## Decree of the National Development and Reform Commission

No. 40

Directory Catalogue on Readjustment of Industrial Structure (Version 2005), which has been approved by the State Council, is hereby promulgated and shall come into force as of the date of its promulgation.

Director of the National Development and Reform Commission, Ma Kai

December 2, 2005

# Directory Catalogue on Readjustment of Industrial Structure (Version 2005)

## Category I. Encouragement Project

- I. Agricultural and forestry
  - 1. Integrated treatment of median- and low-yield farmland
  - 2. State-level construction of farm produce bases
  - 3. Soilless cultivation of vegetables and flowers
- **4.** Development and application of the planting and breeding technology featuring high quality, high yield, efficiency and standardization
- 5. Prevention and curing of serious plant diseases and insect pests and animal diseases
- **6.** The construction of genetic engineering of crop, domestic animal, domestic fowls, aquatic animal and plant as well as wildlife and gene bank
- 7. Breed selection, breeding, breed conservation and development of good strains of seeds of animals and plants
  - 8. Development and application of seed (seedling) detox
- 9. Technology development of dry land water saving agriculture, protective cultivation, ecological agricultural construction, arable land quality construction as well as technological development of rapid fertilizing
- 10. Technological development and application of ecological planting (or breeding)
- 11. Development and application of pollution-free and degradation membrane for agricultural use as well as heavy metal degradation technology in agricultural soils
  - 12. Research and development of green feedstuff and additive
  - 13. Stock enhancement engineering of inland watershed lakes
  - 14. Distant fishery
  - **15.** Cow breeding
  - 16. Industrialization production of embryo (in vivo) and semen
  - 17. Development of agricultural clone technology
- 18. Maintenance care of arable land and the development of rapid measuring technology of soil, fertilizer and water
- 19. Construction of germ plasm conservation land and conservation region of agricultural and forestry species as well as the collection, conservation, appraisal and application of germ plasm resources
- 20. Returning corn stalks to the field as well as its comprehensive utilization (including ensile, cattle raising with ammoniated straw, returning to land, gasification, cultivating edible fungus and etc.)

- 21. Development project of the comprehensive utilization of agricultural renewable resources (methane project, ecological homeland and etc.)
  - 22. The project of restoring lake on farmland
  - 23. Cultivation of edible (officinal) fungus
  - 24. Comprehensive control project of disasters in grassland and forest
- 25. Utilization of the non-agrarian land and the forest or (forest (grassland) converted from arable land (and grazed field) and restoration of the natural grassland
- **26.** Development of new diagnosis reagent, vaccine and medicines with low-toxin and low-residues for animal epidemics
  - 27. Artificial planting of high-yield pasture
  - 28. Planting and development of natural rubber
- 29. Development and application of monitoring technology of pollution-free farm produce and the harmful element measuring in its origin environment
- **30.** Development and application of the technology featuring innocuous disposal of organic castoff as well as the industrialization technology of organic fertilizer
- **31.** Innocuous agricultural, husbandry and fishery products development and the application and development of green production technology
- **32.** Warehousing and transportation, preserving, processing and comprehensive utilization of agricultural, forestry, animal husbandry and fishery
  - **33.** Project for the natural resource conservation such as natural forest
  - **34.** Tree and grass planting and seedling project
- **35.** Development and application of comprehensive technology concerning water and soil conservation
  - **36.** Ecosystem restoration and reconstruction project
- **37.** Construction of natural reserve covering forest, wildlife, wetland desert, grassland and etc., and eco-demonstration project
  - 38. Shelter forest
  - **39.** Desertification control and sand prevention and control project
- 40. New material production for sand fixing, water conservation and soil improvement
  - 41. Cultivation of salinity tolerance and cold-resistant plants
- 42. Fast-growing and high-yield plantation project, industrial material forest project, and construction of new, and economic forest featuring nobility, specialty, excellence
- **43.** Construction of bamboo and rattan as well as the development of new production technology
  - 44. Young and sapling tending project
- **45.** Protection, amelioration, development and utilization of wild economic forest species
  - 46. Conservation project of endangered species of wild fauna and flora
  - 47. Forest genetic resources conservation project
- 48. Deep processing of shoddy and little woods, shrubs grown in sand and three remains and development of serial products
- **49.** Establishment of breeding and cultivation base of wildlife and monitoring and alert system of epidemic disease
- **50.** Cultivation (planting) of fine traditional Chinese medicine and fine, plentiful, endangered or rare animal or vegetable drugs
- 51. Artificial cultivation and development of underwood species such as spice, wild flower
  - **52.** Development of the wood base composite technology
  - 53. Production and comprehensive utilization of Bamboo engineering materials

and plant fibre engineering materials

- **54.** Deep processing of forestry chemical products
- **55.** Development and application of weather modification technology such as artificial rain increase and hail suppression

