

Order of National Development and Reform Commission and the Ministry of Commerce

(No.57)

The Catalogue of Industries for Guiding Foreign Investment (Revised 2007), which was approved by the State Council, is hereby promulgated and shall come into force as of December 1st, 2007. The Catalogue of Industries for Guiding Foreign Investment (Revised 2004), which was promulgated by National Development and Reform Commission and the Ministry of Commerce on November 30th, 2004, shall not be implemented any longer since then.

Director of National Development and Reform Commission: Ma Kai

Minister of Commerce: Bo Xilai

October 31st, 2007

Catalogue of Industries for Guiding Foreign Investment (Revised 2007)

Catalogue of Industries Encouraged for Foreign Investment

I. Agriculture, Forestry, Animal Husbandry and Fishery Industries

1. Improvement of low-and medium-yielding fields
2. Planting, development and production of woody edible oil, flavorings and industrial raw materials
3. Non-pollution cultivation techniques of vegetables (including edible fungus and melon watermelon), dry and fresh fruit and tea, as well as serial development and production of these products
4. Development and production of sugar, fruit trees, vegetables, forage grass and the related new techniques
5. Production of flowers and plants, as well as construction and operation of nursery bases
6. Planting of rubber, sisal and coffee

7. Planting and cultivation of Chinese medicinal materials (limited to equity joint ventures and cooperative joint ventures)
8. Reusing in fields and comprehensive utilization of straws and stalks of crop, development and production of organic fertilizer resources
9. Planting of forest trees (bamboos), and fostering of fine varieties, new varieties of polyploid wood and new varieties of transgene wood
10. Breeding of aquatic fingerlings (not including special and precious quality varieties of our country)
11. Construction and operation of ecological environment protection projects such as tree and grass planting for prevention and control of desertification and soil erosion, etc.
12. Breeding of aquatic products, cage culture in deep water, large-scale aquaculture and breeding of ecotype marine species

II. Mining and Quarrying Industries

1. Exploration and exploitation of coal bed gas, as well as utilization of mine gas (limited to equity joint ventures and cooperative joint ventures)
2. Exploration and exploitation of oil and natural gas with venture capital (limited to equity joint ventures and cooperative joint ventures)
3. Exploitation of low-permeability hydrocarbon reservoirs (fields) (limited to equity joint ventures and cooperative joint ventures)
4. Development and application of new technologies that increase the recovery ration of crude oil (limited to equity joint ventures and cooperative joint ventures)
5. Development and application of new oil exploration and exploitation technologies such as geophysical exploration, well drilling, well logging, and downhole operation, etc. (limited to cooperative joint ventures)
6. Exploration and development of oil shale, oil sand, heavy oil, extra heavy oil and other unconventional crude oil resources (limited to cooperative joint ventures)
7. Exploration, mining and separation of iron mines and manganese mines
8. Development and application of new technologies improving the utilization rate of mine tailings.

and the comprehensive application of technologies recovering the ecological environment in mines

9. Exploration and development of combustible ice in the sea (limited to cooperative joint ventures)

III. Manufacturing Industry

(I). Agricultural and nonstaple foodstuff processing industry

1. Development and production of biological, straw and aquatic feedstuff

2. Processing of aquatic products, cleansing and processing of seashell, development of seaweed functional food

3. Storage and processing of vegetables, dry and fresh fruits and fruit products and livestock and poultry products

(II). Food manufacturing industry

1. Development and production of food for baby, food for the old, and functional food

2. Development, production and processing of forest food

3. Production of natural food additives and ingredients (limited to equity joint ventures and cooperative joint ventures)

(III). Beverage manufacturing industry

1. Development and production of fruit and vegetable beverage, protein beverage, tea beverage, coffee beverage and plant beverage

(IV). Tobacco processing industry

1. Processing of cellulose diacetate and tobacco tows (limited to equity joint ventures and cooperative joint ventures)

2. Production of tobacco slices by the method of paper making (limited to equity joint ventures)

and cooperative joint ventures)

3. Processing and production of filter tips (limited to equity joint ventures and cooperative joint ventures)

(V). Textile industry

1. Manufacturing of special textile for industrial use with new and high tech

2. Weaving, dyeing and post-dressing of high-grade fabric surface material

3. Processing of products made of special natural fibre products (including animal fibre hair other than wool, and fibrilia, bamboo fibre, mulberry silk and color cotton, etc.) which satisfy the requirements on comprehensive utilization of ecological resource and requirements on environmental protection

4. Manufacturing of clothes with computer integrated manufacturing system

5. Manufacturing of top grade carpets, embroidering products and drawnwork products

(VI). Leather, fur, feather (hair) and related products

1. Processing of leather and fur with cleansing technology

2. Post ornament and processing of leather with new technologies

3. Processing of top grade leather (sofa leather and car cushion leather)

(VII). Lumber Processing, and Wood, Bamboo, Vine, Palm and Grass Products Manufacturing Industries

1. Development and production of new technology and new products for the comprehensive utilization of three forestry residuals (logging slash, bucking residual and processing residual) "sub-quality, small and firewood" lumber and bamboo

(VIII). Paper Making and Paper Product Manufacturing Industries

1. In forest-paper integrated construction, scale production of chemical wood pulp with a single production line of 300,000 tons/y or above and chemical mechanical wood pulp with a single production line of 100,000 tons/y or above as well as the high-class paper and paper boards

produced simultaneously (limited to equity joint ventures and cooperative joint ventures)

(IX). Petroleum Processing and Coking Industry

1. Deep-processing of needle coke and coal tar

(X). Chemical Raw Material and Chemical Products Manufacturing Industry

1. Mass production of ethane with an annual production capacity of over 800 thousand tons (the Chinese party shall hold a relatively dominant position)
2. Processing and manufacturing of downstream ethylene products, and comprehensive utilization of ethane C5-C9 byproducts (excluding butadiene synthetic rubber)
3. Production of corvic with an annual output of 200,000 tons or more (ethene method)
4. Production of further processed products of bleaching powder (sodium method), polyvinyl chloride (PVC) and organosilicon
5. Production of Benzene, toluene, xylene, ethylene glycol and other basic organic chemical raw materials as well as their derivatives
6. Supporting raw materials for composite materials: production of bisphenol A, and production of propylene oxide with hydrogen peroxide or propylene oxide method
7. Raw materials for synthetic fibre: production of extract terephthalic acid, caprolactam, nylon 66 salt and melt-spinning spandex resin
8. Synthetic rubber: production of liquor styrene butadiene rubber (SBR) (not including thermoplastic SBR), butyl rubber, isoprene rubber, polyurethane rubber, acrylic acid rubber, chlorohydrine rubber, ethylene propylene rubber, nitrile butadiene rubber, fluorine rubber, silicon rubber and other special varieties of rubber
9. Engineering plastics and plastic alloys: production of polyphenylene oxide (PPO), engineering plastic nylon 11 and nylon 12, polyimides, polysulfone, aromatic polyester (PAR), and liquid crystalline polymer, etc.
10. Fine chemistry: production of catalysts, auxiliary agents, new additives, new technologies, process technologies for commercializing dyes and coloring agents, high-tech chemicals for electronic use and paper-making use, food additives, feedstuff additives, leather chemicals (excluding N-N dimethyl formamide), oilfield auxiliary agents, surface active agents, water treatment agents, adhesives, and inorganic fibre and nano materials, as well as the deep-processing

of pigment envelope

11. Production of low hysteresis and high abrasion resistant carbon black
12. Production of environment-friendly printing ink and arene-oil
13. Production of natural spices, synthetic spices and single ion spices
14. Production of high-performance coatings, water-base coatings and assorted water resin
15. Production of substitute for hydro-chloro-fluoro-carbons (HCFC)
16. Production of organic fluorine chemical products (not including hydro-chloro-fluoro-carbons, hydro-chloro-fluoro-carbon and tetrafluoroethylene)
17. Production with fluorine resources recovered from phosphorus chemical industry and aluminium smelting industry
18. Production of large chemical products using coal as raw material (the Chinese party shall have a controlling interest)
19. Development and production of new forestry chemical technologies and products
20. Production of ionic membrane for caustic soda, non-organic separation membrane and functional membrane
21. Development and production of inorganic, organic and biological membranes used for environment protection
22. Development and production of new fertilizers: bio-fertilizer, high-concentration potassic fertilizer, compound fertilizer, controlled release fertilizer, compound microbial inoculant, compound microbial manure, straw and garbage rotten agents and special-function microbiological preparations
23. Development and production of highly-efficient and safe new varieties of pesticides as well as high-performance new agents of pesticides
24. Development and production of biological pesticides and products for biological control: microbial pesticide, microbial germicide, agricultural antibiotic, insect pheromone, natural enemy insects and microbial herbicide
25. Comprehensive utilization, treatment and disposal of waste gas, liquid and residue
26. Production of organic high molecular materials: vessel body coatings made from modified

organosilicon, plane covering coatings, rare earth cerium sulphide red dye, lead-free electronic packaging materials, photolithography paste of the series specially used for color plasma display screen, superfine fibre with a small diameter and a big specific surface area, high-precision fuel filter paper, lithium ionization cell diaphragm, multi-function compound auxiliary agents for plastic processing, citric acid glycerin ester, fludioxonil and cyazofamid

(XI). Medical and Pharmaceutical Products Manufacturing Industry

1. Production of new types of compound medicines or medicines with active ingredients (including pharmaceutical products and preparations)
2. Amino acid: production of serine, tryptophan, histidine, and methionine used for feedstuff, etc.
3. Production of new types of anti-carcinogens, cardio-vascular and cerebrovascular medicines and nervous system medicines
4. Production of new, effective and economical contraceptive medicines and devices
5. Production of new medicines which are produced with biological engineering technologies
6. Production of heterocycle fluorides and other fluorine-containing high physiologically active drugs and intermediate
7. Production of gene engineering vaccines (AIDS vaccine, HBV vaccine and contraception vaccine)
8. Production of biological vaccines
9. Production of BCG vaccine and poliomyelitis vaccine
10. Development and production of marine medicines
11. Pharmaceutical preparations: production of new forms of drugs and new products prepared with slowed release, controlled release, target preparation, percutaneous absorption and other new technologies
12. Development and production of new types of pharmaceutical adjuvants
13. Production of biomedical materials and products (excluding those processed from human bodies and the specimens, as well as human organs, tissues and the specimens)
14. Production of antibiotic material medicals used for animals (including antibiotic and chemical synthesis)

15. Development and production of new products or new forms of antibacterial, anthelmintic, insecticide, anti-coccidiosis medicines used for animals

16. Production of new types of diagnosis reagents

(XII). Chemical Fiber Manufacturing Industry

1. High-tech chemical fibre production of differential chemical fibre, aramid fibre, carbon fibre, ultrahigh strength high-modulus polyethylene and polyphenylene sulfide (PPS), etc.

2. Production of environment-friendly chemical fibre such as cellulose fiber by new solvent way, etc.

3. Production of new types of polyester for fibre use and non-fibre use: polytrimethylene terephthalate (PTT), polyethylene glycol (PEN), and polybutylene terephthalate (PBT)

4. Production of new types of fibrous materials with renewable resources and biomass engineering technologies: polylactic acid (PLA) fibre, and polyatomic alcohol (PDO) fibre by biological methods

5. Production of polyamide with the single line daily output of 100 tons or more

6. Production of aramid fibre used for radial tyres, and cord yarn

(XIII). Plastics Manufacturing Industry

1. Development of new technologies for agricultural plastic film, and production of new agricultural plastic film products (photolysis film, multi-functional film and raw materials)

2. Clearing up and reutilization of plastic waste

3. Development of new plastic soft packing technologies, and production of new plastic soft packing products (high-obstructive and multi-functional film and raw materials)

(XIV). Nonmetallic Mineral Products Manufacturing Industry

1. Production of new types of energy-saving and environment-friendly building materials: light, strong, and multi-functional wall materials, high-class and environment-friendly decorating and finishing materials, high-quality water-tight materials, and effective thermal insulation materials

2. Production of energy-saving and high-efficient chemical building materials by replacing steel and wood with plastic
3. Production of elastic and plastic modified bitumen waterproof rolls with an annual output of 10 million square meters, quality ethylene propylene terpolymer waterproof rolls whose width is 2m or above and the matching materials, durable PVC rolls and TPO waterproof rolls
4. Production of glass shielding electromagnetic wave, glass basal plate for microelectronic use, heat-transmitting lead-free glass, diffuser of large quartz glass of electronic grade, super 2G and 3G microchannel plate, optical fiber panel, image inverter and glass light cone
5. Production of glass fibre (through direct-melt process) and glass steel works with an annual output of 50,000 tons and above
6. Production of continuous glass fiber strand mats, glass fiber surface mats, glass fiber cloth and mats for microelectronic use
7. Production of optical fiber for image bundles and laser medical treatment
8. Production of sanitary porcelain with an annual production of one million pieces or more
9. Standard polishing of pottery raw materials and production of high-class decorating materials used for pottery
10. Production of cement kiln, high-class (electronic) glass, ceramics, glass fiber, micropore carbon brick and other high-class refractory materials in kiln and calciner
11. Production of ceramic vehicles, aluminium nitride ceramic substrate and porous ceramics used for automobile catalyzing device
12. Production of non-organic and non-metal materials and products: artificial crystal, carbon-carbon composite materials, special-purpose ceramics, special-purpose sealing material, high-speed oil seal materials, special-purpose binding material, special-purpose emulsion materials, underwater sound absorbent rubber products, normal temperature thermal conductivity, and thermal insulation of 0.025W/Mk or below
13. Production of high-tech composite materials: Production of high-tech composite materials: continuous fiber reinforcement thermoplastic composite materials and prepreg materials, auxiliary materials for forming resin-base composite materials resisting temperature of 300°C or above, vane of resin-base composite materials, high-class sports goods made of resin-base composite materials, special-performance glass reinforced plastic pipe (pressure > 1.2 MPa), special-function composite materials and products, deep-water and phreatic-water composite material products, composite material products for medical and recovery use, carbon-carbon composite materials and

brake sheet, high-performance ceramic-base composite materials and products, metal-base composite materials and products, metal multilayered composite materials and products, ultra high pressure composite pipes (pressure \geq 320MPa), and large passenger aircraft tyres

14. Production of raw materials for precise and high-performance ceramics and functional ceramics: ultrafine silicon carbide powder (purity > 99%, mean diameter < 1 μ m), ultrafine silicon nitride powder (purity > 99%, mean diameter < 1 μ m), high-purity ultrafine alumina powder (purity > 99%, mean diameter < 0.5 μ m), low-temperature sintering zirconia powder (sintering temperature < 1350°C), high-purity aluminium nitride powder (purity > 99%, mean diameter < 1 μ m), rutile titania powder (purity > 98.5%), silica hydrated white carbon black (particle diameter < 100nm) and barium titanate ((purity > 99%, mean diameter < 1 μ m)

15. Manufacturing of diamond film tools, and ultra-thin synthetic diamond saw blade with a thickness of 0.3mm or below

16. Intensive processing of non-metal mineral products (ultra-fine grinding, high purifying, high refining and modifying)

