with 800 millimeters or above diameter, high temperature and high pressure erosion-resisting pump and valve with more than 250 centigrade working temperature and with more than 15 Mpa working pressure, low temperature and super low temperature pump with below zero 55 centigrade (limited to joint ventures and cooperative ventures)
21. Manufacture of large scale coal chemical industry equipment (limited to joint ventures and cooperative ventures)
22. Design, manufacture and repairing of metalwork mould (e.g. tube, stick and profile extrusion mould of copper, aluminum, titanium, zirconic)
23. Design and manufacture of die stamping moulds of automobile body overcast pieces, design and manufacture of tongs and inspection tools of automobile and motorcycle
24. Design and manufacture of accurate stamping moulds with more than 0.02 millimeters precision (including 0.02 millimeters), accurate cavity mould with more than 0.05 millimeters precision (including 0.05 millimeters) and standard mould pieces
25. Design and manufacture of non-ferrous metal moulds
26. Manufacture of beer filling equipment of 60,000 bottles per hour or above, medium temperature and heat drink filling equipment of 50,000 bottles per hour or above, asepsis filling equipment of 36,000 bottles per hour or above
27. Technology and manufacture of key equipment for amino acids, enzyme preparations, and food additives
28. Manufacture of ten tons per hour or above complete sets of feedstuff machining equipment and key pieces
29. Manufacture of equipment of light corrugated board with square beam height of 0.75 millimeters or under and paper cases
30. Manufacture of folio size single sheet polychrome offset printers with printing speed of more than 16,000 folio size sheets per hour (720×1020 millimeters), manufacture of folio size double face printing single sheet polychrome offset printers with printing speed of 13,000 folio size sheets

per hour (720×1020 millimeters), whole page single sheet polychrome offset printer with printing speed of 13,000 folio size sheets per hour (1000×1400 millimeters)

31. Manufacture of single page single sheet reel paper offset printers with printing speed of more than 75,000 folio size sheets per hour (787×880 millimeters) , manufacture of double pages single sheet reel paper offset printers with printing speed of more than 170,000 folio size sheets per hour (787×880 millimeters) , manufacture of commercial reel offset printers with printing speed of more than 50,000 folio size sheets per hour (787×880 millimeters)
32. Manufacture of polychrome soft page printers with printing speed of more than 300 meters per minute and with width of more than 1,000 millimeters
33. Manufacture of system of computer mass color presetting, mass color remote controlling, ink speed tracking, automatic inspection and tracking of printing products quality, nontouch transmission technology, high speed automatic paper meeting machine, paper supplying machine with speed of 75,000 sheets per hour, high speed page folding machine with automatic remote control adjustment, automatic overprint system, cooling devices, silicon adding system, deflection adjustment devices
34. Deep processing technology and manufacture of equipment for flat glass
35. Manufacture of high-tech sewing machines for special industrial use
36. Manufacture of complete sets of equipment for new type paper machine (including paper pulp) etc.
37. Manufacture of new technological equipment for leather post-decorating
38. Development and manufacture of new equipment for farm produce processing and storage: new equipment of processing storage, fresh-keeping, classification, packaging, dryness, etc. for food supplies, oil plants, vegetables, dry and fresh fruits, flesh, aquatic products, etc., farm produce quality inspection equipment, farm produce non-damage inspection equipment, rheometer, farinograph, super tiny crush equipment, high effect dehydration equipment, 5 effects or above high effect juice condensation equipment, powder food material sterilization equipment, solid state and semi-solid state food asepsis equipment, asepsis packaging material, dairy produce producing full toss ferment, disk separation centrifugal machine
39. Manufacture of agriculture machinery: agriculture establishment equipment (greenhouse automatic irrigation equipment, nutrition liquid automatic configuration and fertilization equipment, high effect vegetable seedling raising equipment, soil nutrient analysis equipment), tractor with

120KW engine power and matched dead stock, low oil consumption, low noise and low exhaust emission diesel engine, sprayer matched with a large tractor and with recycling devices of remain foggy grain, high performance rice seedling transplant machine, cotton picking machine and cotton picking platform, automatic corn combine harvester adapted to multi-row-spacing (hydraulic pressure drive or machine drive)

40. Manufacture of new technological equipment for forestry implements
41. Manufacture of equipment for comprehensive utilization of crop stock and reusing crop stock to fertilize soil, and equipment of crop shell comprehensive utilization
42. Manufacture of equipment for comprehensive utilization of agricultural wastes, and manufacture of equipment for comprehensive utilization of wastes from scaled livestock and poultry breeding
43. Manufacture of agriculture technology equipment for fertilizer saving, pesticide saving, water saving
44. Manufacture of powered shaft cleaning equipment and equipment for cleaning agents manufacturing
45. Manufacture of endoscopic electronic devices
46. Manufacture of eyeground camera
47. Manufacture of key components of imaging equipment for medical(high field and superconducting magnetic resonance imagery (MRI),CT, X-ray computer faultage, B ultrasonic etc.)
48. Manufacture of ultrasonic transducer (3D)for medical
49. Manufacture of boron neutron capturing curing equipment
50. Manufacture of X-radial solid directional radiation curing system
51. Manufacture of hemodialysis, blood filtration machine
52. Manufacture of equipment for full-automatic enzyme immunosorbent systems (including the functions of sample-loading, enzyme labeling, plate-washing, incubation, post-data handling, etc.)
53. New technology and manufacture of new equipment for quality control of pharmaceutical products
54. Development of new technology to analyze and new techniques and new equipment to extract effective ingredients of Chinese medicines