### II. Water conservancy

- 1. Control of big rivers and lakes as well as harnessing project of the river branches
  - 2. Trans-valley water diversion project
  - 3. Water source projects in regions short of water resources
- 4. Water-drinking by human and animals in rural areas as well as the water improvement projects
  - 5. Safety construction of flood storage and retention areas
  - 6. Maintenance and construction of sea dikes
  - 7. Silt clean-up in rivers, lakes and reservoirs
- 8. Danger removal and consolidation of sick and dangerous reservoirs and embankments
- **9.** Supervision upon hidden troubles in the dykes and the application of restoration technology
  - 10. Urban waterlogging and flood-prevention project
  - 11. Correction works of outlet to sea
  - 12. comprehensive utilization of key water-control project
  - 13. Pastureland water conservancy
  - 14. Warp land dam engineering
  - 15. Civil engineering composite materials in water conservancy projects
- 16. Reclamation of large and medium-sized irrigation area and its supporting facility construction
- 17. Construction of emergency facilities to prevent and control flood and drought
- 18. Water provision and allocation with high efficiency and water saving irrigations and the equipment production
- 19. Development of Automated systems for automatic measurement and reporting of water situation and flood control
- 20. Manufacture of instruments and equipment for hydrological data gathering III. Coal
  - 1. Coalfield and geophysical exploration
- 2. Construction of high-yield and high-efficient mines (including mine and the open air ones) with the annual yield over 1.2 million ton and high-efficient coal washery
  - 3. Preventing mine disaster (gas, coal dust, mine water, fire, wall rock).
- 4. Development and production of environment-friendly mine for industrial and life use
  - 5. Development and application of coal water mixture technology
  - **6.** Development and application of gasification of coal and liquefaction
  - 7. Exploration and development of coalbed gas and utilization of mine gas
- 8. Utilization of low-calorie fuels (including coal slack), the development of associated resources in coal mines as well as the equipment manufacture
  - 9. Pipeline coal transmission
- 10. Development and application of efficient washing and desulphurization technology
  - 11. Development and application of water-waving coal cleaning technology
- 12. Governance of sank ground, protection and utilization of water resources in mines
  - 13. Integrated construction of coal, electricity, and coked coal (coke-oven

gas, deep processing of coal tar)

- 14. Coal mining method to improve resource recovery, application of technology development and equipment manufacture
- IV. Electric Power
  - 1. Waterpower
- 2. Construction of the machines plant with the capacity no less than 600,000 kw per machine and exceeding the critical
- 3. Heat-supply machines with the concentrated integrated thermal power capacity no less than 300,000 kw as well as the joint generation of heat, electricity and cold power
- **4.** Construction of large scale air-cool power generating machines with the capacity no less than 600, 000 kw per machines in water-shortage area
- 5. Development and utilization of wind energy power to generate electricity and such renewable resources as solar energy, geothermal energy, ocean energy, biomass energy and etc.
  - 6. Joint and cycling power generation by fuel gas and steam
- 7. Clean coal power generation through joint and cycling means such as cyclic fluidized bed boiler with the capacity no less than 300, 000 kw, pressurized fluidized bed and integral coal gasification
- 8. Electricity generation through the unit machine with its capacity no less than 200, 000 kw as well as cyclic fluidized bed boiler and coal slack and faulty coal
- $9.\ \mbox{Direct}$  or alternate current transmission and transforming with the capacity no less than  $500\ \mbox{kw}$ 
  - 10. Desulphurization reclamation of the operating generating sets
  - 11. Reform and construction of power network in urban and rural areas
- 12. Technological development of relaying protection, and information safety supervision
- 13. Development of intensive design of large-scale plants and large power network transformer as well as the automatic technology
  - 14. Trans-regional interconnecting network
- 15. Extension and application of new technology for power transmission and transformation
- 16. Development and application of the technology with regard to reduction of electric loss in the process of transmission, transformation and distribution
- 17. Development and application of technology concerning scattered electricity provision
- V. Nuclear Energy
  - 1. Geological exploration, exploitation and for uranium mine and smelting
- 2. Low-temperature heat supply nuclear reactor, fast neutron breeder reactor and fusion reactor, advanced research reactor, high temperature gas-cooled reactor,
  - 3. Construction of nuclear power plant
  - 4. Manufacture of high-performance nuclear fuel elements
  - **5.** Reprocessing of spent nuclear fuel
- **6.** Manufacture of instruments and apparatuses for nuclear analysis and nuclear survey
  - 7. Development of isotope, accelerator and irradiation applied technology
  - 8. Technological development of advanced uranium isotope separation
- 9. Technological development of radioprotection and manufacture of monitoring equipment
- 10. Development of instrument and meter for nuclear facility protection VI. Petroleum and Natural Gas