17. Production of ultra-high power graphite electrode

18. Production of pearl luster mica (diameter of 3-150 μ m)

19. Production of multi-dimension and multi-direction integer weaving fabric and profile modeling fabric

20. Treating combustible industrial wastes and domestic garbage with new dry-process or harmless treatment cement kiln

(XV) Nonferrous Metals Smelting and Pressing Industry

1. Production of silicon single-crystal, polished slice and multicrystal silicon with diameter of 200mm or above

2. Production of new and high-tech non ferrous materials: new-type high-performance hydrogen storage materials, lithium ionization battery electrode materials, compound semiconductor materials (gallium arsenide, gallium phosphide, indium phosphide, gallium nitride), high-temperature superconducting materials, memory alloy materials (nickel titanium, copper-base and iron-base memory alloy materials), ultra-fine (nano) calcium carbide and ultrafine (nano) crystal hard alloy, ultra-hard compound materials, noble metal compound materials, aluminum foil for radiator, middle and high-pressure cathode capacitance aluminium

foil, special-type large aluminium alloy section steel, precise aluminium alloy die forging, overhead conductor for electrified railway lines, ultra-thin copper straps, copper alloy materials for corrosion-resistant heat exchanger, high-performance copper-nickel and copper-iron alloy straps, materials for processing beryllium copper straps, lines, pipes and rods, high-temperature-resistant and anti-senescence tungsten filament, magnesium alloy casting, lead-free solder, magnesium alloy and products applying it, foam aluminium, titanium alloy belt material and titanium welded pipe, sponge zirconium at atomic energy level, and products from deep-processing of tungsten and molybdenum

(XVI) Metal Product Manufacturing Industry

1. Manufacturing of light-weight and environment-friendly materials for automobiles and motor-vehicles (aluminum sheet for car body, aluminium magnesium alloy materials, and motorcycle aluminium alloy frame, etc.)
2. Development and production of architectural hardware, plumbing equipment and auxiliary hardware parts.
3. Manufacturing and processing (including the printing and coating of the inside and outside wall) of metal packing materials for packaging various kinds of oil and foodstuffs, fruit and vegetables, drinks and chemical products for daily use, etc. (the thickness of which shall be 0.3mm or below)

(XVII) General Machinery Manufacturing Industry

1. Manufacturing of high-class digital control machine tool and key components: 5-axis CNC machine tool, CNC coordinate milling centers, CNC coordinate grinding machine, 5-axis CNC system and servo mechanism, and high-speed ultra-hard cutting tool used for precise numerically controlled processing
2. Manufacturing of multi-station shingling forming machine of 1000 tons or above
3. Manufacturing of equipment for dismantling and crushing automobiles discarded as useless
4. Manufacturing of FTL flexibility production line
5. Manufacturing of vertical multiple joint robots, welding robots and welding apparatus and equipment
6. Manufacturing of special-type processing machines: complete sets of laser cutting and welding equipment, laser precision machining equipment, numerically controlled low-speed HS-WEDM machine, and sub-micron superfine disintegrator

7. Manufacturing of wheeled/crawler lifting machinery of 300 tons or above (limited to equity joint ventures and cooperative joint ventures)
8. Design and manufacturing of through-shaft high-voltage plunger pump under pressure (35-42MPa) and its motor, and low-speed large torque motor under pressure (35-42MPa)
9. Manufacturing of servoelements under electronic-hydraulic proportion control
10. Design and manufacturing of integrate multiple-way valves under pressure (21-31.5MPa), pneumatic electromagnetic valves with a power of 0.35W or below and high-frequency electricity-controlled gas valves of 200Hz or above
11. Design and manufacturing of hydrostatic fluid-pressure drive units
12. Development and manufacturing of non-contact gas blanket sealing under pressure of 10MPa and dry gas sealing under pressure of 10MPa (including experimental facilities)
13. Development and manufacturing of equipment with high molecular materials for cars (friction plate, remodeled phenolic aldehyde piston and nonmetal fluid pressure master and slave pumps, etc.)
14. Manufacturing of car boss axletree of 3 and 4 generation (function elements of boss axletree of flange and transducer inside or outside of the axletree), digital control machine tool or processing centre axletree of high or mid class (the processing center should have more than three axis interlocking function and 3-4 μ m repeated precision), high-speed wire or board rolling mill axletree (assistant axletree and roller axletree of single-wire rolling mill of more than 120m/s and of thin-board rolling mill of more than 2mm), high-speed railway axletree (with speed of more than 200km/h), low-noise axletree of vibration of less than Z4 (Z4, Z4P, V4, V4P), level P4, P2 axletree of various axletree
15. Manufacturing of high-temperature resistant insulation materials (with F, H insulation class) and moulded insulation products
16. Development and manufacturing of rubber and plastic sealing parts for hydropneumatic use
17. Manufacturing of high-strength fasteners with the strength level of 12.9 or above
18. Manufacturing of casted and forged semifinished products for cars and motorcycles
19. Remanufacturing of machine tool, automobile components (excluding the five big assembly) and engineering machine

(XVIII) Special-Purpose Equipment Manufacturing Industry

1. Manufacture of trackless equipment for mining, loading and transporting in mines: 100-ton+ mechanical-driven dump trucks for mining, mobile crushers, 3, 000 cu.nu/h+ bucket excavator, 5 cu.m+ mining loaders and 2000 kw+ electricity-dragged coal mining machine, etc.

2. Manufacturing of equipment for geophysical prospecting and well logging: MEME seismometer, digital telemetric seismic instrument, digital imaging system, digital control well logging system, horizontal well logging equipment, directional well logging equipment, drilling machine, and MWD logging-while-drilling tool

3. Manufacturing of oil prospecting, well drilling and gathering and transportation facilities: floating drilling system and floating production system with a working depth of water of 500m or above, seafloor oil extraction and gathering and transportation equipment with a working depth of water of 600m or above, deep sea oil rig with a winch power of 3000kw or above, a top driving force of 850kw or above and a power of drilling pump of 1800kw or above, land oil rig and desert oil rig with a welldrilling depth of 9000m or above, 80-ton+ piston-forced reciprocating compressor used for oil refining installations with an output of 10 million tons per year, digital control deep oil well logger, and oil hole fastener with mud

4. Design and manufacturing of shield machine system integration with a diameter of 6m or above, design and manufacturing of full-face hard rock tunnel boring machine system integration with a diameter of 5m or above, manufacturing of large-caliber rotary drilling rig with a caliber of 1m or above and a depth of 30m or above, design and manufacturing of push bench with a diameter of 1.2m or above, manufacturing of complete sets of large equipment for laying underground utility without digging with a back dragging force of 200 tons or above, manufacturing of underground diaphragm wall construction drilling rig, and manufacturing of automatic vertical well drilling system

5. Design and manufacturing of large sideboom of 100 tons or above and large trencher of 320 horse power or above

6. Design and manufacturing of crawler bulldozer with a soil pressure of 0.03MPa or below and a power of 220 horse power or above and large bulldozer of 520 horse power or above

7. Design and manufacturing of cleaner with a specification of 100 cm.mts/h or above and dredging device for dredger of 1000 tons or above

8. Design and manufacturing of construction equipment for concrete diaphragm wall used for flood prevention dams

9. Manufacturing of underwater civil work construction machinery: bulldozer, loader and excavator used 9m underwater

10. Manufacturing of equipment for maintenance of highways and bridges as well as automatic

checkout equipment

11. Manufacturing of equipment for highway tunnel monitoring, aeration, disaster-prevention and rescuing system

12. Design and manufacturing of equipment for large railway construction, maintenance and operation safety

13. Manufacturing of equipment for building roofs with linoleum tile (bitumen), galvanized steel or other metals

14. Manufacturing of equipment for environment-friendly, energy-saving, water-proof and heat-preservation system with polyurethanes sprayed on-the-spot, equipment with technology for preparing polyurethane sealant, equipment with technology for preparing silicone modified sealant

15. Design and manufacturing of thin-slab caster and high-precision strip mill (thickness of 10 micron)

16. Manufacturing of equipment for directly reduction and smelting reduction of iron

17. Manufacturing of heavy-power direct current electric arc furnace with a power of 50 tons or above

18. Manufacturing of equipment for color coating of board plates

19. Manufacturing of cradling equipment for metal minerals which are multi-elements, fine-particle and are difficult to separate

20. Manufacturing of key equipment for the complete sets of ethylene equipment with an annual output of 800,000 tons or above: cracking gas, ethylene and propylene centrifugal compressors, mixed pelletizers with an annual processing capacity of 100,000 tons or above, centrifuges with a diameter of 800mm or above, high-temperature, high-pressure and corrosion-resistant pumps and valves with a working temperature of 250°C or above and a working pressure of 15Mpa, and low-temperature and ultra-low-temperature pumps of 55°C or below (limited to equity joint ventures and cooperative joint ventures)

21. Manufacturing of complete sets of large equipment coal chemical industry (limited to equity joint ventures and cooperative joint ventures)

22. Design, manufacturing and repairing of metal product moulds (such as extrusion die for pipes, rods and section steel made of copper, aluminum, titanium and zirconium)

23. Design and manufacturing of punching die for car body covers as well as (testing) fixtures for automobiles and motorcycles
24. Design and manufacturing of punching die with a precision of 0.02mm or above, cavity die with a precision of 0.05mm or above, and standardized die parts
25. Design and manufacturing of non-metal product moulds
26. Manufacturing of beer-bottling equipment with a speed of 60,000 bottles/h or above, drink-bottling equipment at an intermediate or high temperature with a speed of 50,000 bottles/h or above, and sterile bottling equipment with a speed of 36,000 bottles/h
27. Development of technique for producing amino acids, enzyme preparations and food additives, and manufacturing of key instruments
28. Manufacturing of complete sets of feedstuff processing equipment at 10 tons/h or above as well as the key parts
29. Manufacturing of equipment for producing lightweight corrugated board and carton whose corrugation height is 0.75mm or below
30. Manufacturing of bisect sheet-fed multi-color lithographic press whose pressing speed is above 16,000 bisect sheets/h (720×1020mm), bisect sheet-fed perfect multi-color lithographic press whose pressing speed is above 13,000 bisect sheets/h (720×1020mm) and full sheet-fed multi-color lithographic press whose pressing speed is above 13,000 bisect sheets/h (1000×1400mm)
31. Manufacturing of single-width single-paper path web-fed lithographic press whose pressing speed is above 75,000 bisect sheets/h (787×880mm), double-width single-paper path web-fed lithographic press whose pressing speed is above 17,000 bisect sheets/h (787×880mm) and commercial web-fed lithographic press whose pressing speed is above 50,000 bisect sheets/h (787×880mm)
32. Manufacturing of multi-color flexo printing press whose speed is 300m/minute and whose width is 1000mm or above
33. Manufacturing of computer mass color pre-coordination systems, mass color remote control equipment, water-ink speed tracking equipment, automatic printing quality detecting and tracking system, non-shaft line technology, high-speed automatic paster/feeder whose speed is 75,000 sheets/h, high-speed folding machine which may automatically adjust through remote control, automatic overprinting system, cooling device, silicon-adding system, and deviation-adjusting device, etc.
34. Manufacturing of equipment with sheet glass deep-processing technology

35. Manufacturing of high-tech involved special industrial sewing machines
36. Manufacturing of complete sets of new-type paper (including pulp) making machines
37. Manufacturing of equipment with new technique for post ornament and processing of leather
38. Development and manufacturing of new agricultural product processing and storing equipment: new equipment for the processing, storage, preserving, grading, package and drying of foodstuff, oil plants, vegetables, fresh and dry fruits, meat products and aquatic products, etc.; agricultural product quality inspection instruments and equipment; inspection instruments and equipment for ensuring agro-product quality be undamaged; rheometer; farinograph; ultramicro crushing apparatus; high-efficiency dehydrating facility; high-efficiency fruit juice condensation equipment with benefit, efficacy, outcome, efficiency and effects; powder food material sterilization facility; solid and semi-solid food aseptically packaging facility; packaging materials for aseptic package; direct vat set for producing dairy products; and disk-type centrifugal separator
39. Manufacturing of agricultural machine: agricultural facilities and equipment (automatic irrigation equipment for greenhouses, equipment for the automatic disposition and fertilization of nutrient solution, high-efficiency vegetable raise seedling equipment and soil nutrient analysis apparatus), tractor with an engine power of 120kw or above and the matching agricultural implements, diesel engine with low gas consumption, low noise and low emission, sprayer which is accessory to big tractor and with the device for retrieving grain residues, high-performance rice transplanter, cotton picking machine and cotton picking platform, and self-propelled corn combine which fits various row spacing (fluid pressure drive or mechanical drive)
40. Manufacturing of forestry machinery and equipment with new technology
41. Manufacturing of equipment for reusing crop straw in field and for the comprehensive utilization of crop straw and rice hull
42. Manufacturing of equipment for the comprehensive utilization of agricultural waste and waste from scale breeding of livestock and poultry
43. Manufacturing of agricultural technological equipment which saves fertilizer, pesticide and water
44. Manufacturing of cleaning equipment for electro-mechanical wells and production of medicines
45. Manufacturing of electronic endoscope
46. Manufacturing of non-mydratic retinal camera

47. Manufacturing of the key components of development device for medical use (high-field-strength superconducting magnetic resonance MRI, CT, X-ray computerized tomography and B ultrasound, etc.)
48. Manufacturing of ultrasonic transducer (3D) for medical use
49. Manufacturing of equipment for boron neutron capture therapy
50. Manufacturing of X-ray special orientation radiotherapy system
51. Manufacturing of haemodialysis machine and hemofiltration machine
52. Manufacturing of equipment for automatic enzyme exempts analysis system (including functions such as sample adding, enzyme labeling, wall washing, incubating and post processing of data, etc.)
53. Development of new drug quality control technology, and manufacturing of new drug quality control equipment
54. Development and manufacturing of new technology and equipment for analyzing and extracting efficacious substance in traditional Chinese drugs
55. Manufacturing of new-type drug packaging materials and containers as well as advanced drug manufacturing equipment
56. Development and manufacturing of new-type textile machinery, key components, and textile testing and laboratory apparatus
57. Manufacturing of intelligent jacquard artificial fur equipment
58. Manufacturing of equipment specially for producing solar cells
59. Development and manufacturing of equipment for pollution prevention and control
60. Manufacturing of equipment for the treatment of municipal wastes and the comprehensive utilization of rural organic wastes
61. Manufacturing of equipment for the recovery processing and reutilization of plastic waste as well as old and useless electric appliance, rubber and battery
62. Manufacturing of equipment with aquatic ecosystem protection technology
63. Development and manufacturing of complete sets of sea water desalination, recirculating and cooling equipment with daily output of 100,000 cubic meters or above

64. Manufacturing of special-type meteorological observation and analysis equipment
65. Development of seismic station/network system and mobile seismologic observation technology system, and manufacturing of corresponding apparatus and equipment
66. Manufacturing of radial tyre building machine with three or more drums
67. Manufacturing of rolling resistance tester and tyre noise laboratory
68. Manufacturing of new-tech heat supply, measuring and temperature control devices
69. Manufacturing of hydrogen energy preparing, warehousing and transportation facilities as well as inspection system
70. Manufacturing of new-type heavy residual oil gasification and atomizing nozzle, high-efficient steam trap valve whose steam loss rate is 0.5% or below, and high temperature ceramic heat exchanger whose temperature is 1000°C or above
71. Manufacturing of devices for the comprehensive utilization of old and useless tyres