55. Manufacture of new packaging materials and contents for medicines and manufacture of advanced pharmaceutical products
56. Development and manufacture of new type spinning machinery, key components, spinning checking and testing equipment
57. Manufacture of computer jacquard weave man-made fur machine
58. Manufacture of special equipment of solar battery manufacturing
59. Development and manufacture of pollution prevention and control equipment
60. Manufacture of equipment for urban garbage treatment and equipment for country organic garbage comprehensive utilization
61. Manufacture of equipment for recycling processing and regeneration and utilization of wasted plastics, electrical apparatus, rubber and battery
62. technology for environmental protection of aquatic ecosystem and manufacture of equipment therefor
63. Development and manufacture of technology and complete sets of equipment for seawater desalt and circulation cooling with one hundred thousand cubic meters or above per day
64. Manufacture of special meteorology observation and analysis equipment
65. System development and equipment manufacture of seismic station, net and mobile observation
66. Manufacture of three drums or above meridian tire building machine
67. Manufacture of rolling resistance test machine, tire noise lab
68. Manufacture of new technology and equipment for heat supplying computation, warm controlling device
69. Manufacture of inspection system for hydrogen energy preparation, storage and transportation equipment
70. Manufacture of new type heavy residual gasification and atomization muzzle, manufacture of high performance steam hydrophobic valve with 0.5 steam leaking rate or under, manufacture of ceramic heat exchanger with 1,000 high temperature or above
71. Manufacture of devices for comprehensive utilization of waste and old tires

(19) Transportation equipment manufacturing industry

1. Manufacture of entire automobiles (with the proportion of foreign capital not more than 50%) and building of research and development institutions of automobiles
2. Manufacture of automobile engines, recycling and remanufacture of engines, and building of research and development institutions of engines: gasoline engines with power per liter of 50kw or above, diesel engines with power per liter of 40kw or above and discharge capacity of below 3 liters, diesel engines with power per liter of 30kw or above and discharge capacity of above 3 liters, manufacture of engines with fuel batteries, blended fuels and other new energy resources.
3. Manufacture of key parts of automobiles and development of key technology: disc-type brake assembly, drive-axles assembly, automatic gear box, diesel engine fuel pump, engine air intake intensifier, viscous coupling (for 4-wheel-drive use), hydraulic tappet, electronic cluster gauges, vehicle crank shaft and connection rod (diesel engines of above 3 liters), anti-lock braking system (ABS, ECU, valve body, sensor) , ESP, BBW, EBD, traction force control system, gas generator for safety airbag system, diesel fuel electronic injection system, technology of common rail fuel injection (with max. injection pressure of 1600pa.), VGT technology, VNT technology, emission control device meeting China's stage IV pollutant discharge standard, ITM system and bonder assembly, steer-by-wire system, diesel particulate trap, intelligent cylinder, and non-conventional rubber components for automobile use
4. Manufacture and research and development of automobile electronic devices : electronic control system and key parts for engines and chassis, in-vehicle electronics (automobile information system and navigation system), automobile electronic bus network technology (only in the form of equity joint ventures), input (sensors and sampling system) and output (executors) components for electronic control system, controllers of electric power steering system (only in the form of equity joint ventures), embedded electronic integrated system (only in the form of equity joint ventures and cooperative ventures), electronic control air spring, electronic control suspension system, electronic air valve system device, electronic throttle, dynamic battery (nickel-hydrogen and lithium ion) and control system (only in the form of equity joint ventures), integrated motor and control system (only in the form of equity joint ventures), hub motor, multi-function controller (only in the form of equity joint ventures), fuel cell stack and its parts, hydrogen-stored system for automobile use, detection system for testing and repair of motorcycles

5. Manufacture of key parts of motorcycles: electrically control fuel jet technology of motorcycles (only in the form of equity joint ventures and cooperative ventures), emission control device meeting China's stage III pollutant discharge standard for motorcycles
6. Railway transportation equipment (only in the form of equity joint ventures and cooperative ventures): development, design and manufacture of entire vehicles and key parts (traction and drive system, control system, braking system) of transportation equipment used for high-speed railways, major railway passengers lines, inter-city railways, major railways and intra-city rails; development, design and manufacture of facilities and equipment for passenger service of high-speed railways, major railway passengers lines, inter-city railways, major railways and intra-city rails transportation, design and development of information system of informatization construction; development, design and manufacture of rail and bridge equipment for high-speed railways, major railway passengers lines and inter-city railways, development, design and manufacture of communication signal system for rail transportation, manufacture of equipment and materials for electrified railways, research and development of railway noise and vibration control technology, manufacture of waste removal equipment for passenger trains, manufacture of safety monitoring equipment for railway transportation
7. Design, manufacture and repair of civilian aircraft: aircraft for major lines and extensions (the Chinese party holds controlling share), general aircraft (only in the form of equity joint ventures and cooperative ventures)
8. Manufacture and repair of parts for civilian aircraft
9. Design and manufacture of civilian helicopters: 3 tons or above (the Chinese party holds controlling share), below 3 tons (only in the form of equity joint ventures and cooperative ventures)
10. Manufacture of parts for civilian helicopters
11. Manufacture of ground and surface effect aircrafts (the Chinese party holds controlling share)
12. Design and manufacture of UAV (unmanned aerial vehicle and aerostats (the Chinese party holds controlling share))
13. Design, manufacture and repair of aero-engine and its parts and aviation auxiliary power system (only in the form of equity joint ventures and cooperative ventures)
14. Design and manufacture of civilian aircraft carriage equipment (only in the form of equity joint ventures and cooperative ventures)