- 1. Petroleum and natural gas exploration and exploitation
- 2. Exploration and exploitation of natural gas hydrate
- 3. Warehousing and transportation of crude oil, natural gas, product oil and construction of tube transmission facilities and network
  - 4. Comprehensive utilization of oil and gas associated resource
- 5. Technological development and application with regard to improving recovery ratio of oil-gas field, insurance technology and facilities for safety production, recovery of ecological environment and pollution prevention
- 6. Recycling of dumped natural gas VII. Steel
- 1. Exploration of ferrous metal mine alternative resource and technological development of key exploration
- 2. Construction of new generation large-volume mechanic coke oven of coke dry quenching, coal charging and coke pushing and cleaning apparatus with the height and width of the carbonization chamber no less than 6 meter and 500 mm respectively
- 3. Technological development of blended coal coking and tamping coking, techniques
- 4. Technological application of dry quenching of cock, heat exchange technology of heating conducting oil
- 5. Production of grate and rotary kiln with the annual yield 1.2 million ton and such acid pellets as belt pellet firing machine
- **6.** Ironmaking through direct reduction process with the annual yield no less than 150,000 ton
  - 7. Technological development and application of advanced and applicable fusion
- 8. Processing of scrap steel (sorting, shearing and packaging, steelmaking excluded)
- 9. Technological development and application of alloy steel square billet, large stencil, round billet, abnormal billet and near-terminal continuous casting
- 10. Development and application of modern hot rolling wide band rolling mill key technology and critical component manufacture
- 11. Development and application of thin slab continuous casting and tandem rolling key technology and critical component manufacture
  - 12. High tension steel production
  - 13. Steel production for high-speed heavy haul railway use
- 14. Steel tube production for oil well pipe in oil extraction, high-pressure boiler tuber in plant, long-distance transmission of oil and gas
  - 15. Production of H type steel, deformed bar no less than 400MPa
- 16. Development and application of cold continuous rolling wide band steel key technology and critical component manufacture
  - 17. Production of cold roll silicon steel sheet
- 18. Technological application of controlled rolling, controlled cooling technology
- 19. Production of ultra-high power graphite electrode with the diameter no less than 500 mm
  - 20. Production of furnace micropore for large blast use, and ultra micropore
- 21. Production of refractory materials featuring fine-composition and irregularity
  - 22. Technological development of new ferroalloy technics and technology
  - 23. Integrated thermal power with full coal gas
  - 23. Completely fueled coal gas thermoelectric joint production
  - 24. Application of heat storage combustion technology
  - 25. Application of integrated automation of metallurgy technology

### VIII. Non-ferrous Metal

- 1. Non-ferrous metal mine alternative resource exploitation and development of its key technology
- 2. Construction of large and medium-sized mines of copper, aluminum, lead, zinc and nickel
  - 3. Exploitation of rare resources in of deep and difficult mineral deposit
- 4. Development and application of pollution-free and intensified sulfur material melting technology
  - 5. Development of high-efficiency extraction equipment and technics
- 6. Production and technological development of fine copper plate, copper belt, foil and tube
- 7. Development of the production technology of fine aluminum plate, belt, foil and high-speed sheet band casting and rolling technology and the relevant equipment manufacture
  - 8. Manufacture of high-performance metals for railway use
  - 9. Development and application of non-ferrous metal composite materials
- 10. Production of high-performance, fine cemented carbide and its further processed product and production of ceramic material
  - 11. Further processing of rare earth metal and its application
  - 12. Production of tin compounds, antimony compounds (antinomy oxide excluded)
  - 13. Manufacture of high-performance magnetic material
  - 14. Production of superfine materials, electronic pulp and its products
  - 15. Manufacture of non-crystal alloy thin belts
  - 16. Manufacture of new braking materials
- 17. High-quality magnesium alloy casting and the relevant plate, tube and section articles development
- 18. Development of non-ferrous production procedure supervision technology and its control technology
- 19. Development and application of calcinations, hot-pressure pre-oxidization and bacteria-oxidization and gold extraction technique

#### IX. Chemical Products

- 1. Exploitation of chemical raw material and construction of large and mediumsized chemical raw material mine
- 2. Construction of energy-saving and environmental-friendly nitrogenous fertilizer and the localized and economic reform of raw material
- **3.** Production of high-quality phosphate and compound fertilizer, potassium fertilizer and exclusive compound fertilizers
- 4. Development and production of high-efficiency, low-toxin, safe and new pesticide and midbody
- **5.** Inorganic chemical production facilities constructed and reformed by cleaning production technology
  - **6.** Environmental-friendly coating production
- 7. Production of new biochemical products, exclusively fine chemical products and membrane material
- 8. Development and production of new, high-efficiency and pollution-free catalyst
- 9. Production of organosilicon, organofluorin, and high-performance inorganic fluorination products
  - 10. Production of inorganic nanometer and functionality material
  - 11. Development and production of new dyestuff and its midbody
  - 12. Construction of large arene production equipments
- 13. Reclamation of the facilities for improving quality of oil fining and saving energy