(XIX) Transportation and Communication Facility Manufacturing Industry

1. Manufacturing of complete automobiles (the proportion of foreign capital shall not exceed 50%), and construction of automobile research and development institutions
2. Manufacture of automobile engines, and construction of engine regeneration and r&d institutions: gasoline engines whose volume power is 50kw or above, diesel engines whose volume power is 40kw or above and whose displacement is 3L or below, diesel engine whose volume power is 30kw or above and whose displacement is 3L or above and engines with new energy resources such as fuel cells and mixed fuels
3. Manufacturing of key automobile components and parts and research and development of key technologies: disk brake assembly, drive axle assembly, automatic gear box, diesel engine fuel pump, engine air-intake supercharger, viscous junction box (for four-wheel drive), fluid pressure tappets, electronic integrating instrument, crankshafts and connecting links for vehicles (diesel engine of 8L or above), anti-lock brake system (ABS, ECU, valve body and sensor), electronic stability program (ESP), brake-by-wire system, electronic brake force distribution system (EBD), tractive force control system, gas generator for automobile safety air-bag, diesel electronic spraying system, common rail fuel spraying technology (the maximum spraying pressure >1600p), variable geometry turbocharging technology (VGT), variable nozzle turbocharging technology (VNT), discharge control device for engines reaching stage-IV pollutant discharge standards of

China, intelligent torsion management system, coupler assembly, steer-by-wire system, diesel engine grain catcher, intelligent cylinder and special-type rubber accessories for automobile

4. Manufacturing and research & development of automobile electronic installations: electronic engine and chassis control system and the key components, vehicle electronic technology (automobile information system and navigation system), electronic bus network technology (limited to equity joint ventures), electronic control system input (sensor and sampling system) and output (actuator) blocks, electronic controller for electric power steering system (limited to equity joint ventures), embedded electronic integrating system (limited to equity joint ventures and cooperative joint ventures), electrically controlled air spring, electronically controlled suspension system, electronic valve system installations, electronic gun, battery (nickel-hydrogen and lithium-ion) and the control system (limited to equity joint ventures), integrated electric machine and control system (limited to equity joint ventures), wheel hub electric machine, multi-functional controller (limited to equity joint ventures), fuel cell stack and the components, hydrogen storage system for automobiles, and testing system for testing and maintaining automobiles and motorcycles

5. Manufacturing of motorcycle key parts: parts with electronically controlled fuel injection technology (limited to equity joint ventures and cooperative joint ventures), and emission control device for engines which have reached stage-III pollutant discharge standards of China for motorcycles

6. Manufacturing of track transport and communication facilities (limited to equity joint ventures and cooperative joint ventures): research & development, design and manufacturing of vehicles and key parts (traction/drive system, control system and brake system) for high-speed railway, special lines for railway transport of passengers, intercity railway, trunk railway and urban track transport and communication facilities; research & development, design and manufacturing of facilities and equipment for high-speed railway, special lines for railway transport of passengers, intercity railway and urban track transport and communication services; design and research & development of information systems concerned in informatization construction; research & development, design and manufacturing of track and bridge facilities for high-speed railway, special lines for railway transport of passengers and intercity railway; research & development, design and manufacturing of track transport and communication signal system; manufacturing of electrified railway equipment and apparatus; research & development of railway noise and vibration control techniques; manufacturing of the blowdown of railroad cars; and manufacturing of railway transport safety monitoring equipment

7. Design, manufacturing and maintenance of civil aircrafts: aircrafts of trunk lines and branch lines (the Chinese party shall have a controlling interest), and utility aircrafts (limited to equity joint ventures and cooperative joint ventures)

8. Manufacturing and maintenance of civil aircraft components and parts

9. Design and manufacturing of civil helicopters: 3 ton or above (the Chinese party shall have a

controlling interest), and below 3 ton (limited to equity joint ventures and cooperative joint ventures)

10. Manufacturing of civil helicopter components and parts

11. Manufacturing of ground-effect and water-effect aircrafts (the Chinese party shall have a controlling interest)

12. Design and manufacturing of unmanned aircrafts and floating platform (the Chinese party shall have a controlling interest)

13. Design, manufacturing and maintenance of aircraft engine and components as well as aerial power system (limited to equity joint ventures and cooperative joint ventures)

14. Design and manufacturing of civil aircraft equipment (limited to equity joint ventures and cooperative joint ventures)

15. Design and manufacturing of civil carrier rocket (the Chinese party shall have a controlling interest)

16. Manufacturing of ground equipment for aerial use: civil aerodrome facilities, civil aerodrome operation guarantee facilities, ground equipment for experimental flight, flight simulation and training equipment, aerial testing and measuring instrument, land trial equipment, aircraft equipment integral test system, aerial-purpose equipment, equipment specially for the trial manufacturing of aerial materials, civil aircraft ground reception and application apparatus, carrier rocket ground checkout equipment, carrier rocket mechanics and environment laboratory equipment

17. Manufacturing of light, machinery and electronic products and temperature control products for spacecrafts, planet product testing device, and spacecraft structure and setup products

18. Manufacturing of light gas turbine

19. Design of new and high tech vessels and oceanengineering equipment (limited to equity joint ventures and cooperative joint ventures)

20. Repair, design and manufacturing of vessels (including sections) and oceanengineering equipment (the Chinese party shall have a controlling interest)

21. Design of low, medium and high speed diesel engines of vessels (limited to equity joint ventures and cooperative joint ventures)

22. Design and manufacturing of components and parts of diesel engines of vessels (limited to equity joint ventures and cooperative joint ventures)

23. Design and manufacturing of low and medium speed diesel engines as well as crankshafts of vessels (the Chinese party shall have a controlling interest)
24. Design and manufacturing of hatch machinery and deck machinery (the Chinese party shall be in a relatively dominant position)
25. Design and manufacturing of vessel communication and navigation equipment: vessel communication system equipment, vessel electronic guidance equipment, radar for vessel use, electric gyrocompass automatic pilot and internal broadcasting system, etc.
26. Design and manufacturing of ocean fishing vessels and yachts (limited to equity joint ventures and cooperative joint ventures)

(XX) Electric Machine and Equipment Manufacturing Industry

1. Manufacturing of key equipment used for 600,000 kw super-critical and 1 million kw ultra-super-critical thermal power plants (limited to equity joint ventures and cooperative joint ventures): boiler feed pump, circulating pump, and main steam loop high-temperature and high-pressure valves with the operating temperature of 400°C or above and the working pressure of 20Mpa or above
2. Manufacturing of key equipment for nuclear power plants of millions kw (limited to equity joint ventures and cooperative joint ventures): pump and valve of nuclear level I and II
3. Manufacturing of devulcanization equipment, denitration equipment and bag dust collector used in thermal power plants
4. Design and manufacturing of encapsulations for nuclear power equipment and thermal power equipment
5. Manufacturing of large casting and forging for nuclear power equipment
6. Manufacturing of electric transmission and transformation equipment (limited to equity joint ventures and cooperative joint ventures): amorphous alloy transformer, large sleeve for high-voltage electric appliance of 500kv or above, operating gear and independent arcing contact for high-voltage switch, dry-type reactor for direct current transmission, high-power crystal valve pipe for 6-inch direct current converter valve, contact materials for electric appliance which satisfy EU RoHS, and Pb/Cd-free solder
7. Manufacturing of complete sets of equipment or key equipment for generating electricity with

new energy resources (limited to equity joint ventures and cooperative joint ventures): light solar, geohat, tide, wave, waste, biogas, wind force of 1.5 megawatts or above

8. Manufacturing of Stirling generating set

9. Development and manufacturing of linear motor and the driving system

10. Manufacturing of solar-powered air conditioning, heating system and solar drying device

11. Manufacturing of biomass drying pyrolysis system and biomass gasification device

12. Manufacturing of draw gear for alternating current frequency and pressure modulation

13. Manufacturing of intelligent molded case circuit breaker (voltage: 380V, electric current: 1000A), intelligent cabinet or drawer circuit breaker used for large-scale engineering works, and complete sets of intelligent electricity control and distribution equipment with bus wire

(XXI) Communication Equipment, Computer and other Electronic Equipment Manufacturing Industries

1. Manufacturing of digital video camera, digital audio player and digital movie-making, editing and playing equipment

2. Manufacturing of TFT-LCD, PDP, OLED, FED (including SED, etc.) panel display screen and materials for making display screen

3. Manufacturing of such key parts as optical engine, light source, projection screen, high-resolution projection tube and LCOS module used for large-screen multicolor projection displays

4. Manufacturing of digital audio and video coding and decoding equipment, digital equipment for broadcast and television studio, digital equipment for cable TV system, digital transmission equipment for audio broadcasting, digital TV up-and-down converter, equipment for digital TV ground broadcasting single frequency network (SFN), equipment for satellite digital TV uplink station, and headend equipment for satellite master antenna TV (SMATV)

5. Manufacturing of high-performance digital single lens reflex with 6 million pixel or more

6. Design of integrated circuit, manufacturing of large-scale digital integrated circuit with a line width of 0.18 micron or below, manufacturing of simulation or analog integrated circuit with a line width of 0.8 micron or below, as well as BGA, PGA, CSP and MCM encapsulation and testing

7. Manufacturing of large and medium-sized electronic computers, gigantic computers, portable microcomputers and high-class servers which execute one thousand billion or more instructions per second, large-scale analog simulation system, and large-scale industrial computers and controllers
8. Manufacturing of computer digital signal processing system and boards
9. Manufacturing of graphic and image recognition and processing system
10. Development and manufacture of high-capacity optical and disk drives as well as their parts
11. Manufacturing of high-speed memory system with a capacity of 100TB or above as well as intelligent memory device
12. Manufacturing of large-breadth (900mm or above) and high-resolution color printing device, head of high-resolution color printers with the precision of 2400dpi or above, and large-breadth (900mm or above) and high-resolution color copying device
13. Manufacturing of computer-aided design (three-dimensional CAD) system, computer-aided testing (CAT) system, computer-aided manufacturing (CAM) system and computer-aided engineering (CAE) system and other computer application systems
14. Development and manufacturing of software products
15. Development and manufacturing of materials exclusively for electronic use (excluding the development and manufacturing of optical fibre perform)
16. Manufacturing of equipment, testing apparatus, and industrial moulds exclusively for electronic use
17. Manufacturing of new-type electronic parts and components: chip components, sensitive components and sensors, frequency control and selection components, hybrid integrated circuits, power electronic device, photoelectric device, new-type electromechanical components, high-density interconnecting lamination boards, multilayer flexibility boards, rigid-flex printing circuit board and package substrate
18. Manufacturing of high-tech green cell: Ni-MH cell, nickel-zinc cell, silver-zinc cell, lithium-ionization cell, high-volume, complete-sealed and maintenance-free lead-acid accumulator, solar cell, fuel cell and column zinc-air cell, etc.
19. Manufacturing of high-brightness light-emitting diode (LED) with the luminous efficiency of 50lm/W or above, bluelight extension chip of LED with the luminous efficiency of 50lm/W, and white luminotron with the luminous efficiency of 50lm/W or above and the power of 200mW or above

20. Development and manufacturing of RFID chips
21. Development and production of key parts of high-density digital disk drive
22. Duplication of CD-ROM and production of CD-R
23. Design and Manufacturing of civil satellites (the Chinese party shall have a controlling interest)
24. Manufacturing of civil satellite payload (the Chinese party shall have a controlling interest)
25. Manufacturing of parts and components for civil satellites
26. Manufacturing of equipment for satellite communication system
27. Manufacturing of satellite navigation receiving equipment and the key parts
28. Manufacturing of optical communication measuring instrument, and optical transceiver with the speed of 10Gb/s or above
29. Manufacturing of ultra-wide band (UWB) communication equipment
30. Manufacturing of wireless local area network (wide area network) equipment
31. Manufacturing of optical cross connect (OXC) equipment, automatic switched optical network (ASON) equipment, transmission equipment for optical fiber communication at 40G/sSDH or above, and coarse wavelength division multiplexing (CWDM) equipment
32. Manufacturing of asynchronous transfer mode (ATM) and IP data communication system
33. Development and manufacturing of 3G and follow-up mobile communication handsets, base stations, core network devices and network testing apparatus
34. Development and manufacturing of high-end routers and network exchangers of 1 kilomega gigabit or above
35. Manufacturing of equipment for air traffic control system (limited to equity joint ventures and cooperative joint ventures)

(XXII) Manufacturing Industries of Instruments and Meters, and Machinery for Cultural and Office Use

1. Manufacturing of field bus control system and the key components

2. Development and manufacturing of large-scale precision instruments: including electron microscope, laser scanning microscope, scanning tunnel microscope, laser with power of 2kw, electronic probe, photoelectric direct reading spectrometer, Raman spectrometer, mass spectrograph, liquid phase chromatograph, industrial chromatograph, chromatograph mass spectrometer, NMR spectrometer, energy spectrometer, X-ray fluorescence spectrometer, diffractometer, industrial CT, large dynamic balancing testing machine, automatic detecting system of on-line mechanical quantity, ultra high speed centrifuge at the rotating rate of 100000r/min, large metallurgical microscope, three-coordinate measuring machine, laser comparator, electrical prospecting instrument, airborne electrical prospecting and γ energy spectrometer at 500m or above, borehole gravity and three-component magnetometer, high-density microgal gravity and aerial gravity gradient measuring apparatus, on-field express analysis device for geochemical elements, and portable geological radar

3. Manufacturing of high-precision digital voltmeter and ammeter (with a span of $7\frac{1}{2}$; or above)

4. Manufacturing of reactive power autocompensation installation

5. Manufacturing of two-phase flowmeter and solid flowmeter

6. Manufacturing of automatic coating machine for electron gun

7. Manufacturing of industrial X-ray detector

8. Manufacturing of safe production and environmental protection testing instruments

9. Manufacturing of VXI bus automatic testing system (satisfying IEEE1155 international standards)

10. Development and manufacturing of coal mine underground monitoring and hazard forecasting system as well as coal safety testing management system

11. Manufacturing of equipment for engineering survey and geophysical observation: digital triangulation system, numerically controlled three-dimension relief model molding system (area >

1000×1000mm, horizontal error < 1mm, vertical error < 0.5mm, ultra-wide band seismometer ϕ < 5cm, frequency band of 0.01-50Hz, and equivalent moving speed noise < 10-9m/s), seismic data integrated processing system, integrated underground seis and precursor observation system, precise controlled source system, engineering acceleration measuring system, high-precision GPS receiver (precision of 1mm + 1ppm), INSAR image receiving and processing system, absolute gravimeter (precision < 1 microgal), satellite gravimeter, Doppler radar with coherence technology or dual-polarization technology, hazemeter, meteorological sensor (temperature, pressure, humidity, wind, precipitation, cloud, visibility, radiation, frozen soil and snow depth), protection

system against lightning strike, multi-level dust sampler, 3-D ultrasonic anemoscope, high-precision intelligent electronic tachometer, three-dimension laser scanner, high-performance diamond drill for boring test, laser ranger without cooperation target, wind profiler (with RASS), GPS electronic sonde system, CO₂/H₂O flux observation system, boundary-layer Doppler lidar, particle spectrometer for particulate substance (3nm-20μm), high-performance data collector and underwater glider

12. Manufacturing of new-tech inspection or testing instruments for environmental protection: air quality inspection instrument, water quality inspection instrument, flue gas online inspection instruments, emergency apparatus, new-type spectroscopy analysis system, self-align apparatus, composite-type apparatus, low-drift apparatus, network telemetering apparatus and remote controlling apparatus and system, etc.