15. Design and manufacture of carrier rockets for civil use (the Chinese party holds controlling share)
16. Manufacture of aviation ground support equipment: civil airport facilities, security equipment for the operation of civil airports, ground support equipment for flight test, equipment for flight simulation and training, equipment for aviation test and measurement, equipment for aerospace ground test, equipment for integral test system of aircraft carriage equipment, special equipment for aviation manufacturing, special equipment for trial-manufacture of aviation materials, ground receiving and application equipment for civil aircrafts, ground test equipment for carrier rockets, equipment of mechanical and environmental experiment for carrier rockets
17. Optic-mechano-electronic products for spacecrafts, temperature control products for spacecrafts, satellite products testing equipment, manufacture of spacecraft structure and framework products
18. Manufacture of light-gas turbines
19. Design of ships and marine engineering equipment t with high and new technologies (only in the form of equity joint ventures and cooperative ventures).
20. Repair, design and manufacture of ships (including segmentation thereof) and marine engineering equipment (the Chinese party holds controlling share)
21. Design of low-, medium- and high-speed diesel engine for ships (only in the form of equity joint ventures and cooperative ventures).
22. Design and manufacture of parts of diesel engine for ships (only in the form of equity joint ventures and cooperative ventures).
23. Design and manufacture of low- and medium-speed diesel engines and crank axles for ships (the Chinese party holds controlling share)
24. Design and manufacture of cabin machinery and deck machinery for ships (the Chinese party holds relatively controlling share)
25. Design and manufacture of communication and navigation equipment for ships: communication system equipment for ships, electronic navigation equipment for ships, radars for ship use, gyro compass autopilot, internal public broadcasting system for ships, etc.
26. Design and manufacture of offshore fishing boats and yachts (only in the form of equity joint ventures and cooperative ventures).

(20) Electric machinery and equipment manufacturing industry

1. Manufacture of key equipment for thermal power station of 600,000 kilowatts supercritical, thermal power station of 1,000,000 kilowatts ultra supercritical (only in the form of joint ventures and cooperative ventures): boiler of feed water pump, circulation pump, high temperature and high pressure principal steam loop valve with more than 400°C working temperature and with more than 20Mpa working pressure
2. Manufacture of key equipment for 1,000,000kilowatts nuclear power station (only in the form of joint ventures and cooperative ventures): nuclear I grade pump and valve, nuclear II grade pump and valve
3. Technology and equipment manufacture for desulphurization, denitration and hop-pocket dust catcher of thermal power stations
4. Design and manufacture of sealing elements of nuclear power, thermal power equipment
5. Manufacture of large scale casting and forging pieces for nuclear power
6. Equipment for power transmission and transformation: (only in the form of joint ventures and cooperative ventures): amorphous state alloy transformer, big casing for high voltage electric equipment of 500 kilovolts or above for , operation organ for high voltage switch and independent type integral arcing contact , dry type of reactor for direct-current power transmission, design and manufacture of large power crystal valve tube for 6 inches direct-current converter valve, manufacture of material for contactor of apparatus accorded with European Union's RoHS directive and manufacture of welding materials free of Pb and Cd
7. Manufacture of complete sets of equipment or key equipment of new energy power generation (only in the form of joint ventures and cooperative ventures): equipment for photovoltaic power generation, geothermal power generation, tide power generation, wave power generation, waste power generation, methane power generation, 1.5 megawatts or above wind power generation
8. Manufacture of Stirling dynamotor units
9. Development and manufacture of linear and plane electrical machinery and its drive system
10. Manufacture of solar air-conditioning, heating system, solar dryness devices

11. Manufacture of biomass dryness pyrogenation system, biological gasification devices
 12. Manufacture of traction devices of alternating frequency and pressure modulation
 13. Manufacture of intellectualization plastic shell switch (voltage 380V, electrical current 1000A), intellectualization tank or drawer switch for large scale engineering, complete sets of devices of intellectualization electrical control and power distribution with bus
- (21)** Communication equipment, computer and other electronic equipment manufacturing industries
1. Manufacture of equipment for digital camcorders, digital audio systems, and making, editing and playing of digital cinemas
 2. Manufacture of flat panel display screens of TFT-LCD, PDP, OLED, FED (including SED, etc.) and materials for display screens
 3. Manufacture of large-screen color projection monitor using key components such as optical engine, light source, projection screen, high-definition projection tube and micro-projection equipment modules
 4. Manufacture of digital audio and video encoding and decoding equipment, digital radio and television studio equipment, digital cable television system equipment, digital audio broadcasting equipment, digital television up and down converters, digital television ground broadcasting SFN equipment, satellite digital television connecting station equipment, and SMATV front-end equipment
 5. Manufacture of high-performance digital single lens reflex cameras with 6 million pixels or above
 6. Design of integrated circuits, manufacture of large scale digital integrated circuits with 0.18 micron technology or under, manufacture of analog and digital-analog integrated circuits with 0.8 micron technology or under, and advanced packaging and testing of BGA, PGA, CSP, MCM
 7. Manufacture of large and medium computers, high-performance FLOPS computers, portable computers, high-grade TFLOPS or higher servers, large analog simulation systems, large control machines and controllers for industrial use.
 8. Digital signal processing systems and manufacture of integrated circuit boards
 9. Manufacture of graphic and image identifying and processing systems