- 14. Construction large ethane (with the annual yield no less than 800,000 tons in the eastern and offshore regions and no less than 600,000 tons in the western region) as well as the alteration and extended construction of the existing ethane
- 15. Development of large synthetic resin its new techniques, as well as its new products
- 16. Manufacture of large caprolactam, glycol, acrylonitrile as well as their complete equipments
- 17. Development advanced technologies such as of large synthetic rubber, synthetic latex as well as thermoplastic elastomer as well as the relevant products
- 18. Production of exclusive chemical products for textile use such as new environmental-friendly oil, auxiliary agent for
- 19. Production of composite material, functionality polymers, engineering plastic and low-cost and engineering plastics and new plastic alloys
- **20.** Production of large-scale and basic organic chemical products adopting new techniques
- 21. Production of advanced road asphalt, polymer modified asphalt, and special asphalt
  - 22. Comprehensive utilization of heavy crude oil with low sulfurs
- 23. Technological development of auxiliary agent, new sorbent, high-performance additive and composition for processing synthetic resin
- 24. Manufacture of PVC by oxychlorination means with the annual yield no less than 200,000 tons
  - 25. Production of titanium pigment by chlorination means
- **26.** Production of advanced belt tyre radial, its supporting materials and equipment production
  - 27. Production of alcohol ether fuel
- X. Building Material
- 1. Development of ripe-material new dry-process cement, equipment and supporting material with the daily yield no less than 4,000tons (daily yield no less than 2,000 tons in western regions)

and over

- 2. Development and production of new energy-saving, environmental-friendly walling materials, insulation and deadening material, waterproof and airproof material, architectural coating
  - 3. Production of fine environmental-friendly friction and airproof material
- 4. Development and production of alkali free glass fibre of direct melting process and high-performance glass fibre and manufacture technology
- **5.** Production of fine and energy-saving composite doors and windows as well as hardware fitting
- **6.** Development and manufacture of new type tube (including pipe fitting) technology
- **6.** Development of fine float glass technique, equipment, energy-saving and safe sheet glass deep processing technology
- 8. Development of water closet with the amount of wash water no more than 6 liter each time, water-saving urinal and pan
- 9. Production of high-tech and environmental-friendly and high purity, superfine mineral material development and manufacture of technological equipment
- 10. Development of key technology and equipment concerning absorbing industrial castoff, town refuse, and innocuous and renewable disposal in the process of the production of such building products as new type dry-process cement and new type walling material

- 11. Technological development of Mechanics & Forming Technology concerning fibrous glass reinforced plastic products (glass reinforced plastics)
  - 12. Technological development of bulk cement equipment
- 13. Technological development and production of high-performance concrete additive
- 14. Development and manufacture of artificial sand production line with the annual yield no less than 500,000 tons and its technological equipment
- 15. Construction of large-scale cement milling with the annual yield no less than 1 million tons
- 16. Production of large-scale scrapped stone material with the annual yield more than 200,000 cubic mater and super-thin composite stone plate with its annual yield more than 300,000 cubic meter
- 17. Development of high-quality artificial crystal material production technology

#### XI. Medicine

- 1. Development and production of new medicine with independent intellectual property right
- 2. Development and production of vaccine and medicine to prevent grave infectious disease
  - 3. development and production of new diagnosis reagent and biochip
- **4.** Development and production of new birth control medicine and apparatus (including the 3rd generation progestogen contraceptive, the 3rd generation intra-uterine device and etc.,)
  - 5. Development and natural medicine, marine drug
  - **6.** Development and production of new preparation supplementary material
  - 7. Development and production of key medicine midbody
- 8. Development and production of new technology and new products of medicine bioengineering
  - 9. Development and production of new pharmaceutical preparation
- 10. Development and production of large scale medicine polypeptide and nuclear acid synthesis, zymolysis production and purification technology
- 11. Development and production of membrance technology, supercritical extraction technology, chirality technology and self-incrimination technology and etc..
  - 12. Development and application of pharmaceutical cleaning products technology
  - 13. Development of new packing materials for medicine and its technology
- 14. Modernization of traditional Chinese medicine (development of artificial propagation breeding technology for endangered species; application of advanced agricultural technology in the standardized planting, breeding pf traditional Chinese medicine; development and application of the new extraction, purification and quality control technology of active ingredient of traditional Chinese medicine; development and application of modern formation technology of traditional Chinese medicine, development and application of process control process and equipment; development and industrialization of new technology of traditional Chinese medicine prepared in ready-to-use forms)
  - 15. Production and development of ethnic minority medicine
- 16. Development and manufacture of digital medical image products and medical information technology
  - 17. Development and manufacture of early diagnosis medical treatment apparatus
- 18. Development and manufacture of Minimal Access Surgery and interventional therapy equipment and apparatus
- 19. Development and production of medical first-aid and rehabilitation engineering technology and apparatus

- 20. Breeding of animal for experiment use
- 21. Development and utilization of microorganism