13. Manufacturing of air pollution prevention and control facilities: high temperature resistant and erosion resistant filtering materials, complete sets of wet desulfurizing equipment in coal-fired power plants, low-NO_x combustion apparatus, catalyst and complete sets of equipment for fuel gas denitrogenation, industrial organic exhaust purification equipment, diesel truck exhaust purification equipment

14. Manufacturing of water pollution prevention and control facilities: horizontal spiral centrifugal dehydrator, film and film materials, ozone generator of 10kg/h or above, chlorine dioxide generator of 10kg/h or above, ultraviolet disinfecting device and small-scale sanitary sewage treatment equipment used for rural areas

15. Manufacturing of solid waste treatment and disposal equipment: anti-seepage geomembrane in garbage landfill, equipment for treating hazardous waste, equipment for power generation with biogas in garbage landfill, and equipment for comprehensive utilization of wastes from scale breeding of poultry and livestock

16. Manufacturing of environment monitoring apparatus: automatic SO₂ sampler, automatic NO_x and NO₂ sampler and measuring apparatus, automatic O₃ monitoring apparatus, automatic CO monitoring apparatus, automatic fuel gas and dust sampler and measuring apparatus, automatic fuel gas sampler and measuring apparatus, portable toxic and harmful gas measuring apparatus, automatic analysis apparatus of organic pollutants in air, automatic COD online monitoring apparatus, automatic BOD online monitoring apparatus, turbidity online monitoring apparatus, DO online monitoring apparatus, TOC online monitoring apparatus, ammonia nitrogen online monitoring apparatus, radiation dosage detector and ray analysis tester

17. Manufacturing of apparatus and equipment for collecting, processing and transmitting hydrological data as well as giving early warnings on flood control

18. Manufacturing of oceanic exploration monitoring instrument and equipment: middle and deep sea underwater (video) camera, multi-wave packet detector, middle and superficial stratum profiler, temperature-salinity-depth detector used in a moving vessel, fluxgate compass, hydraulic wireline

winch, underwater air-tight electronic connector, energy recovery device (efficiency >90%) for reverse osmosis sea water desalination, high-pressure pumps (efficiency >90%) for reverse osmosis sea water desalination, film (ratio of desalination > 99.7%) for reverse osmosis sea water desalination, low-temperature and multi-effect sea water desalination device by distillation with a daily output of 20,000 tons, marine ecosystem monitoring floaters, profile detecting floater, disposable conductivity, temperature and depth sonde (XCTD), on-site water quality measuring instrument, chemical sensor for intelligent ocean water quality monitoring (working nonstop for three to six months), geomagnetic electrokinetograph, acoustic Doppler current profiler, (self-contained, direct-reading and ship use), conductivity, temperature and depth profiler, acoustic responding releaser and oceanic deep-sea tide measuring system (laid on sea bottom)

(XXIII) Other Manufacturing Industries

1. Development and utilization of products using clean coal technique, and manufacturing of related equipment (coal gasification, liquefaction, coal water mixture and industrial coal)
2. Coal washing and selection, and comprehensive utilization of fly ash (including desulfurized gypsum) and coal slack
3. Manufacturing of pure biodegradation materials

IV. Production & Supply of Electricity, Gas and Water

1. Construction and operation power stations using integrated gasification combined cycle (IGCC), 300,000-kilowatt or above circulating fluidized bed, 100,000-kilowatt or above pressurized fluidized bed combustor and other clean combustion technologies
2. Construction and operation of back-pressure thermoelectricity cogeneration power stations
3. Construction and operation of hydropower stations with the main purpose of power generating
4. Construction and operation of nuclear power stations (the Chinese party shall have a controlling interest)
5. Construction and operation of new energy power stations (including solar energy, wind energy, magnetic energy, geothermal energy, tidal energy, wave energy and biological mass energy, etc.)
6. Industrialization of sea water utilization (direct utilization and desalination of sea water) and treatment and recycle of industrial waste water
7. Construction and operation of urban water supply plants

V. Transportation, Warehouse Management and Postal Services

1. Construction and operation of main lines of railways (the Chinese party shall have a controlling interest)
2. Construction and operation of branch line railways, local railways, and related bridges, tunnels, ferries and station facilities (limited to equity joint ventures and cooperative joint ventures)
3. Comprehensive maintenance of infrastructures of high-speed railways, railway lines specially for passenger traffic, and intercity railways (the Chinese party shall have a controlling interest)
4. Construction and operation of highways, independent bridges and tunnels
5. Highway freight companies
6. Construction and operation of public dock facilities of ports
7. Construction and management of civil airports (the Chinese party shall have a controlling interest)
8. Air freight companies (the Chinese party shall have a controlling interest)
9. General aviation companies for agriculture, forestry and fishery (limited to equity joint ventures and cooperative joint ventures)
10. Fixed-term or non-fixed term international marine transport (the Chinese party shall have a controlling interest)
11. International container multi-modal transportation
12. Construction and management of oil and gas delivery pipes, as well as oil depots
13. Construction and management of coal pipelines transportation facilities
14. Construction and management of storage facilities related to transportation business

VI. Wholesale and Retail Business

1. Delivery of general commodities
2. Modern logistics

VII. Leasing and Commercial Services

1. Accounting and auditing (limited to equity joint ventures and cooperative joint ventures)
2. International economy, s&t and environmental protection information consultancy services
3. Contract information technology and operation flow services such as system application management and maintenance, information technology support management, bank back-office services, financial settlement, human resource service, software development, calling center and data processing

VIII. Scientific Research, Technical Services and Geological Exploration

1. Biological engineering and biomedical engineering technology, and biomass energy development technology
2. Isotope, radiation and laser technology
3. Ocean and ocean energy development technology, comprehensive utilization technology of marine chemical resources, development and deep-processing technology of the related products, marine medicine and biochemical product development technology
4. Ocean monitoring technology (over tide wave, weather and environment), submarine detection and oceanic resource exploration assessment technology
5. Technology for comprehensively utilizing the thick sea water leftover from sea water desalination to produce salt and extract and deep-process potassium, bromine, magnesium and lithium, and technology for using other high added-value sea water chemical resources
6. Energy-saving development technology
7. Development and application of technology for recycling and comprehensive utilization of resources and for recycling the effluents discharged from enterprise production
8. Technology for treating and monitoring environmental pollution
9. New technology for saving energy and reducing depreciation in producing chemical fibre and for the disposal of waste gas, water and solids
10. Technology for desertification prevention and desert treatment
11. Integrated management technology for grassland-livestock balance

12. Applied technology of civil satellites

13. Research and development centers

14. High and new tech and new product development centers, and enterprise incubation centers

IX. Water Conservancy, Environment and Public Utility Management

1. Construction and operation of comprehensive hydro projects (the Chinese party shall have a controlling interest)

2. Construction and operation of urban closed roads

3. Construction and operation of urban subways and light rails (the Chinese party shall have a controlling interest)

4. Construction and operation of sewage and refuse treatment plants, hazardous waste treatment and disposal plants (incineration plants, landfills) and environment pollution treatment facilities

X. Education

1. Higher education institution (limited to equity joint ventures and cooperative joint ventures)

XI. Health, Social Security and Community Welfare

1. Agencies providing services for the old, the disabled and children

XII. Culture, Sports and Entertainment

1. Operation of performance places (the Chinese party shall have a controlling interest)

2. Operation of sports grounds, body-building, contest performance, sports training and intermediate services

Catalog of Restricted Foreign Investment Industries

I. Agriculture, Forestry, Animal Husbandry and Fishery Industry

1. Seed selection of new varieties of crops, and development and production of seeds (the Chinese party shall have a controlling interest)
2. Processing and export of the logs of precious varieties of trees (limited to equity joint ventures and cooperative joint ventures)
3. Processing of cotton (seed cotton)

II. Mining and Quarrying Industry

1. Exploration and mining of special and rare kinds of coal (the Chinese party shall have a controlling interest)
2. Exploration and mining of barites (limited to equity joint ventures and cooperative joint ventures)
3. Exploration and mining of precious metals (gold, silver, platinum groups)
4. Exploration and mining of diamonds and other precious nonmetals
5. Mining and cradling of phosphorites
6. Mining of szabityite and ludwigite
7. Mining of celestite
8. Mining of oceanic manganese nodule and sea sand (the Chinese party shall have a controlling interest)

III. Manufacturing Industry

(I) Agricultural and Non-staple Food Processing

1. Processing of soybean oil, rapeseed oil and other edible oils (the Chinese party shall have a controlling interest), and deep-processing of corn
2. Production of biological liquid fuels (fuel ethanol and biological diesel oil) (the Chinese party shall have a controlling interest)

(II) Beverage Manufacturing

1. Production of yellow wine and famous brands of spirits (the Chinese party shall have a controlling interest)

2. Production of carbonated beverages

(III) Tobacco Processing Industry

1. Processing and production of threshed and redried flue-cured tobacco leaves

(IV) Printing Industry and Duplication of Recording Vehicles

1. Printing of publications (the Chinese party shall have a controlling interest, with the exception of printing of package and decoration)

(V) Petroleum Processing and Coking Industry

1. Construction and operation of oil refineries with an annual output of 8 million tons or below

(VI) Chemical Raw Materials and Chemical Products Manufacturing Industry

1. Production of sodium hydroxide and potash (potassium hydroxide)

2. Production of sensitive materials

3. Production of benzidine

4. Production of precursor chemicals (ephedrine, 3,4-Methylenedioxyphenyl-2-propanone, phenyl acetic acid, 1-phenyl-2-propanone, piperonal, safrole, Isosafrole, and acetic oxide)

5. Production of hydro-chloro-fluoro-carbons (HCFC), tetrafluoroethylene, aluminum fluoride and hydrofluoric acid

6. Production of cis-1, 4-polybutadiene rubber, emulsion polymerized styrene butadiene rubber and thermoplastic styrene butadiene rubber

7. Production of methane chlorides (excluding methyl chloride), and polyvinyl chloride (PVC) by calcium carbide process

8. Production of basic titanium dioxide by sulfuric acid process and potassium permanganate by open-hearth furnace process

9. Processing of ludwigite

10. Production of barium salt and strontium salt

(VII) Medical and Pharmaceutical Products Manufacturing Industry

1. Production of chloramphenicol, penicillin G, jienmycin, gentamicin, dihydrostreptomycin, amikacin, tetracycline hydrochloride, oxytetracycline, mydecamycin, kitasamycin, ciprofloxacin, flupercid, and ofloxacin

2. Production of Analgin, paracetamol, Vitamin B1, Vitamin B2, Vitamin C, Vitamin E and multiplex vitamin agents and oral calcium agents

3. Production of immunity vaccines included in the state's plan (not including BCG vaccine and poliomyelitis vaccine), bacterins, antitoxins and anatoxin (DPT vaccine, measles vaccine, Type-B encephalitis vaccine, and epidemic cerebrospinal meningitis vaccine, etc.)

4. Production of bulk drugs of narcotics and the psychotropic drugs of category I (the Chinese party shall have a controlling interest)

5. Production of blood products

6. Production of non-self-destruction disposable injectors, transfusion sets, blood transfusion sets and blood bags

(VIII) Chemical Fibre Manufacturing Industry

1. Production of chemical fibre drawnwork silk noil yarn by conventional sectioning method

2. Production of viscose staple fibre

(ix) Rubber Product Manufacturing Industry

1. Old tire reconditions (radial tire excluded) and production of low-performance industrial rubber spare parts

(X) Nonferrous Metals Smelting and Pressing Industry

1. Smelting of tungsten, molybdenum, tin (excluding tin compounds), antimony (including

antimony oxides and antimony sulphides) and other rare metals

2. Smelting of electrolytic aluminium, copper, lead, zinc and other non-ferrous metals

3. melting and separation of rare-earths (limited to equity joint ventures and cooperative joint ventures)

(XI) Metal Products Manufacturing Industry

1. Production of containers

(XII) General-purpose Equipment Manufacturing Industry

1. Manufacturing of various kinds of ordinary shaft bearings as well as the components (steel balls, cages) and roughcasts

2. Manufacturing of 300-ton or below wheeled or crawler cranes (limited to equity joint ventures and cooperative joint ventures)

(XIII) Special-purpose Equipment Manufacturing Industry

1. Manufacturing of low or medium class of type-B ultrasonic displays

2. Manufacturing of equipment for producing ordinary dacron filament and short fiber

3. Manufacturing of bulldozers of 320 horsepower or below, hydraulic excavators of 30 tons or below, wheeled loaders of 6 tons or below, graders of 220 horsepower or below, road rollers, fork-lift trucks, off-highway dumper trucks of 135 tons or below, road surface milling machinery and equipment, garden machine and equipment, and commodity concrete machine (pilot pump, agitating lorry, mixing station and pump truck)

(XIV) Transport and Communication Facility Manufacturing Industry

1. Repair, design and manufacturing of ordinary vessels (sections) (the Chinese party shall have a controlling interest)

(XV) Manufacturing Industry of Communication Equipment, Computers and Other Electronic Equipment

1. Production of satellite telecasting ground receivers and the key components

2. Manufacturing of fiscal cash registers

IV. Production & Supply of Electricity, Gas and Water

1. Construction and operation of, in those small power networks in Tibet, Xinjiang and Hainan, coal condensing thermal power plants whose single-machine capacity is 300,000kw or below, and coal pumping and condensing thermoelectricity cogeneration power plants whose single-machine capacity is 100,000kw or below

2. Construction and operation of power network (the Chinese party shall have a controlling interest)

V. Transportation, Warehouse Management, and Postal Service

1. Railway goods transport companies

2. Railway passenger transport companies (the Chinese party shall have a controlling interest)

3. Highway passenger transport companies

4. Entry and exit automobile transport companies

5. Water transport companies (the Chinese party shall have a controlling interest)

6. General aviation companies for photography, prospecting, industry, etc. (the Chinese party shall have a controlling interest)

7. Telecommunication companies: value-added telecommunication services (the proportion of foreign capital shall not exceed 50%), mobile voice and data services in basic telecommunication services (the proportion of foreign capital shall not exceed 49%), and domestic and international business in basic telecommunication services (the proportion of foreign capital shall not exceed 35%, at most be 49% before December 11th, 2007)

VI. Wholesale and Retail Business

1. Various kinds of commercial companies engaging in direct sales, mail order, online sales, franchise business, commission business and business management, etc.