10. Development and manufacture of large capacity laser and magnetic driver and related parts
11. Manufacture of high-speed storage system and intelligent storage equipment with capacity of 100 TB or more
12. Manufacture of large scale (width > 900mm) high-resolution color printing equipment, heads of high-resolution color printers with precision of 1400dbi or more, large scale (width > 900mm) high-definition color copying equipment
13. Manufacture of computer-aid design (CAD), computer-aid testing (CAT), computer-aid manufacturing (CAM) and computer-aid engineering (CAE) systems and other computer application systems
14. Development and manufacture of software products
15. Development and manufacture of materials for special purpose of electronics (excluding optical fiber preforms)
16. Manufacture of electronic equipment for special purpose, electronic testing tools and moulds
17. Manufacture of new electronic components: chips, sensing units and transducers, frequency control and selection components, hybrid integrated circuits, electric and electronic components, photo-electronic devices, new type electromechanical components, high-density interconnecting build-up boards, multilayer flexible boards, flexible-rigid printed circuit boards and package substrates
18. Manufacture of hi-tech green cells: dynamic nickel-hydrogen cells, Zn-Ni cells, Zn-Ag cells, lithium ion cells, high capacity and free of repairing canned lead-acid accumulators, solar cells, fuel cells, cylindrical zinc air cells
19. Manufacture of high-brightness LED with luminous efficiency of 50lm/W or more, epitaxial wafers (blue) of LED with luminous efficiency of 50lm/W or more, white luminous tubes with luminous efficiency of 50lm/W or more and power of 200mW or more
20. Development and manufacture of RFID chips
21. Development and manufacture of key parts for high-density digital CD-ROM drive
22. Replication of read-only compact discs and manufacture of recordable compact discs

23. Design and manufacture of satellites for civil use (the Chinese party holds controlling share)
 24. Manufacture of effective loads for satellites for civil use (the Chinese party holds controlling share)
 25. Manufacture of spare parts of satellites for civil use
 26. Manufacture of satellite communication systems equipment
 27. Manufacture of positioning and receiving equipment for satellite navigation and the key components
 28. Manufacture of optical communication measuring instruments and optical transponders with speed of 10Gb/s or more
 29. Manufacture of UWB communication equipment
 30. Manufacture of WLAN (WAN) equipment
 31. Manufacture of optical X-connection (OXC) equipment, ASON equipment, optical fiber communication transmission equipment with 40G/sSDH or above, and CWDM equipment
 32. Manufacture of asynchronous transfer model (ATM) and IP digital communication systems
 33. Development and manufacture of 3rd generation and subsequent mobile communication system cell phones, base stations, core network equipment and network inspection equipment
 34. Development and manufacture of high-end routers, network exchange board with one gigabytes or above capacity
 35. Manufacture of air traffic control equipment (only in the form of equity joint ventures and cooperative ventures)
- (22) Industries of manufacturing instruments and meters as well as machinery for cultural and office use
1. Manufacture of fieldbus control system and key components and parts
 2. Development and manufacture of large precision instrument: including electron microscope, laser scanning microscope, tunnel scanning microscope, lasers with the power of 2 KW, electron probe, photoelectric direct-reading spectrometer, Raman spectrometer, mass spectrometer, liquid chromatograph, Industrial chromatograph, gas chromatograph/mass spectrometer, nuclear magnetic resonator spectrometer, energy

spectrometer, x-ray fluorescence spectrometer, diffractometer, industrial CT, large-scale dynamic equilibrium test machine, automatic online inspecting system for mechanical parameters, hypervelocity centrifugal machine with rotating speed over 100000r/min, large-scale metallographic microscope, three coordinate measuring machine, laser comparator, electric survey instrument, 500-meter-above aviation electric and gamma ray spectrometer, borehole gravimeter and three-component magnetometer, high precision microgal gravity and aviation gravity gradient measuring instruments, field site rapid analysis instrument for geochemical elements, potable geological radar.

3. Manufacture of high accuracy digital voltage meter and ammeter (showing measuring range of more than seven and a half digits)
4. Manufacture of wattless power auto-compensation equipment
5. Manufacture of two-phase flowmeter and solid flowmeter
6. Manufacture of electronic gun coating equipment
7. Manufacture of industrial X ray flaw detector with the tube voltage of 800 KV or more
8. Manufacture of equipment with new technology for work safety and environmental protection examination and testing instruments
9. Manufacture of automatic test system of VXI bus (complying with the international criterion of IEEE1155)
10. Development and manufacture of underground coal mine monitoring and disaster forecast system and coal safety test comprehensive management system
11. Manufacture of engineering survey and geophysical observation equipment: digital triangulation system, 3D topographic model NC forming system (area > 1000×1000mm, horizontal error < 1mm, elevation error < 0.5mm), ultra-broadband seismometers ($\Phi < 5\text{cm}$, frequency band: 0.01-50Hz, equivalent ground motion velocity noise < 10⁻⁹m/s), seismic data set processing system, comprehensive underground earthquake and precursor observation system, precise vibroseis system, engineering acceleration measurement system, high-precision GPS receivers (precision 1mm+1ppm), INSAR image receiving and processing system, INSAR image receiving and processing system, micro-gel-gravimeters (precision < 1), satellite gravimeters, coherent or bi-polarization Doppler weather radars, visibility meters, meteorological sensors (temperature, pressure, humidity, wind, rainfall, cloud, visibility, radiation, frozen soil and snow depth), lightening-proof system, multilevel air dust sampling meters, 3-D ultrasonic anemometers, high-precision intelligent total stations, 3D laser

scanners, high-performance drilling-oriented diamond bits, non-cooperative-target laser range finders, wind profilers (with RASS), GPS electronic sounding apparatus system, CO₂/H₂O flux observation system, boundary-layer Doppler laser radars, particle spectrum equipment (3nm-20μm), high-performance data collectors and underwater gliders