### XII. Mechanism

- 1. Manufacture of key components and parts and cutter in digital control machine-tool
- 2. Manufacture of Triple axes joint-operation, speedy, precise numerically controlled machine numerical control system and alternating current servo mechanism
  - 3. Development and manufacture of new transducer
- 4. Manufacture of sedan bearing, railway bearing, precise bearing and low noise bearing
- 5. Manufacture of 8.5M rotor and over mixed current and axle current hydropower generation equipment and its key matching auxiliary engines
- **6.** Manufacture of large-size constant flow and pumping energy conservation hydropower generating units and its key matching auxiliary engines
- 7. Development of supercritical and hypercritical thermal power generating units with the capacity no less than 600,000 kw, its equipment manufacture as well as its key matching auxiliary engines
- $\pmb{8.}$  Manufacture of circulating fluidized bed boiler with its capacity no less than  $300,000~\mathrm{kw}$
- **9.** Manufacture of gas and steam joint cycling equipment with its capacity no less than 400,000 kw
- 10. Development of large, precise casting and forging technology for exclusive use and its equipment manufacture
- 11. Manufacture of ultra-high-pressure direct or alternate current transmission and transforming Equipment complex with its capacity no less than 500 kv
- 12. Manufacture of clean energy generating equipment (nuclear power, wind power generating, solar energy, tide and etc.,)
- 13. Development and application of synthetic ammonia equipment with its annual yield no less than 300,000 tons
- 14. Technological development and application of ethane equipment complex with its annual yield no less than 600,000 tons
- 15. Development and manufacture of DCS control system intelligence on-the-spot meter
  - 16. Development and manufacture of precision instrument
- 17. Manufacture of new hydraulic pressure, airtight pneumatic elements and parts
  - 18. Development of automatic welding equipment and its equipment production
  - 19. Design and manufacture of large and precision mould and automobile mould
- 20. Development of controllable atmospheric and large-scale vacuum heat treatment technology and equipment as well as its equipment manufacture
- 21. Design and manufacture of safety production and environmental protection testing instruments
  - 22. Manufacture of urban refuse treatment equipment
  - 23. Manufacture of fly ash warehousing and transportation equipment complex
- 24. Manufacture of recycling equipment for old and used battery, plastic, old and used rubber
  - 25. Manufacture of equipment for seawater desalination and its direct use
  - 26. Development and manufacture of industrial robot and its equipment complex
- 27. Manufacture of mine integrated exploitation and transportation equipment complex as well as large coal wash-dressing equipment
- 28. Manufacture of large glory hole equipment complex with its annual yield no less than 20 million tons

- 29. Manufacture of large oil and gas gathering and transferring equipment
- 30. Manufacture of automatic speedy, multi-color printing equipment
- 31. High-efficiency use of seeds, fertilizer, water and pesticide and manufacture of farm machinery such as protective farming and etc.
- **32.** Development and manufacture of seeds processing equipment complex with the yield more than 5 ton per hour
- **33.** Manufacture of automatic breed equipment complex including poultry and animal breeding
  - 34. Manufacture of agricultural equipment
- **35.** Equipment manufacture for deep processing agricultural, forest, fishery, animal husbandry, resource comprehensive utilization
  - 36. Manufacture of key equipments of straws comprehensive utilization
- **37.** Manufacture of harvesting machine (cotton, rice, corn, bean, potato, grass feedstuff)
- **38.** Development of industrialization production equipment for afforestation and artificial vegetable
- **39.** Development and manufacture of major engineering construction and key components and parts
- **40.** Development and manufacture of electricity-controlled combustion engine and key components and parts
  - 41. Development cold (heat) accumulation technology and equipment manufacture
  - 42. Manufacture of large energy retrieving arrangement equipment complex
- **43.** Design and manufacture of no-less-than-7, 000 meters deep drilling equipment complex
  - 44. Manufacture of high-efficiency dredging equipment
  - **45.** Manufacture of medical trash collection processing equipment
- 46. Development of automatic meteorological station system and equipment manufacture
  - 47. Manufacture of special meteorological observation and analysis
- 48. Systematic development of seismic station, network and dynamic meteorological observation technology and its equipment manufacture
- 49. Development of new technology for geologic hazard observation and treatment as well as its equipment research and development
  - 50. Manufacture of harmful gas purification equipment
- 51. Technology and equipment relevant to food quality safety inspection and testing
- **52.** Manufacture of equipment for dismantling scrapped and used automobile **XIII.** Automobile
- 1. Systematic design and development of for automobile, motorcycle, engine and their key components and parts
- 2. Manufacturing of such key components and parts as automatic transmission case, heavy automobile automatic transmission case, advanced convenient automobile and engine with independent property right (brand)
- 3. Manufacture of automobile lightweight and environmental-friendly new material
- 4. Precision forging and stamping, multi-station compression molding and forging of key automobile components and parts
- **5.** Systematic development and manufacture of detection piece for automobile and motorcycle experiment and maintenance
- **6.** Research, development and manufacture of compressed natural gas, hydrogen fuel, synthol, liquefied petroleum gas, ether fuel and new energy for mixed dynamic automobile, dynamoelectric automobile, fuel cell automobile and their relevant components and parts.