2. Wholesale, retail and logistic delivery of food, cotton, vegetable oil, sugar, medicine, tobacco,

automobile, crude oil, pesticide, agricultural plastic film and fertilizer (the Chinese party shall have a controlling interest as for a chain store which has 30 or more branch stores and distributes different varieties and brands of products from two or more suppliers)

3. Distribution of audio and video products (movies excluded) (limited to equity joint ventures, and the Chinese party shall have a controlling interest)

4. Commodity auction

5. Vessel agency companies (the Chinese party shall have a controlling interest), ocean shipping tally (limited to equity joint ventures and cooperative joint ventures)

6. Wholesale of product oil and construction and operation of gas stations (the Chinese party shall have a controlling interest as for a chain gas station which has 30 or more branch stores funded by a same foreign investor and distributes different varieties and brands of product oil from two or more suppliers)

VII. Finance Industry

1. Banks, finance lease companies, finance companies, trust investment companies, and currency brokerage companies

2. Insurance companies (as for life insurance companies, the proportion of foreign capital shall not exceed 50%)

3. Securities companies (which may only underwrite A-shares, and underwrite or trade B-shares, H-shares and government bonds and corporate bonds, and the proportion of foreign capital shall be 1/3 or below), and securities investment fund management companies (the proportion of foreign capital shall not exceed 49%)

4. Insurance brokerage companies

5. Futures companies (the Chinese party shall have a controlling interest)

VIII. Real Estate Industry

1. Tract development of land (limited to equity joint ventures and cooperative joint ventures)

2. Construction and operation of high-grade hotels, villas, high-class office buildings, and international exhibition centers

3. Real estate secondary market transactions and real estate intermediate or brokerage companies

IX. Leasing and Commercial Services

1. Legal consultancy
2. Market survey (limited to equity joint ventures and contractual joint ventures)
3. Credit investigation and grading service companies

X. Scientific Research, Technical Services and Geological Prospecting

1. Surveying and mapping companies (the Chinese party shall have a controlling interest)
2. Import-export commodity inspection, appraisal and certification companies
3. Photography services (including aerial photography and other trick photography services, but not including mapping-targeted aerial photography, limited to equity joint ventures)

XI. Water Conservancy, Environment and Public Utility Management

1. Construction and operation of the pipeline network of big cities for fuel gas, heating power and water supply and sewage (the Chinese party shall have a controlling interest)

XII. Education

1. Ordinary senior high schools (limited to equity joint ventures and contractual joint ventures)

XIII. Health, Social Security and Community Welfare

1. Medical establishments (limited to equity joint ventures and contractual joint ventures)

XIV. Culture, Sports and Entertainment

1. Broadcast and TV programming projects, and film-making projects (limited to equity joint ventures)
2. Construction and operation of movie theaters (the Chinese party shall have a controlling interest)

3. Construction and operation of large-scale theme parks
4. Brokering agencies for stage performances (the Chinese party shall have a controlling interest)
5. Operation of recreation places (limited to equity joint ventures and contractual joint ventures)

XV. Other industries restricted by the state or International Treaties that China has concluded or acceded to

Catalog of Prohibited Foreign Investment Industries

I. Agriculture, Forestry, Animal Husbandry and Fishery Industry

1. Breeding and planting of China's rare and special quality varieties (including fine genes in crop production, husbandry and aquatic products industry)
2. Production and development of transgenic plant seeds, breeding livestock and poultry and aquatic fingerlings
3. Fishing in the sea area and inland waters under China's jurisdiction

II. Mining and Quarrying Industry

1. Exploration and mining of tungsten, molybdenum, tin, antimony and fluorite
2. Exploration, mining and selection of rare earths
3. Exploration, mining and selection of radioactive mineral products

III. Manufacturing Industry

(I) Beverage Manufacturing Industry

1. Processing of green tea and special tea with Chinese traditional techniques (famous tea and dark tea, etc.)

(II) Medical and Pharmaceutical Products Manufacturing Industry

1. Processing of traditional Chinese medicines listed as state protection resources in the Regulation on the Conservation of Wild Medicinal Herb Resources and the Catalogue of Rare and Endangered Plants in China

2. Application of preparing technique of traditional Chinese medicines prepared in ready-to-use forms such as steaming, stir-frying, moxibustion and calcining, etc., and production of Chinese patent medicines with secret prescriptions

(III) Nonferrous Metals Smelting and Pressing Industry

1. Smelting and Processing of radioactive minerals

(IV) Special-purpose Equipment Manufacturing Industry

1. Manufacturing of Weapons and Ammunition

(V) Electrical Machinery and Equipment Manufacturing Industry

1. Manufacturing of open-style (acid mist is directly drained) lead-acid battery, mercury silver oxide button cell, pasted zinc-manganese battery and cadmium-nickel cell

(VI) Industrial Goods and Other Manufacturing Industry

1. Ivory carving

2. Tiger-bone processing

3. Production of bodiless lacquerware

4. Production of enamel products

5. Production of Xuan paper, and Chinese ink ignot

6. Production of carcinogenic, teratogenic and mutagenesis products and persistent organic pollutants

IV. Construction and operation of, beyond those small power networks in Tibet, Xinjiang and Hainan, coal condensing thermal power plants whose single-machine capacity is 300,000kw or below, and coal pumping and condensing thermoelectricity cogeneration power plants whose

single-machine capacity is 100,000kw or below

V. Transportation, Warehouse Management, and Postal Services

1. Air traffic control companies
2. Post companies

VI. Leasing and Commercial Services

1. Social survey

VII. Scientific Research, Technical Services and Geological Exploration

1. Stem cell and gene diagnosis and treatment technology development and application
2. Geodetic survey, marine charting, mapping-purpose aerial photography, administrative boundary surveying and mapping, compilation of topographic map as concerned in map compilation, and compilation of electronic map used for navigation as concerned in general map compilation

VIII. Water Conservancy, Environment and Public Utility Management

1. Construction and operation of nature reserves and wetlands of international importance
2. Development of wild animals and plants which are sourced from China and are protected by China

IX. Education

1. Compulsory education institutions, and education institutions in military affairs, police, politics, party and other special fields

X. Culture, Sports and Entertainment

1. News agencies
2. Publication, distribution and import of books, newspapers and magazines

3. Publication, manufacturing and import of audio and video products and electronic publications
4. Broadcasting stations (networks), television stations (networks), broadcasting and television channels (frequencies), broadcasting and television transmitting and covering networks (launching stations, relay stations, broadcasting and television satellites, satellite uplink stations, satellite receiving and transmitting stations, micro-wave stations, monitoring platforms, and cable broadcasting and television transmitting and covering networks)
5. Companies making and operating broadcast and TV programs
6. Film making companies, issuing companies and cinema line companies
7. News websites, internet audio and video programs, business grounds for surfing the internet, and operation of internet culture
8. Video screening companies
9. Construction and operation of golf courses
10. Gambling industry (including gambling hippodromes)
11. Porn industry
- XI. Other Industries
 1. Projects that endanger the safety and performance of military installations
- XII. Other Industries Prohibited by the State or by International Treaties China Has Concluded or Acceded to

国家发展和改革委员会、商务部令

(第57号)

《外商投资产业指导目录(2007年修订)》已经国务院批准,现予以发布,自2007年12月1日起施行。2004年11月30日国家发展和改革委员会、商务部发布的《外商投资产业指导目录(2004年修订)》同时停止执行。

国家发展和改革委员会主任:马凯

商 务 部 部 长:薄熙来

二〇〇七年十月三十一日

外商投资产业指导目录

(2007年修订)

鼓励外商投资产业目录

一、农、林、牧、渔业

1. 中低产农田改造

2. 木本食用油料、调料和工业原料的种植及开发、生产
3. 蔬菜（含食用菌、西甜瓜）、干鲜果品、茶叶无公害栽培技术及产品系列化开发、生产
4. 糖料、果树、牧草等农作物新技术开发、生产
5. 花卉生产与苗圃基地的建设、经营
6. 橡胶、剑麻、咖啡种植
7. 中药材种植、养殖（限于合资、合作）
8. 农作物秸秆还田及综合利用、有机肥料资源的开发生产
9. 林木（竹）营造及良种培育、多倍体树木新品种和转基因树木新品种培育
10. 水产苗种繁育（不含我国特有的珍贵优良品种）
11. 防治荒漠化及水土流失的植树种草等生态环境保护工程建设、经营
12. 水产品养殖、深水网箱养殖、工厂化水产养殖、生态型海洋种养殖

二、采矿业

1. 煤层气勘探、开发和矿井瓦斯利用（限于合资、合作）
2. 石油、天然气的风险勘探、开发（限于合资、合作）

3. 低渗透油气藏(田)的开发(限于合资、合作)
4. 提高原油采收率及相关新技术的开发应用(限于合资、合作)
5. 物探、钻井、测井、录井、井下作业等石油勘探开发新技术的开发与应用(限于合作)
6. 油页岩、油砂、重油、超重油等非常规石油资源勘探、开发(限于合作)
7. 铁矿、锰矿勘探、开采及选矿
8. 提高矿山尾矿利用率的新技术开发和应用及矿山生态恢复技术的综合应用
9. 海底可燃冰勘探、开发(限于合作)

三、制造业

(一) 农副食品加工业

1. 生物饲料、秸秆饲料、水产饲料的开发、生产
2. 水产品加工、贝类净化及加工、海藻功能食品开发
3. 蔬菜、干鲜果品、禽畜产品的储藏及加工

(二) 食品制造业

1. 婴儿、老年食品及功能食品的开发、生产

2. 森林食品的开发、生产和加工

3. 天然食品添加剂、食品配料生产 (限于合资、合作)

(三) 饮料制造业

1. 果蔬饮料、蛋白饮料、茶饮料、咖啡饮料、植物饮料的开发、生产

(四) 烟草制品业

1. 二醋酸纤维素及丝束加工 (限于合资、合作)

2. 造纸法烟草薄片生产 (限于合资、合作)

3. 过滤嘴棒加工生产 (限于合资、合作)

(五) 纺织业

1. 采用高新技术的产业用特种纺织品生产

2. 高档织物面料的织染及后整理加工

3. 符合生态、资源综合利用与环保要求的特种天然纤维 (包括除羊毛以外的其他动物纤维、麻纤维、竹纤维、桑蚕丝、彩色棉花等) 产品加工

4. 采用计算机集成制造系统的服装生产

5. 高档地毯、刺绣、抽纱产品生产

(六) 皮革、皮毛、羽毛(绒)及其制品业

1. 皮革和毛皮清洁化技术加工
2. 皮革后整饰新技术加工
3. 高档皮革(沙发革、汽车坐垫革)的加工

(七) 木材加工及木、竹、藤、棕、草制品业

1. 林业三剩物“次、小、薪”材和竹材的综合利用新技术、新产品开发与生产

(八) 造纸及纸制品业

1. 按林纸一体化建设的单条生产线年产30万吨及以上规模化学木浆和单条生产线年产10万吨及以上规模化学机械木浆以及同步建设的高档纸及纸板生产(限于合资、合作)

(九) 石油加工及炼焦业

1. 针状焦、煤焦油深加工

(十) 化学原料及化学制品制造业

1. 年产80万吨及以上规模乙烯生产(中方相对控股)
2. 乙烯下游产品衍生物的加工制造和乙烯副产品C4-C9产品(丁二烯生成合成橡胶除外)的综合利用

3. 年产 20 万吨及以上聚氯乙烯树脂生产 (乙炔法)
4. 钠法漂粉精、聚氯乙烯和有机硅深加工产品生产
5. 苯、甲苯、二甲苯、乙二醇等基本有机化工原料及其衍生物生产
6. 合成材料的配套原料：双酚 A 生产、过氧化氢氧化丙烯法生产环氧丙烷
7. 合成纤维原料：精对苯二甲酸、己内酰胺、尼龙 66 盐、熔纺涤纶树脂生产
8. 合成橡胶：溶液丁苯橡胶 (不包括热塑性丁苯橡胶)、丁基橡胶、异戊橡胶、聚异戊橡胶、丙烯酸橡胶、氯丁橡胶、乙丙橡胶、丁腈橡胶，以及氯磺橡胶、硅橡胶等特种橡胶生产
9. 工程塑料及塑料合金：聚苯醚 (PPO)、工程塑料尼龙 11 和尼龙 12、聚酰胺胺、聚砜、聚芳醚 (PAR)、液晶聚合物等产品生产
10. 精细化工：催化剂、助剂、添加剂新产品、新技术，染料 (颜) 料商品化加工技术，电子、造纸用高科技化学品，食品添加剂、饲料添加剂，皮革化学品 (N,N 二甲基甲酰胺除外)、油田助剂，表面活性剂，水处理剂，胶粘剂，无机纤维，无机纳米材料生产，颜料包膜处理深加工
11. 低滞后高耐磨炭黑生产
12. 环保型印刷油墨、环保型芳烃油生产
13. 天然香料、合成香料、单离香料生产
14. 高性能涂料、水性汽车涂料及配套水性树脂生产

15. 氟氯烃替代物生产
16. 有机氟系列化工产品生产（氟氯烃或氢氟氯烃、四氟乙烯除外）
17. 从磷化工、铜冶炼中回收氟资源生产
18. 大型煤化工产品生产（中方控股）
19. 林业化学产品新技术、新产品开发与生产
20. 烧碱用离子膜、无机分离膜、功能隔膜生产
21. 环保用无机、有机和生物膜开发与生产
22. 新型肥料开发与生产：生物肥料、高浓度钾肥、复合肥料、缓释可控肥料、复合型微生物接种剂、复合微生物肥料、秸秆及垃圾腐熟剂、特殊功能微生物制剂
23. 高效、安全农药新品种和高性能农药新剂型的开发与生产
24. 生物农药及生物防治产品开发与生产：微生物杀虫剂、微生物杀菌剂、农用抗生素、昆虫信息素、天敌昆虫、微生物除草剂
25. 废气、废液、废渣综合利用和处理、处置
26. 有机高分子材料生产：有机硅改性船舶外壳涂料、飞机蒙皮涂料、稀土硫化钾红色染料、无铅化电子封装材料、彩色等离子体显示屏专用系列光刻浆料、小直径大比表面积超细纤维、高精度燃油滤纸、锂离子电池隔膜、塑料加工用多功能复合助剂、柠檬酸甘油二酸

酯、氟喹菌脲、氟霜唑

(十一) 医药制造业

1. 新型化合物药物或活性成份药物的生产 (包括原料药和制剂)
2. 氨基酸类 : 丝氨酸、色氨酸、组氨酸、饲料用蛋氨酸等生产
3. 新型抗癌药物、新型心脑血管药及新型神经系统用药生产
4. 新型、高效、经济的避孕药具生产
5. 采用生物工程技术的新型药物生产
6. 杂环氟化物等含氟高生理活性药品及中间体的生产
7. 基因工程疫苗生产 (艾滋病疫苗、丙肝疫苗、避孕疫苗等)
8. 生物疫苗生产
9. 卡介苗和脊髓灰质炎疫苗生产
10. 海洋药物开发与生产
11. 药品制剂 : 采用缓释、控释、靶向、透皮吸收等新技术的新剂型、新产品生产
12. 新型药用辅料的开发及生产
13. 生物医学材料及制品 (人体尸体及其标本、人体器官组织及其标本加工除外) 生产

14. 兽用抗菌原料药生产 (包括抗生素、化学合成类)
15. 兽用抗菌药、驱虫药、杀虫药、抗球虫药新产品及新剂型开发与生产
16. 新型诊断试剂的生产

(十二) 化学纤维制造业

1. 差别化化学纤维及芳纶、碳纤维、高强高模聚乙烯、聚苯硫醚 (PPS) 等高新技术化纤生产
2. 新溶剂法纤维素纤维等环保型化纤的生产
3. 纤维及非纤维用新型聚酯生产 : 聚对苯二甲酸丙二醇酯 (PTT)、聚癸二酸乙二醇酯 (PEN)、聚对苯二甲酸丁二醇酯 (PBT)
4. 利用可再生资源、生物质工程技术生产的新型纤维材料生产 : 聚乳酸纤维 PLA、生物法多元醇 PDO 纤维等
5. 单线生产能力日产 100 吨及以上聚酰胺生产
6. 子午胎用芳纶纤维及帘线生产