12. Manufacture of new technology equipment of environmental protection detectors: new technology equipment of air quality measure, water quality test and flue-gas on-line detection, and equipment required for emergencies and new type differential optics multiple group analysis system for integrated system development, as well as self-calibration, combinable, low drift, networking telemetering, and remote control equipment and systems, and etc..
13. Manufacture of air pollution prevention equipment: High temperature and corrosion resistant filter materials, coal fired power plant wet desulphurization complete equipment, low NO_x burning device, flue gas denitrification catalyst and denitrification complete set installation, industrial organic exhaust purification equipment, and diesel vehicle exhaust purification equipment
14. Manufacture of water pollution prevention equipment: horizontal type spiral dewatering centrifuge, films and film materials, ozone generator of more than 10kg/h, chlorine dioxide generator of more than 10kg/h, UV disinfection facilities, and small sewage treatment equipment for rural areas.
15. Manufacture of solid waste treatment and disposal equipment: landfill site leakproof geomembrane, hazardous waste treatment devices, landfill site methane power generation facilities, and equipment for comprehensive utilization of scaled livestock and poultry cultivation wastes
16. Manufacture of environmental monitoring equipment: SO₂ automatic samplers and determinators, NO_x and NO₂ automatic samplers and determinators, O₃ automatic monitors, CO automatic monitors, flue gas and dust automatic samplers and determinators, portal toxic and harmful gas determinators, organic pollutants in-air automatic analyzers, COD automatic online monitors, BOD automatic online monitors, turbidity online monitors, DO online monitors, TOC online monitors, ammonia-nitrogen online monitors, radiation dosage detectors and ray analysis and measurement instruments
17. Manufacture of instruments and equipment for hydrological data collection, processing, transfer and flood warning
18. Manufacture of marine exploration and monitoring instrument and equipment: mesopelagic underwater video cameras and underwater

cameras, multi-beam detectors, mid-shallow formation profile detectors, navigating CTD detectors, fluxgate compasses, hydraulic winches, underwater sealed electronic connectors, anti-penetration seawater-desalination-oriented energy recycling equipment with efficiency more than 90%, anti-penetration seawater-desalination-oriented high pressure pumps with efficiency more than 85%, anti-penetration seawater-desalination films (desalination rate > 99.7%), low-temperature multi-effect distillation seawater-desalination equipment, marine ecosystem monitoring buoys, profile detection buoys, disposable measuring instrument of electrical conductivity, temperature and depth (XCTD), On-the-spot water quality measuring apparatus, intelligent marine water monitor-oriented chemical sensors (continuously working for 3-6 months), electromagnetic current meter sensors, acoustic Doppler current profilers (self-contained, directly-reading and marine-type), conductivity temperature and depth profilers, acoustic response releasers, tide measuring system for blue water (set deep into the ocean)

(23) Other manufacturing industries

1. Development and utilization of clean coal technological products and manufacture of equipment (gas coal, liquefied coal, water-coal slurry and industrial coal)
2. Comprehensive utilization of coal washing, powdered coal (including sweet plaster), gangue, etc.
3. Manufacture of fully bio-degradable materials

IV. Power, gas and water production and supplying industries

1. Construction and operation of power plants using such clean combustion technologies as Integrated Gasification Combined Circle (IGCC), circulating fluidized bed of 300,000 KW and above, and pressured circulating fluidized bed of 100,000 KW and above.
2. Construction and operation of back pressure power plants with combined heat and power
3. Construction and operation of hydro-power stations with power generation as major activity
4. Construction and operation of nuclear power stations (the Chinese party holds controlling share)
5. Construction and operation of new energy power stations (including using solar energy, wind energy, magnetic energy, geothermal energy, tidal wave energy, biological energy, etc.)

6. Industrialization of seawater utilization (direct utilization of seawater and seawater desalination) and recycling and reusing of industrial waste water
7. Construction and operation of urban water supply plants

V. Transportation, storage and postal industries

1. Construction and operation of arterial networks of railway (the Chinese party holds controlling share)
2. Construction and operation of railways branch, local railways and railway bridges, tunnel and ferry facilities (only in the form of equity joint ventures and cooperative ventures)
3. Comprehensive maintenance of high speed railways, passenger dedicated lines and inter-city railway infrastructure (the Chinese party holds controlling share)
4. Construction and operation of roads, independent bridges and tunnels
5. Road freight transportation companies
6. Construction and operation of wharf facilities for port public use
7. Construction and operation of airports for civil aviation use (the Chinese party holds relatively controlling share)
8. Aviation transportation companies (the Chinese party holds controlling share)
9. Aviation transportation companies for general use in agriculture, forestry, animal husbandry and fishery (only in the form of to equity joint ventures and cooperative ventures)
10. Regular and irregular international maritime transportation services (the Chinese party holds controlling share)
11. International container multi-modal transportation services
12. Construction and operation of petroleum (gas) pipelines, petroleum (gas) depots
13. Construction and operation of coal pipeline transportation facilities
14. Construction and operation of storage facilities relating to transportation service

VI. Wholesale and retail industries

1. Distribution of general commodities
2. Modern logistics

VII. Leasing and Commercial Services Industries

1. Accounting and auditing (only in the form of cooperative ventures and partnerships)
2. International economic, scientific, technological and environmental information consulting services
3. Undertaking system application management and maintenance, information technology support management, bank background service, financial settlement, human resources service, software development, call center, data process and other information technology and business process outsourcing service by way of drawing on service outsourcing.