- 7. Advanced low-displacement economic automobile, pallet carrier, multi-spindle special car
  - 8. Development and manufacture of advanced diesel motor for sedan
  - 9. Development and manufacture of urban low-chassis bus

### XIV. Marine Vessel

- 1. Design and manufacture of high-tech, high-performance, special vessel and large vessel with its capacity no less than 100,000 tons
- 2. Manufacture of passenger ship, ferry-type boat, passenger chest ship, seatrain with its capacity no less than 10,000 tons
- 3. Manufacture of LPG and LNG ships with their volume no less than 5000 cubic meters individually
- 4. Manufacture of TEU and container ships with their volume no less than 3, 000 standard boxes
  - 5. Manufacture of power system, plant and special auxiliary engines
- 6. Design and manufacture of marine engineering equipments such as large ocean ships and offshore drilling ships, drilling platform, ocean floating oil storage ship.
- 7. Design and manufacture of ship control and automatic communication and navigation, instrument and meter

## XV. Aviation and Spaceflight

- 1. Development and manufacture of aircraft and its components and parts
- 2. Development and manufacture of aero engine
- 3. Development and manufacture of airborne equipment
- 4. Development and manufacture of helicopter body, rotor system and transmission system
  - 5. Development and production of new material for aviation and spaceflight use
  - **6.** Manufacture of gas turbine for aviation and spaceflight use
  - 7. Manufacture of satellite, carrier rocket and their components and parts
- **8.** Development and production of aviation and spaceflight applied technology and the system hardware and software as well as the terminal products
  - 9. Development and manufacture of aircraft ground simulation training system
- 10. Development and manufacture of aircraft ground maintenance and detection facilities
- 11. Construction of satellite ground system and its equipment manufacture XVI. Light Industry
- 1. Production of integrated wood pulp, paper and carton in line with economic scale
- 2. Development and production of high-tech pulping and papermaking machine and its equipment complex
  - 3. Mould design, processing and manufacture of metalloid products
  - 4. Development of biological degradable plastic and its serial products
- **5.** Development and production of agricultural plastic water-saving instrument and multilayer membranes
- **6.** Development of high-tech ceramics (including industrial ceramics) and equipment technology
  - 7. Development and application of ceramics clean production technology
- 8. Development and manufacture of optical-mechanical-electronic integration sewing machine and special industrial sewing machine
- **9.** Development of new technology of natural perfume, compound essence and production manufacture
- 10. Research, development and production of new ecological (easily degradable, recoverable and recycling) package material
  - 11. Development and manufacture of new plastic products such as new plastic

warming plate, large-caliber plastic pipe (its diameter is more than 0.5 m), ultra-low noise drainage plastic tube, anti-seepage geomembrane, medical plastic

- 12. Development and application of high-and-new digital printing technology and high-definition printmaking system
- 13. Manufacture of high-tech environmental-friendly battery and cell (mercury-free alkali manganese battery, nickel hydrogen battery, lithium ion battery, high-capacity, airproof, maintenance free lead acid cell, fuel cell, zinc air cell, solar cell)
  - 14. Products for ethnic minorities natural additive for foodstuff technology
  - 15. Development and application of
- 16. Development and application of ECF and TCF chemical pulp bleaching technology

## XVII. Textile

- 1. Production, printing and dyeing of top grade textile products and after-
- 2. Production of top-grade chemical fiber fabrics by adopting high-emulation fiber technology
- 3. Production of all kinds of differential, functional chemical fiber, hightech fiber
- **4.** Production of fiber and new non-fiber Polyester (polyethylene terephthalate, polydiacid glycol ester, PTB and etc.,)
- 5. Processing of special natural fiber meeting the demand of ecological, resource comprehensive utilization and environmental protection (including animal fiber, fibrilia, bamboo fiber, mulberry silk, colored cotton and etc.)
  - **6.** Production of special textile by employing high-and-new technology
- 7. Manufacture of new high-tech textile machinery and its key components and parts
  - 8. Production of top-grade carpet, drawnwork and embroider)
  - 9. Production of top-grade clothing by adopting CIMS
- 10. Production of new fibers (Poly-lactic acid, fiber produced through solvent, propagation albumen fiber and etc.) by using renewable resources
- 11. Development and manufacture of testing and experiment instrument needed by textile and textile machine production enterprises

## XVIII. Architecture

- 1. Development of energy-saving and land-saving architecture
- 2. Development of tall building and spatial structure technology
- 3. Development and manufacture of low-noise building-operation appliance
- 4. Manufacture of high-performance periphery constructional material and parts of housing
  - **5.** Development of new construction system
- **6.** Research, development and extension of building shock insulation and absorption structural system and its products
- 7. Development of architectural water-saving, energy-saving, land-saving and material-saving key technology
- **8.** Production of intelligence construction projects and research upon manufacture and integration technology
- **9.** Application of on-heat-basis central heating technology in residence and public building
- 10. Development of commodity concrete, commodity mortar and its engineering techniques