(十三) 塑料制品业

1. 农膜新技术及新产品 (光解膜、多功能膜及原料等) 开发与生产
2. 废旧塑料的消解和再利用

3. 塑料软包装新技术、新产品（高阻隔、多功能膜及原料）开发与生产

（十四）非金属矿物制品业

1. 新型节能、环保建筑材料开发生产：轻质高强多功能墙体材料、高档环保型装饰装修材料、优质防水密封材料、高效保温材料

2. 以塑代钢、以塑代木、节能高效的化学建材生产

3. 年产 1000 万平方米及以上弹性体、塑性体改性沥青防水卷材，宽幅（2 米以上）优质三元乙丙橡胶防水卷材及配套材料，耐久性聚氯乙烯卷材，TPO 防水卷材生产

4. 屏蔽电磁波玻璃、微电子用玻璃基板、透红外线无铅玻璃、电子级大规格石英玻璃扩散管、超二代和三代微通道板、光学纤维面板和倒像器及玻璃光锥生产

5. 年产 5 万吨及以上玻璃纤维（池窑拉丝工艺生产线）及玻璃钢制品生产

6. 连续玻璃纤维原丝毡、玻璃纤维表面毡、微电子用玻璃纤维布及薄毡生产

7. 传像束及激光医疗光纤生产

8. 年产 100 万件及以上卫生瓷生产

9. 陶瓷原料的标准化精制、陶瓷用高档装饰材料生产

10. 水泥窑、高档（电子）玻璃、陶瓷、玻璃纤维、微孔炭砖等窑炉用高档耐火材料生产

11. 汽车催化装置用陶瓷载体、氮化铝 (AlN) 陶瓷基片、多孔陶瓷生产
12. 无机非金属材料及制品生产 : 人工晶体、碳/碳复合材料、特种陶瓷、特种密封材料、高速油封材料、特种胶凝材料、特种乳胶材料、水声橡胶制品、常温导热系数 0.025W/mK 及以下绝热材料等
13. 高技术复合材料生产 : 连续纤维增强热固性复合材料和预浸料、耐温 $> 300^{\circ}\text{C}$ 树脂基复合材料成型用工艺辅助材料、树脂基复合材料桨叶、树脂基复合材料高档体育用品、特殊性能玻璃钢 (压力 $> 1.2\text{MPa}$)、特种功能复合材料及制品、深水及潜水复合材料制品、医用及康复用复合材料制品、碳/碳复合材料及刹车片、高性能陶瓷基复合材料及制品、金属基复合材料及制品、金属层状复合材料及制品、压力 $\geq 320\text{MPa}$ 超高压复合胶管、大型客机航空轮胎
14. 精密高性能陶瓷及功能陶瓷原料生产 : 碳化硅 (SiC) 超细粉体 (纯度 $> 99\%$, 平均粒径 $< 1\mu\text{m}$)、氮化硅 (Si₃N₄) 超细粉体 (纯度 $> 99\%$, 平均粒径 $< 1\mu\text{m}$)、高纯超细氧化铝微粉 (纯度 $> 99.9\%$, 平均粒径 $< 0.5\mu\text{m}$)、低温烧结氧化锆 (ZrO₂) 粉体 (烧结温度 $< 1350^{\circ}\text{C}$)、高纯氮化铝 (AlN) 粉体 (纯度 $> 99\%$, 平均粒径 $< 1\mu\text{m}$)、金红石型 TiO₂ 粉体 (纯度 $> 98.5\%$)、白炭黑 (粒径 $< 100\text{nm}$)、钛酸钡 (纯度 $> 99\%$, 粒径 $< 1\mu\text{m}$)
15. 金刚石膜工具、厚度 0.3mm 及以下超薄人造金刚石薄片生产
16. 非金属矿精细加工 (超细粉碎、高纯、精制、改性)
17. 超大功率石墨电极生产

18. 珠光云母生产 (粒径 3-150 μ m)

19. 多维多向整体编制织物及仿形织物生产

20. 利用新型干法水泥窑无害化处置可燃工业废弃物和生活垃圾

(十五) 有色金属冶炼及压延加工业

1. 直径 200mm 以上硅单晶及抛光片、多晶硅生产

2. 高新技术有色金属材料生产：新型高性能储氢材料，锂离子电池电极材料，化合物半导体材料 (砷化镓、磷化镓、磷化铟、氮化镓)，高温超导材料，记忆合金材料 (钛镍、铜基及铁基记忆合金材料)，超细 (纳米) 碳化钙及超细 (纳米) 晶硬质合金，超硬复合材料，贵金属复合材料，散热器用铝箔，中高压阴极电容铝箔，特种大型铝合金型材，铝合金精密模锻件，电气化铁路架空导线，超薄铜带，耐蚀热交换器铜合金材，高性能铜镍、铜铁合金带，铍铜带、线、管及棒加工材，耐高温抗衰钨丝，镁合金铸件，无铅焊料，镁合金及其应用产品，泡沫铝，钛合金带材及钛焊接管，原子能级海绵镍，钨及钼深加工产品

(十六) 金属制品业

1. 汽车、摩托车轻量化及环保型新材料制造 (车身铝板、铝镁合金材料、摩托车铝合金车架等)

2. 建筑五金件、水暖器材及五金件开发、生产

3. 用于包装各类粮油食品、果蔬、饮料、日化产品等内容物的金属包装制品 (厚度 0.3 毫米以下) 的制造及加工 (包括制品的内外壁印涂加工)

(十七)通用机械制造业

1. 高档数控机床及关键零部件制造：五轴联动数控机床、数控座标镗铣加工中心、数控座标磨床、五轴联动数控系统及伺服装置、精密数控加工用高速超硬刀具
2. 1000吨及以上多工位墩锻成型机制造
3. 报废汽车拆解、破碎处理设备制造
4. FTL柔性生产线制造
5. 垂直多关节工业机器人、焊接机器人及其焊接装置设备制造
6. 特种加工机械制造：激光切割和拼焊成套设备、激光精密加工设备、数控低速走丝电火花线切割机、亚微米级超细粉碎机
7. 300吨及以上轮式、履带式起重机械制造（限于合资、合作）
8. 压力（35-42MPa）透轴高压柱塞泵及马达、压力（35-42MPa）低速大扭矩马达的设计与制造
9. 电液比例伺服元件制造
10. 压力（21-31.5MPa）整体多路阀、功率0.35W以下气动电磁阀、200Hz以上高频电控气阀设计与制造
11. 静液压驱动装置设计与制造

12. 压力 10MPa 以上非接触式气膜密封、压力 10MPa 以上干气密封 (包括实验装置)
的开发与制造

13. 汽车用高分子材料 (摩擦片、改型酚醛活塞、非金属液压总分泵等) 设备开发与制造

14. 第三、四代轿车轮毂轴承 (轴承内、外圈带法兰盘和传感器的轮毂轴承功能部件)、
高中档数控机床和加工中心轴承 (加工中心具有三轴以上联动功能、定位重复精度为 $3-4\mu$
 m)、高速线材、板材轧机轴承 (单速线材轧机轧速 120m/s 及以上、薄板轧机加工板厚度 2mm
及以上的支承和工作辊轴承)、高速铁路轴承 (行驶速度大于 200km/h)、振动值 Z4 以下低
噪音轴承 (Z4、Z4P、V4、V4P 噪音级)、各类轴承的 P4、P2 级轴承制造

15. 耐高温绝缘材料 (绝缘等级为 F、H 级) 及绝缘成型件制造

16. 液压气动用橡塑密封件开发与制造

17. 12.9 级及以上高强度紧固件制造

18. 汽车、摩托车用精铸、精锻毛坯件制造

19. 机床、汽车零部件 (五大总成除外)、工程机械再制造

(十八) 专用设备制造业

1. 矿山无轨采、装、运设备制造 : 100 吨及以上机械传动矿用自卸车, 移动式破碎机,
3000 立方米 / 小时及以上斗轮挖掘机, 5 立方米及以上矿用装载机, 2000 千瓦以上电牵引

采煤机等

2. 物探、测井设备制造: MEME 地震检波器, 数字遥测地震仪, 数字成像、数控测井系统, 水平井、定向井、钻机装置及器具, MWD 随钻测井仪

3. 石油勘探、钻井、集输设备制造: 工作水深大于 500 米的浮式钻井系统和浮式生产系统, 工作水深大于 600 米的海底采油、集输设备, 绞车功率大于 3000 千瓦、顶部驱动力大于 850 千瓦、钻井泵功率大于 1800 千瓦的深海用石油钻机, 钻井深度 9000 米以上的陆地石油钻机和沙漠石油钻机, 1000 万吨/年炼油装置用 80 吨及以上活塞往复压缩机, 数控石油深井封井仪, 石油钻井泥浆固孔设备

4. 直径 6 米以上盾构机系统集成设计与制造、直径 5 米以上全断面硬岩掘进机 (TBM) 系统集成设计与制造、口径 1 米以上深度 30 米以上大口径旋挖钻机制造、直径 1.2 米以上顶管机设计与制造、回拖力 200 吨以上大型非开挖铺设地下管线成套设备制造、地下连续墙施工钻机制造、自动垂直钻井系统制造

5. 100 吨及以上大型吊管机、320 马力及以上大型挖沟机设计与制造

6. 接地压力 0.03MPa 及以下、功率 220 马力及以上履带推土机, 520 马力及以上大型推土机设计与制造

7. 100 立方米/时及以上规格的清淤机、1000 吨及以上挖泥船的挖泥装置设计与制造

8. 防汛堤坝用混凝土防渗墙施工装备设计与制造

9. 水下土石方施工机械制造: 水深 9 米以下推土机、装载机、挖掘机等

10. 公路桥梁养护、自动检测设备制造
11. 公路隧道营运监控、通风、防灾和救助系统设备制造
12. 铁路大型施工、大型养路机械和运营安全设备的设计与制造
13. (沥青) 油毡瓦设备、镀锌钢板等金属屋顶生产设备制造
14. 环保节能型现场喷涂聚氨酯防水保温系统设备、聚氨酯密封胶配制技术与设备、改性硅酮密封胶配制技术和生产设备制造
15. 薄板坯连铸机、高精度带材轧机 (厚度精度 10 微米) 设计与制造
16. 直接还原铁和熔还原铁设备制造
17. 50 吨以上大功率直流电弧炉制造
18. 彩色涂、镀板材设备制造
19. 多元素、细颗粒、难选冶金矿的选矿装置制造
20. 80 万吨/年及以上乙烯成套设备中的关键设备制造 : 裂解气、乙烯丙烯离心压缩机 , 年处理能力 10 万吨以上混合造粒机 , 直径 800 毫米及以上离心机 , 工作温度 250℃ 以上、工作压力 15Mpa 以上的高温高压耐腐蚀泵和阀门 , -55℃ 以下的低温及超低温泵等 (限于合资、合作)
21. 大型煤化工成套设备制造 (限于合资、合作)

22. 金属制品模具 (如铜、铝、铁、锡的管、棒、型材挤压模具) 设计、制造、修理
23. 汽车车身外覆盖件冲压模具设计与制造、汽车及摩托车夹具、检具设计与制造
24. 精度高于 0.02 毫米 (含 0.02 毫米) 精密冲压模具、精度高于 0.05 毫米 (含 0.05 毫米) 精密塑胶模具、模具标准件设计与制造
25. 非金属制品模具设计与制造
26. 6 万瓶/时及以上啤酒灌装设备、5 万瓶/时及以上饮料中温及热灌装设备、3.6 万瓶/时及以上无菌灌装设备制造
27. 氨基酸、酶制剂、食品添加剂等生产技术及关键设备制造
28. 10 吨/小时及以上的饲料加工成套设备及关键部件制造
29. 楞高 0.75 毫米及以下的轻型瓦楞纸板及纸箱设备制造
30. 对开单张纸多色平版印刷机印刷速度大于 16000 对开张/时 (720×1020 毫米)、对开双面印单张纸多色平版印刷机印刷速度 13000 对开张/时 (720×1020 毫米)、全张幅单张纸多色平版印刷机印刷速度 13000 对开张/时 (1000×1400 毫米) 制造
31. 单幅单纸路卷筒纸平版印刷机印刷速度大于 75000 对开张/时 (787×880 毫米)、双幅单纸路卷筒纸平版印刷机印刷速度大于 170000 对开张/时 (787×880 毫米)、商业卷筒纸平版印刷机印刷速度大于 50000 对开张/时 (787×880 毫米) 制造
32. 速度 300 米/分钟以上、幅宽 1000 毫米以上多色柔版印刷机制造

33. 计算机墨色预调、墨色遥控、水墨速度跟踪、印品质量自动检测和跟踪系统、无轴传动技术、速度在 75000 张/时的高速自动接纸机、给纸机和可以自动温控调节的高速折页机、自动套印系统、冷却装置、加硅系统、调偏装置等制造

34. 平板玻璃深加工技术及设备制造

35. 高技术含量的特种工业缝纫机制造

36. 新型造纸机械(含纸浆)等成套设备制造

37. 皮革后整饰新技术设备制造

38. 农产品加工及储藏新设备开发与制造:粮食、油料、蔬菜、干鲜果品、肉食品、水产品等产品的加工储藏、保鲜、分级、包装、干燥等新设备,农产品品质检测仪器设备,农产品品质无损检测仪器设备,流变仪,粉质仪,超微粉碎设备,高效脱水设备,五效以上高效果汁浓缩设备,粉体食品物料杀菌设备,固态及半固态食品无菌包装设备,无菌包装用包装材料、乳制品生产用直接式发酵剂、碟片式分离离心机

39. 农业机械制造:农业设施设备(温室自动灌溉设备、营养液自动配置与施肥设备、高效蔬菜育苗设备、土壤养分分析仪器),配套发动机功率 120 千瓦以上拖拉机及配套农具,低油耗低噪音低排放柴油机,大型拖拉机配套的带有残余药粒回收装置的喷雾机,高性能水稻插秧机、棉花采摘机及棉花采摘台,适应多种行距的自走式玉米联合收割机(液压驱动或机械驱动)

40. 林业机具新技术设备制造

41. 农作物秸秆还田及综合利用设备制造、稻壳综合利用设备制造
42. 农用废物的综合利用及规模化畜禽养殖废物的综合利用设备制造
43. 节肥、节(农)药、节水型农业技术设备制造
44. 机电井清洗设备及清洗药物生产设备制造
45. 电子内窥镜制造
46. 眼底摄影机制造
47. 医用成像设备(高场强超导型磁共振 MRI、CT、X 线计算机断层、B 超等)关键部件的制造
48. 医用超声换能器(3D)制造
49. 硼中子俘获治疗设备制造
50. X 射线立体定向放射治疗系统制造
51. 血液透析机、血液过滤器制造
52. 全自动酶免系统(含加样、酶标、洗板、孵育、数据后处理等部分功能)设备制造
53. 药品质量控制新技术、新设备制造
54. 中药有效物质分析的新技术、提取的新工艺、新设备开发与制造