VIII. Scientific research, polytechnic services and geological prospecting industries

1. Bio-engineering and bio-medical engineering technologies, biomass energy development technologies
2. Isotope, radiation and laser technologies
3. Ocean exploration and ocean energy exploration technologies, technologies for comprehensive utilization of ocean chemical resources, technologies for development and further processing of relevant products, development technologies for ocean medication and biochemical products
4. Ocean monitoring technology (ocean tide, meteorology and environment monitoring), technologies for submarine exploration and ocean resources exploring evaluation
5. Salt manufacture, extraction of potassium (K), bromine (Br), magnesium (Mg), lithium (Li) and deep processing thereof by comprehensive utilization of the desalinated seawater, and other high value-added utilization technologies for seawater chemical resources
6. Technology for energy saving development
7. Regeneration of resources and comprehensive resource utilisation technologies, development and application of technologies for re-utilization of industrial emissions.
8. Environmental pollution treatment and monitoring technologies

Unofficial translation courtesy of Squire, Sanders & Dempsey LLP

9. New technologies in energy saving and consumption reduction and Three Wastes treatment in chemical fiber production
10. Technology of desertification prevention and treatment of deserts
11. Comprehensive management technologies for pasture-livestock balance
12. Applied technology of satellites for civil use
13. Research and development centers
14. New and high technologies, new product development and enterprise nurturing centers

IX. Industries of water conservancy, environment and public facilities management

1. Construction and operation of comprehensive hydroprojects (the Chinese party holds controlling share)
2. Construction and operation of urban enclosed roads
3. Construction and operation of urban rail transportations such as underground and light rail systems (the Chinese party holds controlling share)
4. Construction and operation of sewage and refuse disposal plants, dangerous wastes disposal and treatment plants (incineration plants, dumping grounds) and environmental pollution treatment facilities

X. Education

1. Higher education institutions (only in the form of equity joint ventures and cooperative ventures)

XI. Health, social security and social welfare Industries

1. Service institutions for the aged, the disabled and children

XII. Culture, sports and recreation industries

1. Operation of places for shows and performances (the Chinese party holds controlling share)
2. Operation of sports venues, body-building, competitive performances, physical training and intermediate services

B CATALOGUE OF RESTRICTED FOREIGN INVESTMENT INDUSTRIES

I. Agriculture, forestry, animal husbandry and fishery industries

1. Selection and breeding of new crop species and development and manufacture of seeds (the Chinese party holds controlling share)
2. Processing of timber of valuable tree species (only in the form of equity joint ventures and cooperative ventures)
3. Cotton (unginned cotton) processing

II. Mining Industry

1. Exploration and exploitation of special and rare coal varieties (the Chinese party holds controlling share)
2. Exploration and exploitation of barytes (only in the form of equity joint ventures and cooperative ventures)
3. Exploration and exploitation of precious metals (gold, silver and plutonium class)
4. Exploration and exploitation of diamonds and other non-metallic precious stones
5. Exploitation and mineral separation of phosphorite
6. Exploitation of camellite and collbranite ores
7. Exploitation of celestite
8. Exploitation of ocean manganese nodules and sea sand (the Chinese party holds controlling share)

III. Manufacturing industries

(1) Agricultural product and subsidiary foodstuff processing industries

1. Edible grease processing from soybeans and rapeseed (the Chinese party holds controlling share); in-depth corn processing
2. Manufacture of biological liquid fuel (fuel ethanol, bio-diesel) (the Chinese party holds controlling share)

(2) Beverage manufacturing industry

Unofficial translation courtesy of Squire, Sanders & Dempsey LLP

1. Manufacture of millet wine and well-know brand name spirits (the Chinese party holds controlling share)
2. Manufacture of carbonic acid drinks
- (3) Tobacco products industry
 1. Leaf tobacco threshing and redrying
- (4) Printing industry and duplication of recording media
 1. Printing of publications (the Chinese party holds controlling share, excluding package printing)
- (5) Petroleum processing and coking industries
 1. Construction and operation of oil re-finery plants with annual output up to 8 million tons
- (6) Chemical raw materials and chemical products manufacturing industries
 1. Manufacture of sodium hydroxide and potassium hydroxide
 2. Manufacture of light-sensitive materials
 3. Manufacture of benzidine
 4. Manufacture of chemicals easily converted into drugs (ephedrine, 3,4 - subunit phenyldioxy - 2 - acetone, benzene acetic acid, 1 - phenyl - 2 - acetone, piperonal, safrole, isosafrole, acetic anhydride)
 5. Manufacture of chlorofluorocarbons (CFC) or hydrogenous chlorofluorocarbons (HCFC), tetrafluoroethylene, aluminium fluoride, hydrofluoric acid
 6. Manufacture of polybutadiene rubber, emulsion-polymerized styrene-butadiene rubber, thermoplastic styrene-butadiene rubber
 7. Manufacture of methane chlorides (excluding methyl chloride), polyvinyl chloride produced by carbide process
 8. Manufacture of titanium oxide using the sulphuric acid method, potassium permanganate using the open-hearth furnace method
 9. Processing of collbranite
 10. Manufacture of barium salt and strontium salt