### XIX. Urban Infrastructure and Real Estate

1. Production of urban basic spatial information data production and key technique development

- 2. Construction of urban public traffic
- 3. Construction of urban road and intelligence transportation system
- 4. Development of urban traffic control system and its equipment manufacture
- **5.** Construction of urban underground tunnel
- 6. Urban water supply and sewage project, water supply source and water treatment plant
  - 7. Urban fuel project
  - 8. Central heating supply construction and redevelopment work
  - 9. Urban water collection and utilization project during the rainy season
  - 10. Manufacture of energy-saving, low-pollution heating installation
  - 11. Cities and towns garden afforestation and ecological community construction
  - 12. Construction of urban sky parking
- 13. Research, development and extension of advanced and applicable building packaged technology, products and housing
  - 14. Filling gas project for fuel gas automobile
  - 15. Development of information technology for urban construction administration
  - 16. Development of key technology concerning urban ecological system
- 17. Systematic development of urban expressway, urban railway transportation (approved by the State) and manufacture of automobile
  - 18. Development and application of urban water-saving technology
- 19. Systematic and technological development of intelligent urban illumination, environmental-friendly illumination products
- **20.** Nation model residence engineering construction **XX.** Railway
  - 1. Newly-built railway construction
- 2. Speed acceleration and extension of transport capacity for the existed railway
- 3. Development and construction of passenger special line and express railway system technology
- **4.** Development of locomotive synchro control, ECP, and axle-weight cargo heavy load with its capacity no less than 25 tons
- 5. Development of railway operations safety technology assurance system and the relevant equipments
- **6.** Manufacture of automatic classification yard and of handling mechanization equipment
  - 7. Development of railway transport information system
  - 8. Development and construction of railway container transport
- **9.** Equipment manufacture and technological development of AC-driven locomotive, motor train unit, plateau locomotive, rescue aid of locomotive
- 10. Manufacture of core elements and parts of locomotive AC-driven locomotives (including IGCT and IGBT)
- 11. Development of railway contact line, switches and crossings, towage electricity supply technology with the speed no less than 200 km per hour and its equipment manufacture
- 12. Development of power factor compensation technology for electricity compensation in electric railway towage
- 13. Development of railway line detection and rolling stock checking technology and its equipment manufacture
- 14. Development and manufacture of large road maintainer, multipurpose road maintainer, and facility for project use
  - 15. Development of automatic traffic control technology
- 16. Remedy of concrete structure and development of durability technology and material

- 17. Development and application of high-speed magnetic levitation traffic system technology and its material
- 18. Bowl collector in the passenger train and the works to clean and treat ground dirt

### XXI. Highway

- 1. Construction of national main trunk line, main trunk line in the developing western region, national expressway network project
  - 2. Development and construction of intelligence highway transportation system
  - 3. Development and construction of speedy transport of both travelers and goods
  - 4. Development and construction of highway management information system
  - 5. Development and production of new materials for highway engineering
- 6. Design and manufacture of new mechanic equipment for highway engineering and maintenance
  - 7. Highway container and compartment
  - 8. Development of huge long span bridge and its maintenance technology
- **9.** Construction of long and large tunnels and development of its maintenance technology
  - 10. Development and construction of rural passenger transportation network
  - 11. Construction of rural highway

## XXII. Water Transport

- 1. Construction of deep-water berths (ten thousand tons in the offshore region and thousand tons in the inland river)
- 2. Construction of sea outlet deep channel and inland river trunk line as well as navigation building
  - 3. Large port automatic handling project
  - 4. Ocean shipping EDI system development
- 5. Construction and development of above water safety guard system and life saving and salvage equipment
  - **6.** Inland navigation and standardization of ship type
- 7. Design and manufacture of special engineering and mechanic equipment needed by port, deep channel, and navigation hinge
  - 8. Container multimodal transportation and above water container transport
  - 8. High-speed above-water passenger transport
  - 10. Marine transport of crude oil, product oil and natural gas
- 11. Construction and development of vessel oil spilling monitoring and emergency elimination system
  - 12. Above water Ro/Ro multimodal transport and waterway staple bulk freight
  - 13. Construction of water carriage information system
  - 14. International liner transport

## XXIII. Air Transport

- 1. Airport construction
- 2. Public air transportation
- 3. General aviation
- 4. Construction of air traffic control and communication navigation system
- 5. Aircraft maintenance
- **6.** Aviation computer management and its network development and construction
- 7. Construction of aviation petroleum facilities
- 8. Development and manufacture of aviation special vehicle, freight yard equipment, storage equipment, cargo container, high performance airport security inspection facilities, high performance fire fighting equipment
- 9. Air and sea supervision and patrol as well as the salvage facility construction