- 55. 新型药品包装材料、容器及先进的制药设备制造
- 56. 新型纺织机械、关键零部件及纺织检测、实验仪器开发与制造
- 57. 电脑提花人造毛皮机制造
- 58. 太阳能电池生产专用设备制造
- 59. 污染防治设备开发与制造
- 60. 城市垃圾处理设备及农村有机垃圾综合利用设备制造
- 61. 废旧塑料、电器、橡胶、电池回收处理再生利用设备制造
- 62. 水生生态系统的环境保护技术、设备制造
- 63. 日产 10 万立方米及以上海水淡化及循环冷却技术和成套设备开发与制造
- 64. 特种气象观测及分析设备制造
- 65. 地震台站、台网和流动地震观测技术系统开发及仪器设备制造
- 66. 三鼓及以上子午线轮胎成型机制造
- 67. 滚动阻力试验机、轮胎噪音试验室制造
- 68. 供热计量、温控装置新技术设备制造
- 69. 氢能制备与储运设备及检查系统制造

70. 新型重造油气化雾化喷嘴、漏汽率 0.5%及以下高效蒸汽疏水阀、1000℃及以上高温陶瓷换热器制造

71. 废旧轮胎综合利用装置制造

(十九) 交通运输设备制造业

1. 汽车整车制造(外资比例不高于50%)及汽车研发机构建设
2. 汽车发动机制造、发动机再生制造及发动机研发机构建设:升功率不低于50千瓦的汽油发动机、升功率不低于40千瓦的排量3升以下柴油发动机、升功率不低于30千瓦的排量3升以上柴油发动机、燃料电池和混合燃料等新能源发动机制造
3. 汽车关键零部件制造及关键技术研发:盘式制动器总成、驱动桥总成、自动变速箱、柴油机燃油泵、发动机进气增压器、粘性连轴器(四轮驱动用)、液压挺杆、电子组合仪表、车用曲轴及连杆(8升以上柴油发动机)、防抱死制动系统(ABS、ECU、阀体、传感器)、电子稳定系统(ESP)、电路制动系统(BBW)、电子制动力分配系统(EBD)、牵引力控制系统、汽车安全气囊用气体发生器、柴油电子喷射系统、燃油共轨喷射技术(最大喷射压力大于1600帕)、可变截面涡轮增压技术(VGT)、可变喷嘴涡轮增压技术(VNT)、达到中国IV阶段污染物排放标准的发动机排放控制装置、智能扭矩管理系统(ITM)及离合器总成、线控转向系统、柴油机颗粒捕捉器、智能气缸、汽车用特种橡胶配件
4. 汽车电子装置制造与研发:发动机和底盘电子控制系统及关键零部件,车载电子技术(汽车信息系统和导航系统),汽车电子总线网络技术(限于合资),电子控制系统的输入(传感器和采样系统)输出(执行器)部件,电动助力转向系统电子控制器(限于合资),

嵌入式电子集成系统 (限于合资、合作)、电控式空气弹簧、电子控制式悬挂系统、电子气门系统装置、电子油门、动力电池 (镍氢和锂离子) 及控制系统 (限于合资)、一体化电机及控制系统 (限于合资)、轮毂电机、多功能控制器 (限于合资)、燃料电池堆及其零部件、车用储氢系统、汽车、摩托车型试验及维修用检测系统

5. 摩托车关键零部件制造: 摩托车电控燃油喷射技术 (限于合资、合作)、达到中国摩托车III阶段污染物排放标准的发动机排放控制装置

6. 轨道交通运输设备 (限于合资、合作): 高速铁路、铁路客运专线、城际铁路、干线铁路及城市轨道交通设备的整车和关键零部件 (牵引传动系统、控制系统、制动系统) 的研发、设计与制造; 高速铁路、铁路客运专线、城际铁路及城市轨道交通旅客服务设施和设备的研发、设计与制造, 信息化建设中有关信息系统的设计与研发; 高速铁路、铁路客运专线、城际铁路的轨道和桥梁设备研发、设计与制造, 轨道交通通信信号系统的研发、设计与制造, 电气化铁路设备和器材制造、铁路噪声和振动控制技术与研发、铁路客车排污设备制造、铁路运输安全监测设备制造

7. 民用飞机设计、制造与维修: 干线、支线飞机 (中方控股)、通用飞机 (限于合资、合作)

8. 民用飞机零部件制造与维修

9. 民用直升机设计与制造: 3吨级及以上 (中方控股), 3吨级以下 (限于合资、合作)

10. 民用直升机零部件制造

11. 地面、水面效应飞机制造 (中方控股)

12. 无人机、浮空器设计与制造 (中方控股)
13. 航空发动机及零部件、航空辅助动力系统设计、制造与维修 (限于合资、合作)
14. 民用航空机载设备设计与制造 (限于合资、合作)
15. 民用运载火箭设计与制造 (中方控股)
16. 航空地面设备制造：民用机场设施、民用机场运行保障设备、飞行试验地面设备、飞行模拟与训练设备、航空测试与计量设备、航空地面试验设备、机载设备综合测试设备、航空制造专用设备、航空材料试制专用设备、民用航空器地面接收及应用设备、运载火箭地面测试设备、运载火箭力学及环境实验设备
17. 航天器光电产品、航天器温控产品、星上产品检测设备、航天器结构与机构产品制造
18. 轻型燃气轮机制造
19. 高新技术船舶及海洋工程装备的设计 (限于合资、合作)
20. 船舶 (含分段) 及海洋工程装备的修理、设计与制造 (中方控股)
21. 船舶低、中、高速柴油机的设计 (限于合资、合作)
22. 船舶柴油机零部件的设计与制造 (限于合资、合作)
23. 船舶低、中速柴油机及曲轴的设计与制造 (中方控股)

24. 船舶舱室机械、甲板机械的设计与制造（中方相对控股）

25. 船舶通讯导航设备的设计与制造：船舶通信系统设备、船舶电子导航设备、船用雷达、电罗经自动舵、船舶内部公共广播系统等

26. 远洋捕捞渔船、游艇的设计与制造（限于合资、合作）

（二十）电气机械及器材制造业

1. 60万千瓦超临界、100万千瓦超超临界火电站用关键设备制造（限于合资、合作）：
锅炉给水泵、循环水泵，工作温度 400℃以上、工作压力 20Mpa 以上的主蒸汽管路高温高压阀门

2. 百万千瓦级核电站用关键设备制造（限于合资、合作）：核I级、核II级泵和阀门

3. 火电站脱硫、脱硝、布袋除尘器技术及设备制造

4. 核电、火电设备的密封件设计、制造

5. 核电设备用大型铸锻件制造

6. 输变电设备（限于合资、合作）：非晶态合金变压器、500 千伏及以上高压电器用大套管、高压开关用操作机构及自主型整体弧触头、直流输电用干式电抗器、6 英寸直流换流阀用大功率晶闸管的设计与制造，符合欧盟 RoHS 指令的电器触头材料及无 Pb、Cd 的焊料制造

7. 新能源发电成套设备或关键设备制造（限于合资、合作）：光伏发电、地热发电、潮

汐发电、波浪发电、垃圾发电、沼气发电、1.5兆瓦及以上风力发电设备

8. 斯特林发电机组制造

9. 直线和平面电机及其驱动系统开发与制造

10. 太阳能空调、采暖系统、太阳能干燥装置制造

11. 生物质干燥热解系统、生物质气化装置制造

12. 交流调频调压牵引装置制造

13. 智能化塑壳断路器(电压380V、电流1000A)、大型工程智能化柜式或抽屉式断路器、带总线式智能化电控配电成套装置制造

(二十一) 通信设备、计算机及其他电子设备制造业

1. 数字摄录机、数字放声设备和数字影院制作、编辑、播放设备制造

2. TFT-LCD、PDP、OLED、FED(含SED等)平板显示屏、显示屏材料制造

3. 大屏幕彩色投影显示器用光学引擎、光源、投影屏、高清晰度投影管和微显投影设备模块等关键件制造

4. 数字音、视频编解码设备,数字广播电视演播室设备,数字有线电视系统设备,数字音频广播发射设备,数字电视上下变频器,数字电视地面广播单频网(SFN)设备,卫星数字电视上行站设备,卫星公共接收电视(SMATV)前端设备制造

5. 600 万像素以上高性能数字单镜头反光照相机制造
6. 集成电路设计,线宽 0.18 微米及以下大规模数字集成电路制造,0.8 微米及以下模拟、数模集成电路制造及 BGA、PGA、CSP、MCM 等先进封装与测试
7. 大中型电子计算机、百万亿次高性能计算机、便携式微型计算机、每秒一万亿次及以上高档服务器、大型模拟仿真系统、大型工业控制机及控制器制造
8. 计算机数字信号处理系统及板卡制造
9. 图形图像识别和处理系统制造
10. 大容量光、磁盘驱动器及其部件开发与制造
11. 高速、容量 100TB 及以上存储系统及智能化存储设备制造
12. 大幅面(幅宽 900mm 以上)高分辨率彩色打印设备、精度 2400dpi 及以上高分辨率彩色打印机头、大幅面(幅宽 900mm 以上)高清晰彩色复印设备制造
13. 计算机辅助设计(三维 CAD)、辅助测试(CAT)、辅助制造(CAM)、辅助工程(CAE)系统及其他计算机应用系统制造
14. 软件产品开发、生产
15. 电子专用材料开发与制造(光纤预制棒开发与制造除外)
16. 电子专用设备、测试仪器、工模具制造

17. 新型电子元器件制造：片式元器件、敏感元器件及传感器、频率控制与选择元件、混合集成电路、电力电子器件、光电子器件、新型机电元件、高密度互连积层板、多层挠性板、刚挠印刷电路板及封装基板
18. 高技术绿色电池制造：动力镍氢电池、镍镉蓄电池、锌银蓄电池、锂离子电池、高容量全密封免维护铅酸蓄电池、太阳能电池、燃料电池、圆柱型锌空气电池等
19. 发光效率 50lm/W 以上高亮度发光二极管、发光效率 50lm/W 以上发光二极管外延片（蓝光）、发光效率 50lm/W 以上且功率 200mW 以上白色发光管制造
20. RFID 芯片开发与制造
21. 高密度数字光盘机用关键件开发与生产
22. 只读类光盘复制和可录类光盘生产
23. 民用卫星设计与制造（中方控股）
24. 民用卫星有效载荷制造（中方控股）
25. 民用卫星零部件制造
26. 卫星通信系统设备制造
27. 卫星导航定位接收设备及关键部件制造
28. 光通信测量仪表、速率 10Gb/s 及以上光收发器制造

29. 超宽带 (UWB) 通信设备制造

30. 无线局域网 (广域网) 设备制造

31. 光交叉连接设备 (OXC)、自动光交换网络设备 (ASON)、40G/sSDH 以上光纤通信传输设备、光纤传输粗波分复用 (CWDM) 设备制造

32. 异步转移模式 (ATM) 及 IP 数据通信系统制造

33. 第三代及后续移动通信系统手机、基站、核心网设备以及网络检测设备开发制造

34. 高端路由器、千兆比以上网络交换机开发、制造

35. 空中交通管制系统设备制造 (限于合资、合作)

(二十二) 仪器仪表及文化、办公用机械制造业

1. 现场总线控制系统及关键零部件制造

2. 大型精密仪器开发与制造：包括电子显微镜、激光扫描显微镜、扫描隧道显微镜、功率 2kw 以上激光器、电子探针、光电直读光谱仪、拉曼光谱仪、质谱仪、液相色谱仪、工业色谱仪、色-质联用仪、核磁共振波谱仪、能谱仪、X 射线荧光光谱仪、衍射仪、工业 CT、大型动平衡试验机、在线机械量自动检测系统、转速 100000r/min 以上超高速离心机、大型金相显微镜、三坐标测量机、激光比长仪、电法勘探仪、500m 以上航空电法及伽玛能谱测量仪器、井中重力及三分量磁力仪、高精度微伽重力及航空重力梯度测量仪器、地球化学元素野外现场快速分析仪、便携式地质雷达

3. 高精度数字电压表、电流表制造 (显示量程七位半以上)
4. 无功功率自动补偿装置制造
5. 两相流量计、固体流量计制造
6. 电子枪自动镀膜机制造
7. 管电压 800 千伏及以上工业 X 射线探伤机制造
8. 安全生产及环保检测仪器新技术设备制造
9. VXI 总线式自动测试系统 (符合 IEEE1155 国际规范) 制造
10. 煤矿井下监测及灾害预报系统、煤炭安全检测综合管理系统开发与制造
11. 工程测量和地球物理观测设备制造 : 数字三角测量系统、三维地形模型数控成型系统 (面积 $> 1000 \times 1000 \text{mm}$ 、水平误差 $< 1 \text{mm}$ 、高程误差 $< 0.5 \text{mm}$)、超宽带地震计 ($\varphi < 5 \text{cm}$ 、频带 $0.01\text{--}50 \text{Hz}$ 、等效地动速度噪声 $< 10\text{--}9 \text{m/s}$)、地震数据聚合处理系统、综合井下地震和前兆观测系统、精密可控震源系统、工程加速度测量系统、高精度 GPS 接收机 (精度 $1 \text{mm} + 1 \text{ppm}$)、INSAR 图像接收及处理系统、INSAR 图像接收及处理系统、精度 < 1 微伽的绝对重力仪、卫星重力仪、采用相干或双偏振技术的多普勒天气雷达、能见度测量仪、气象传感器 (温、压、湿、风、降水、云、能见度、辐射、冻土、雪深)、防雷击系统、多级粉尘采样计、3-D 超声风速仪、高精度智能全站仪、三维激光扫描仪、钻探用高性能金刚石钻头、无合作目标激光测距仪、风廓线仪 (附带 RASS)、GPS 电子探控仪系统、 $\text{CO}_2/\text{H}_2\text{O}$ 通量观测系统、边界层多普勒激光雷达、颗粒物颗粒光谱仪 ($3 \text{nm}\text{--}20 \mu\text{m}$)、高性能数据采

集器、水下滑翔器

12. 环保检测仪器的新技术设备制造：空气质量检测、水质检测、烟气在线检测仪器的新技术设备，应急处理所需仪器和成套系统发展新型微光学多组分析系统、自校准、组合式、低漂移、联网遥测、温控仪器及系统等

13. 大气污染防治设备制造：耐高温及耐腐蚀滤料、燃煤电厂湿式脱硫成套设备、低NOX燃烧装置、烟气脱氮催化剂及脱氮成套装置、工业有机废气净化设备、柴油车排气净化装置

14. 水污染防治设备制造：卧式螺旋离心脱水机、膜及膜材料、10kg/h以上的臭氧发生器、10kg/h以上的二氧化氯发生器、紫外消毒装置、农村小型生活污水处理设备

15. 固体废物处理处置设备制造：垃圾填埋厂防渗土工膜、危险废物处理装置、垃圾填埋场沼气发电装置、规模化畜禽养殖废弃物的综合利用设备

16. 环境监测仪器制造：SO₂自动采样器及测定仪、NO_x及NO₂自动采样器及测定仪、O₃自动监测仪、CO自动监测仪、烟气及粉尘自动采样器及测定仪、烟气自动采样器及测定仪、便携式有毒有害气体测定仪、空气有机污染物自动分析仪、COD自动在线监测仪、BOD自动在线监测仪、浊度在线监测仪、DO在线监测仪、TOC在线监测仪、氨氮在线监测仪、辐射剂量检测仪、射线分析测试仪

17. 水文数据采集、处理与传输和防洪预警仪器及设备制造

18. 海洋勘探监测仪器和设备制造：中深海水下摄像机和水下照相机、多波束探测仪、中浅地层剖面探测仪、走航式温盐深探测仪、磁通门罗盘、液压绞车、水下密封电子连接器、