(7) Medical and pharmaceutical manufacturing industries

1. Manufacture of chloramphenicol, penicillin G, lincomycinum, gentamycin, dihydrostreptomycin, amikacin, tetracycline hydrochloride, terramycin, midecamycin, leucomycin, ciprofloxacin, norfloxacin and ofloxacin
2. Manufacture of analgin, paracetamol, vitamin B1, vitamin B2, vitamin C, vitamin E, compound vitamin preparations, and oral calcium preparations
3. Manufacture of vaccines included in State Immunity Plans (not including BCG vaccine and poliomyelitis vaccine), vaccine types, antitoxins and toxoids (diphtheria-pertussis-tetanus vaccine, measles vaccine, endemic encephalitis B vaccine, epidemic cerebrospinal meningitis vaccine, etc.)
4. Manufacture of narcotic drugs and Category I psychochemical raw materials (the Chinese party holds controlling share)
5. Manufacture of blood products
6. Manufacture of non-self-destruction disposable syringes, liquid infusion machines, blood transfusion machines and blood bags

(8) Chemical fibers manufacturing industry

1. Manufacture of conventional reel fabric cutters for chemical fibers
2. Manufacture of viscose short-staple

(9) Rubber products manufacturing industry

1. Manufacture of retread tires (excluding meridian tires) and low-performance industrial rubber components

(10) Non-ferrous metallurgy and rolling processing industries

1. Smelting of such noble metals as tungsten, molybdenum, tin (excluding tin compounds), and antimony (including antimony oxide and antimony sulphide)
2. Smelting of such nonferrous metals as electrolytic aluminium, copper, lead, and zinc
3. Smelting and separation of rare earth (only in the form of equity joint ventures and cooperative ventures)

(11) Metalwork industry

1. Manufacture of containers

(12) General equipment manufacturing industry

1. Manufacture of various types of general-level (P0) bearings and parts (steel ball, cage) and blanks thereof
2. Manufacture of wheel or crawler/track lifting machinery with the capacity of below 300 tons (only in the form of equity joint ventures and cooperative ventures)

(13) Special equipment manufacturing industry

1. Manufacture of middle and lower range B-type ultrasonic monitors
2. Manufacture of equipment for making ordinary terylene filament and short- staple
3. Manufacture of up to 320 horsepower bulldozers/earthmovers, up to 30 tons hydraulic excavators, up to 6 tons wheel loaders, up to 220 horsepower graders, rollers/compactors, forklifts, up to 135 tons off-highway automatic dumpers, pavement planing and reworking equipment, garden machinery and tools, and commercial concrete machinery (pumps, mixer trucks, mixing stations, pump trucks)

(14) Transportation equipment manufacturing Industries

1. Repair, design and manufacture of general vessels (including segment thereof) (the Chinese party holds controlling share)

(15) Communication equipment, computers and other electronic equipment manufacturing industries

1. Ground receivers for satellite television broadcasting and key components
2. Manufacture of products relating to fiscal cash register/tax-control POS

IV. Power, gas and water production and supplying industries

1. Construction and operation within the small power grids such as Tibet, Xinjiang and Hainan of coal burning and steam condensing thermal power stations with single unit capacity of up to 300,000 KW, thermal power plants of dual-purpose unit for thermoelectricity cogeneration with the single unit capacity of up to 100,000 KW
2. Construction and operation of power grids (the Chinese party holds controlling share)

V. Transportation, storage, and postal industries

1. Railway cargo transportation companies

2. Railway passenger transportation companies (the Chinese party holds controlling share)
3. Highway passenger transportation companies
4. Companies engaged in vehicular transportation to and from China
5. Waterway transportation companies (the Chinese party holds controlling share)
6. General aviation companies of photographing, exploration and industrial purposes (the Chinese party holds controlling share)
7. Telecommunication companies: value-added telecommunication businesses (with the foreign proportion of no more than 50%); mobile voice and data services under the category of basic telecommunication (with the foreign proportion of no more than 49%); domestic and international businesses under the category of basic telecommunication (with the foreign proportion of no more than 35%, up to 49% to be allowed no later than Dec.11, 2007)

VI. Wholesale and retail industries

1. Commercial companies such as direct selling, mail-order, e-commerce, franchising, operation on commission, sales commission, business administration, etc.
2. Wholesale, retail and goods distribution of grains, cotton, vegetable oil, sugar, pharmaceutical products, tobacco, automobiles, crude oil, pesticides, agricultural films, and fertilizer (where the chain store has more than 30 branch outlets, selling commodities of various types and brands from multiple suppliers, the Chinese party shall hold controlling share)
3. Re-distribution of audio-video products (excluding films) (only in the form of cooperative ventures controlled by the Chinese party)
4. Commodity auction
5. Agency companies for shipping (the Chinese party holds controlling share), foreign maritime cargo handling (only in the form of equity joint ventures and cooperative ventures)
6. Wholesale of processed oil, and construction and operation of petrol stations (where the same foreign investor sets up a chain gas station having more than 30 branches and selling processed oil of various types and brands from multiple suppliers, the Chinese party holds controlling share)

VII. Finance industries

1. Banking, financial leasing companies, finance and trust investment companies, and currency brokerage companies
2. Insurance companies (with the foreign proportion of no more than 50% for life insurance companies)
3. Securities companies (limited to the underwriting of A Shares, underwriting and trading of B shares, H shares and governmental and corporate bonds), securities investment fund management companies (with the foreign proportion of no more than 49%)
4. Insurance brokerage companies
5. Futures company (the Chinese party holds controlling share)

VIII. Real estate industry

1. Development of block land (only in the form of equity joint ventures and cooperative ventures)
2. Construction and operation of luxury hotels, resorts, high quality office buildings and international exhibition centres
3. Transactions in the real estate secondary market; real estate agencies or brokerage companies