效率>90%的反渗透海水淡化用能量回收装置、效率>85%的反渗透海水淡化用高压泵、反渗透海水淡化膜(脱盐率>99.7%)、日产2万吨以上低温多效蒸馏海水淡化装置、海洋生态系统监测浮标、剖面探测浮标、一次性使用的电导率温度和深度测量仪器(XCTD)、现场水质测量仪器、智能型海洋水质监测用化学传感器(连续工作3~6个月)、电磁海流计、声学多普勒海流剖面仪(自容式、直读式和船用式)、电导率温度深度剖面仪、声学应答释放器、远洋深海潮汐测量系统(布设海底)

(二十三)其他制造业

1. 洁净煤技术产品的开发利用及设备制造(煤炭气化、液化、水煤浆、工业型煤)
2. 煤炭洗选及粉煤灰(包括脱硫石膏)、煤矸石等综合利用
3. 全生物降解材料的生产

四、电力、煤气及水的生产及供应业

1. 采用整体煤气化联合循环(IGCC)、30万千瓦及以上循环流化床、10万千瓦及以上增压循环流化床(PHBC)洁净燃烧技术电站的建设、经营
2. 背压型热电联产电站的建设、经营
3. 发电为主水电站的建设、经营
4. 核电站的建设、经营(中方控股)
5. 新能源电站(包括太阳能、风能、磁能、地热能、潮汐能、波浪能、生物质能等)

建设经营

6. 海水利用（海水直接利用、海水淡化）、工业废水处理回收利用产业化

7. 城市供水厂建设、经营

五、交通运输、仓储和邮政业

1. 铁路干线网的建设、经营（中方控股）

2. 支线铁路、地方铁路及其桥梁、隧道、轮渡和站场设施的建设、经营（限于合资、合作）

3. 高速铁路、铁路客运专线、城际铁路基础设施综合维修（中方控股）

4. 公路、独立桥梁和隧道的建设、经营

5. 公路货物运输公司

6. 港口公用码头设施的建设、经营

7. 民用机场的建设、经营（中方相对控股）

8. 航空运输公司（中方控股）

9. 农、林、渔业通用航空公司（限于合资、合作）

10. 定期、不定期国际海上运输业务（中方控股）

11. 国际集装箱多式联运业务

12. 输油(气)管道、油(气)库的建设、经营

13. 煤炭管道运输设施的建设、经营

14. 运输业务相关的仓储设施建设、经营

六、批发和零售业

1. 一般商品的配送

2. 现代物流

七、租赁和商务服务业

1. 会计、审计(限于合作、合伙)

2. 国际经济、科技、环保信息咨询

3. 以承接服务外包方式从事系统应用管理和维护、信息技术支持管理、银行后台服务、财务结算、人力资源服务、软件开发、呼叫中心、数据处理等信息技术和业务流程外包服务

八、科学研究、技术服务和地质勘查业

1. 生物工程与生物医学工程技术、生物质能源开发技术

2. 同位素、辐射及激光技术

3. 海洋开发及海洋能开发技术、海洋化学资源综合利用技术、相关产品开发和精深加工技术、海洋医药与生化制品开发技术

4. 海洋监测技术（海洋浪潮、气象、环境监测）、海底探测与大洋资源勘查评价技术

5. 综合利用海水淡化后的浓海水制盐、提取钾、溴、镁、锂及其深加工等海水化学资源高附加值利用技术

6. 节约能源开发技术

7. 资源再生及综合利用技术、企业生产排放物的再利用技术开发及其应用

8. 环境污染治理及监测技术

9. 化纤生产的节能降耗、三废治理新技术

10. 防沙漠化及沙漠治理技术

11. 草畜平衡综合管理技术

12. 民用卫星应用技术

13. 研究开发中心

14. 高新技术、新产品开发与企业孵化中心

九、水利、环境和公共设施管理业

1. 综合水利枢纽的建设、经营（中方控股）

2. 城市封闭型道路建设、经营

3. 城市地铁、轻轨等轨道交通的建设、经营（中方控股）

4. 污水、垃圾处理厂，危险废物处理处置厂（焚烧厂、填埋场）及环境污染治理设施的建设、经营

十、教育

1. 高等教育机构（限于合资、合作）

十一、卫生、社会保障和社会福利业

1. 老年人、残疾人和儿童服务机构

十二、文化、体育和娱乐业

1. 演出场所经营（中方控股）

2. 体育场馆经营、健身、竞赛表演及体育培训和中介服务

限制外商投资产业目录

一、农、林、牧、渔业

1. 农作物新品种选育和种子开发生产（中方控股）

2. 珍贵树种原木加工 (限于合资、合作)

3. 棉花 (籽棉) 加工

二、采矿业

1. 特殊和稀缺煤种勘查、开采 (中方控股)

2. 重晶石勘查、开采 (限于合资、合作)

3. 贵金属 (金、银、铂族) 勘查、开采

4. 金刚石等贵重非金属矿的勘查、开采

5. 磷矿开采、选矿

6. 硼镁石及硼镁铁矿石开采

7. 天青石开采

8. 大洋锰结核、海砂的开采 (中方控股)

三、制造业

(一) 农副产品加工业

1. 大豆、油菜籽食用油脂加工 (中方控股), 玉米深加工

2. 生物液体燃料 (燃料乙醇、生物柴油) 生产 (中方控股)

(二) 饮料制造业

1. 黄酒、名优白酒生产 (中方控股)
2. 碳酸饮料生产

(三) 烟草制品业

1. 打叶复烤烟叶加工生产

(四) 印刷业和记录媒介的复制

1. 出版物印刷 (中方控股, 包装装潢印刷除外)

(五) 石油加工及炼焦业

1. 年产 800 万吨及以下炼油厂建设、经营

(六) 化学原料及化学制品制造业

1. 烧碱 (氢氧化钠)、钾碱 (氢氧化钾) 生产
2. 感光材料生产
3. 联苯胺生产
4. 易制毒化学品生产 (麻黄素、3, 4-亚基二氧苯基-2-丙酮、苯乙酸、1-苯基-2-丙酮、胡椒醛、黄樟脑、异黄樟脑、醋酸酐)

5. 氟氯烃或氢氟氯烃、四氟乙烯、氟化铝、氢氟酸生产

6. 顺丁橡胶、乳液聚合丁苯橡胶、热塑性丁苯橡胶生产

7. 甲烷氯化物（一氯甲烷除外）、电石法聚氯乙烯生产

8. 硫酸法钛白粉、平炉法高锰酸钾生产

9. 烧结铁矿石加工

10. 钡盐、锶盐生产

(七) 医药制造业

1. 氯霉素、青霉素 G、洁霉素、庆大霉素、双氯链霉素、丁胺卡那霉素、盐酸四环素、土霉素、麦迪霉素、柱晶白霉素、环丙氟哌酸、氟哌酸、氟喹酸生产

2. 安乃近、扑热息痛、维生素 B1、维生素 B2、维生素 C、维生素 E、多种维生素制剂和口服钙剂生产

3. 国家计划免疫的疫苗（卡介苗和脊髓灰质炎疫苗除外）、菌苗类及抗毒素、类毒素类（白百破、麻疹、乙脑、流脑疫苗等）生产

4. 麻醉药品及一类精神药品原料药生产（中方控股）

5. 血液制品的生产

6. 非自毁式一次性注射器、输液器、输血器及血袋生产

(八) 化学纤维制造业

1. 常规切片纺的化纤抽丝生产
2. 粘胶短纤维生产

(九) 橡胶制品业

1. 旧轮胎翻新(子午线轮胎除外)及低性能工业橡胶配件生产

(十) 有色金属冶炼及压延加工业

1. 钨、钼、锡(锡化合物除外)、锑(含氧化锑和硫化锑)等稀有金属冶炼
2. 电解铝、铜、铅、锌等有色金属冶炼
3. 稀土冶炼、分离(限于合资、合作)

(十一) 金属制品业

1. 集装箱生产

(十二) 通用设备制造业

1. 各类普通级(P0)轴承及零件(钢球、保持架)、毛坯制造
2. 300吨以下轮式、履带式起重机械制造(限于合资、合作)

(十三) 专用设备制造业

1. 中低档 B 型超声显像仪制造

2. 一般涤纶长丝、短纤维设备制造

3. 320 马力及以下推土机、30 吨级及以下液压挖掘机、6 吨级及以下轮式装载机、220

马力及以下平地机、压路机、叉车、135 吨级及以下非公路自卸翻斗车、路面铣平返修机械
设备、园林机械和机具、商品混凝土机械（托泵、搅拌车、搅拌站、泵车）制造

（十四）交通运输设备制造业

1. 普通船舶（含分段）修理、设计与制造（中方控股）

（十五）通信设备、计算机及其他电子设备制造业

1. 卫星电视广播地面接收设施及关键件生产

2. 税控收款机产品制造

四、电力、煤气及水的生产和供应业

1. 西藏、新疆、海南等小电网范围内，单机容量 30 万千瓦及以下燃煤凝汽火电站、单
机容量 10 万千瓦及以下燃煤凝汽抽汽两用机组热电联产电站的建设、经营

2. 电网的建设、经营（中方控股）

五、交通运输、仓储和邮政业

1. 铁路货物运输公司

2. 铁路旅客运输公司 (中方控股)
3. 公路旅客运输公司
4. 出入境汽车运输公司
5. 水上运输公司 (中方控股)
6. 摄影、探矿、工业等通用航空公司 (中方控股)
7. 电信公司：增值电信业务 (外资比例不超过 50%)，基础电信中的移动话音和数据服务 (外资比例不超过 49%)，基础电信中的国内业务和国际业务 (外资比例不超过 35% ，不迟于 2007 年 12 月 11 日允许外资比例达 49%)

六、批发和零售业

1. 直销、邮购、网上销售、特许经营、委托经营、商业管理等商业公司
2. 粮食、棉花、植物油、食糖、药品、烟草、汽车、原油、农药、农膜、化肥的批发、零售、配送 (设立超过 30 家分店、销售来自多个供应商的不同种类和品牌商品的连锁店由中方控股)
3. 音像制品 (除电影外) 的分销 (限于合作、中方控股)
4. 商品拍卖
5. 船舶代理 (中方控股)，外轮理货 (限于合资、合作)

6. 成品油批发及加油站 (同一外国投资者设立超过 30 家分店、销售来自多个供应商的不同种类和品牌成品油的连锁加油站, 由中方控股) 建设、经营

七、金融业

1. 银行、金融租赁公司、财务公司、信托投资公司、货币经纪公司
2. 保险公司 (寿险公司外资比例不超过 50%)
3. 证券公司 (限于从事 A 股承销, B 股和 H 股以及政府和公司债券的承销和交易, 外资比例不超过 1/3), 证券投资基金管理公司 (外资比例不超过 49%)

4. 保险经纪公司

5. 期货公司 (中方控股)

八、房地产业

1. 土地成片开发 (限于合资、合作)
2. 高档宾馆、别墅、高档写字楼和国际会展中心的建设、经营
3. 房地产二级市场交易及房地产中介或经纪公司

九、租赁和商务服务业

1. 法律咨询

2. 市场调查 (限于合资、合作)

3. 资信调查与评级服务公司

十、科学研究、技术服务和地质勘查业

1. 测绘公司 (中方控股)

2. 进出口商品检验、鉴定、认证公司

3. 摄影服务 (含空中摄影等特技摄影服务 , 但不包括测绘航空摄影 , 限于合资)

十一、水利、环境和公共设施管理业

1. 大城市燃气、热力和供排水管网的建设、经营 (中方控股)

十二、教育

1. 普通高中教育机构 (限于合资、合作)

十三、卫生、社会保障和社会福利业

1. 医疗机构 (限于合资、合作)

十四、文化、体育和娱乐业

1. 广播电视节目制作项目和电影制作项目 (限于合作)

2. 电影院的建设和经营 (中方控股)

3. 大型主题公园的建设、经营

4. 演出经纪机构（中方控股）

5. 娱乐场所经营（限于合资、合作）

十五、国家和我国缔结或者参加的国际条约规定限制的其他产业

禁止外商投资产业目录

一、农、林、牧、渔业

1. 我国稀有和特有的珍贵优良品种的养殖、种植（包括种植业、畜牧业、水产业的优良基因）

2. 转基因植物种子、种畜禽、水产苗种的开发、生产

3. 我国管辖海域及内陆水域水产品捕捞

二、采矿业

1. 钨、钼、锡、锑、萤石勘查、开采

2. 稀土勘查、开采、选矿

3. 放射性矿产的勘查、开采、选矿

三、制造业

(一) 饮料制造业

1. 我国传统工艺的绿茶及特种茶加工(名茶、黑茶等)

(二) 医药制造业

1. 列入《野生药材资源保护条例》和《中国珍稀、濒危保护植物名录》的中药材加工
2. 中药饮片的蒸、炒、炙、煨等炮炙技术的应用及中成药保密处方产品的生产

(三) 有色金属冶炼及压延加工业

1. 放射性矿产的冶炼、加工

(四) 专用设备制造业

1. 武器弹药制造

(五) 电气机械及器材制造业

1. 开口式(即酸雾直接外排式)铅酸电池、含汞扣式氧化银电池、糊式锌锰电池、镉镍电池制造

(六) 工业品及其他制造业

1. 象牙雕刻

2. 虎骨加工

3. 脱胎漆器生产

4. 珐琅制品生产

5. 宣纸、墨锭生产

6. 致癌、致畸、致突变产品和持久性有机污染物产品生产

四、电力、煤气及水的生产和供应业

1. 西藏、新疆、海南等小电网外，单机容量 30 万千瓦及以下燃煤凝汽火电站，单机容量 10 万千瓦及以下燃煤凝汽抽汽两用热电联产电站的建设、经营

五、交通运输、仓储和邮政业

1. 空中交通管制公司

2. 邮政公司

六、租赁和商务服务业

1. 社会调查

七、科学研究、技术服务和地质勘查业

1. 人体干细胞、基因诊断与治疗技术开发和应用

2. 大地测量、海洋测绘、测绘航空摄影、行政区域界线测绘、地图编制中的地形图编制、普通地图编制的导航电子地图编制

八、水利、环境和公共设施管理业

1. 自然保护区和国际重要湿地的建设、经营
2. 国家保护的原产于我国的野生动、植物资源开发

九、教育

1. 义务教育机构，军事、警察、政治和党校等特殊领域教育机构

十、文化、体育和娱乐业

1. 新闻机构
2. 图书、报纸、期刊的出版、总发行和进口业务
3. 音像制品和电子出版物的出版、制作和进口业务
4. 各级广播电台（站）、电视台（站）、广播电视频道（率）、广播电视传输覆盖网（发射台、转播台、广播电视卫星、卫星上行站、卫星收转站、微波站、监测台、有线广播电视传输覆盖网）
5. 广播电视节目制作经营公司
6. 电影制作公司、发行公司、院线公司

7. 新闻网站、网络视听节目服务、互联网上网服务营业场所、互联网文化经营

8. 录像放映公司

9. 高尔夫球场的建设、经营

10. 博彩业（含赌博类跑马场）

11. 色情业

十一、其他行业

1. 危害军事设施安全和使用效能的项目

十二、国家和我国缔结或者参加的国际条约规定禁止的其他产业