IX. Leasing and commercial services industries

1. Legal consultancy services
2. Market research (only in the form of equity joint ventures and cooperative ventures)
3. Companies engaged in credit investigation and rating services

X. Scientific research, polytechnic services and geological prospecting industries

1. Surveying and mapping companies (the Chinese party holds controlling share)
2. Companies engaged in import/export commodities inspection, appraisal and authentication
3. Photographing services (including stunt photographing such as aerial photography but excluding the aerophotography for the purpose of surveying and mapping, which is only in the form of equity joint ventures)

XI. Industries of water conservancy , environment and public facility management

1. Construction and operation of pipe networks for fuel gas, heat, and water supply and drainage in large cities (the Chinese party holds controlling share)

XII. Education

1. Secondary education institutions (only in the form of equity joint ventures and cooperative ventures)

XIII. Health, social security and social welfare industries

1. Medical organisations (only in the form of equity joint ventures and cooperative ventures)

XIV. Culture, sports and recreation industries

1. Radio and television programmes production and film production (only in the form of cooperative ventures)
2. Construction and operation of cinemas (the Chinese party holds controlling share)
3. Construction and operation of big-scale theme parks
4. Brokerage institutions for shows and performances (the Chinese party holds controlling share)
5. Operation of entertainment places (only in the form of equity joint ventures and cooperative ventures)

XV. Any other industries restricted by the State or by the provisions of treaties concluded between China and other countries or of provisions of international treaties to which China is a signatory

C CATALOGUE OF PROHIBITED FOREIGN INVESTMENT INDUSTRIES

I. Agriculture, forestry, animal husbandry and fishery industries

1. Cultivation and planting of rare, and special valuable Chinese species (including genes of fine breeding from plantation, animal husbandry and aquatic industries)
2. Production and development of genetically modified plant seeds, breeder livestock and poultry, and aquaculture seedling
3. Harvesting of aquatic life in sea areas under the jurisdiction of China or inland waters

II. Mining industry

1. Exploration and exploitation of tungsten, molybdenum, tin, antimony and fluorite
2. Exploration, exploitation and dressing of rare earth
3. Exploration, exploitation and dressing of radioactive mineral ores

III. Manufacturing industries

(1) Beverage manufacturing industry

1. Processing of green teas and special variety teas using Chinese traditional technology (including famous teas and black teas)

(2) Medical and pharmaceutical manufacturing industries

1. Processing of Chinese medicine materials listed in the Regulation on Preservation and Management of Wild Chinese Medicinal Material Resources and the *List of Rare and Endangered Plants in China*
2. Application of traditional manufacturing techniques for Chinese medical drinks and tablets, such as steaming, frying, moxibustion and ustulation, and manufacture of secret recipes for manufactured Chinese medicines

(3) Non-ferrous metallurgy and rolling processing industries

1. Smelting and processing of radioactive mineral ores

(4) Special equipment manufacturing industry

1. Manufacture of weaponry and ammunition

- (5)** Electric machinery and equipment manufacturing industry
 - 1. Manufacture of open type (i.e., direct discharge of acid mist) lead-acid batteries, button type silver oxide batteries, pasted Zn-MnO₂ cells, and nickel-cadmium cells
- (6)** Industrial products and other manufacturing industries
 - 1. Ivory carving
 - 2. Tiger bone processing
 - 3. Manufacture of bodiless lacquer-ware
 - 4. Manufacture of enamel-works
 - 5. Xuan paper and Chinese ink stands
 - 6. Manufacture of products causing cancer, def
- IV.** Power, gas and water production and supplying industries
 - 1. Construction and operation outside the small power grids such as Tibet, Xinjiang and Hainan of coal burning and steam condensing thermal power stations with single unit capacity of up to 300,000 KW, thermal power plants of dual-purpose unit for thermoelectricity cogeneration with the single unit capacity of up to 100,000 KW
- V.** Transportation, storage and postal industries
 - 1. Air traffic control companies
 - 2. Postal companies
- VI.** Leasing and commercial service industries
 - 1. Social research
- VII.** Scientific research, polytechnic services and geological prospecting industries
 - 1. Development and application of human stem cells, genetic diagnosis and treatment technology
 - 2. Geodesy, hydrographical surveying and charting, surveying aerial photography, administrative boundary surveying and mapping, topographic map compilation in compilation of map, and navigation electronic map compilation in general map compilation
- VIII.** Industries of water conservancy, environment and public facility management

1. Construction and operation of natural protection zones and wetlands of international importance
2. Development of State protected wildlife resources of Chinese origin

IX. Education

1. Compulsory education institutions; educational institutions in special field such as military, police, politics, party schools, etc

X. Culture, sports and recreation industries

1. News organizations
2. Publication, general distribution and import business of books, newspapers and magazines
3. Publication, production, and import business of audio-video products and electronic publications
4. Various levels of radio stations, television stations, broadcasting and television channels (frequencies), radio and television transmission coverage networks (transmitters, relay stations, radio and television satellites, satellite up-stations, satellite transmission stations, microwave stations, monitoring stations, cable radio and television transmission coverage networks) at all levels
5. Companies engaged in production and operation of radio and television programs
6. Film production companies, film distribution companies and theatre chains companies
7. News websites, network audio-visual programs service, business sites for internet access services, and internet culture operation
8. Video showing companies
9. Construction and operation of golf courses
10. Gambling industry (including gambling racecourses)
11. Pornography industry

XI. Other industries

1. Projects endangering the safety and efficacy of military facilities

- XII.** Any other industries prohibited by the State or by the provisions of treaties concluded between China and other countries or of international treaties to which China is a signatory