XXIV. Information Industry

- 1. Construction of optical synchro transmission system with its capacity no less than 2.5GB/S
- 2. Construction of digital microwave synchro transmission equipment with its capacity no less than 155MB/S
- 3. Manufacture and construction of satellite communication system, earth station equipment
- 4. Construction communication supporting networks such as administrator monitoring, signaling No. 7, synchronous clock, and charging
  - 5. Production and equipment of data communication network
- 6. Production and construction of such new service networks as intelligent network
  - 7. Manufacture and construction of wide band network equipment
  - 8. Construction of digital cellular mobile telecommunications
  - 9. IP service network construction
  - 10. Post saving network construction
  - 11. Postal integrated service network construction
  - 12. Automation engineering of mail handling
  - 13. Construction of satellite digital TV broadcasting system
  - 14. Construction of telecom value-added service platform
- 15. Manufacture of wavelength division multiplexing transmission system equipment with its capacity no less than 32 waves
- 16. Manufacture of digital synchronization series optical fiber communication system with its capacity no less than 10GB/S
  - 17. Manufacture of new technology facilities supporting communication network
  - 18. Manufacture of stratosphere communication system equipment
- 19. Manufacture of digital mobile communication (including GSM-R) access network system, Digital cluster telecommunications systems and such network equipments as router and gateway
- 20. Manufacture of large and medium-sized electronic computer and high performance microcomputer, workstation, server
- 21. Design and manufacture of large scale integrated circuit with the width of the wire less than 1.2 micron
  - 22. Manufacture of LSI
- 23. Production of new electronic parts and components (including elements and parts in chips, frequency elements and parts, power electronic device, photoelectron device, sensitive elements, parts and sensors, new type electron mechanical device, high density printing circuit board and flexibility circuit board and etc.)
  - 24. Manufacture of special-purpose materials for electronics
  - 25. Software development and production
  - **26.** Development and production of CAD, CAT, CAM, CAE system
- 27. Manufacture of special-purpose equipment for electronics, instrument and moulds
- 28. Manufacture of high capacity optical and disk drive and parts and digital memory card
- 29. Manufacture of new-type display device, medium and high definition color picture tube/ display tube and class bulb and the relevant technology development
- **30.** Manufacture of new-type (non-variance) mono-mode fiber and optical fiber prefabrication rod
  - 31. Manufacture of digital audio-visual broadcasting equipment
  - 32. Manufacture of high-density digital laser optical player disc
  - 33. Copy and manufacture of CDROM and CDR
  - 34. Manufacture of digital video movie, digital record-replay equipment and

digital TV

- **35.** Manufacture of Ordinary paper fax machine
- **36.** Development and manufacture of information safety products, specialized equipment for network supervision
  - 37. Manufacture of digital multi-feature telephone
- **38.** Manufacture of no-less-than- 6-inch monocrystalline silicon, multicrystal silicon and wafer
  - 39. Doppler radar technology and its equipment manufacture
  - 40. Manufacture of automobile electronic products
  - 41. Manufacture of medical treatment electronic products
  - 42. Manufacture of financial electronic equipment and its system construction
- **43.** Development of wireless LAN (Wi-Fi short-distance radio communication technology and etc.) and its equipment development
  - 44. Development of e-commerce and e-government system
- 45. Development satellite navigation system technology and its equipment manufacture

## XXV. Other Service Industry

- 1. Construction of e-commerce, modern logistic service system and such new retails as the small and medium-sized supermarket, convenience store, special store constructed by means of chain-store operations
- 2. Construction of modern storage logistic facilities for such important commodities as grain, cotton, sugar, edible oil, fertilizer, petroleum and etc.
- **3.** Construction of modernized agricultural farm produce market and the construction for trade-industry-agriculture integration
- 4. Construction of idle equipment, used goods, old vehicle dispensing trading market
- 5. Construction of socialized services system for small and medium-sized enterprises
  - 6. Construction of agriculture and forestry socialized service system
  - 7. Rental services
  - **8.** Logistics socialized service
  - 9. Construction of urban community service outlets
  - 10. Real estate agency service, realty management service
  - 11. Socialized service for the aged
  - 12. Construction of the disabled service facilities
- 13. Construction of basic medical treatment, birth control, disease prevention and health service facility construction
  - 14. Blood pool construction
  - 15. Long-distance medical care
- 16. Construction of cultural and art, the press and publications, mass culture, scientific knowledge popularization, sport equipment and its industrialized operation
  - 17. Cultural relic protection and its facility construction
- 18. Infant education, compulsory education, high school education, advanced school education, professional education and special education
  - 19. Construction of long-distance education system
  - 20. Construction of minor sites and social welfare facilities for the children
- 21. Construction travel infrastructure and development of travel information service system
- 22. Construction of industrial travel, agricultural travel, forest travel, ecological travel and other comprehensive development items for tourism resources
  - 23. Credit card and its network service
  - 24. Development of tourism commodities and the souvenirs

- 25. Consultant, tutorship, agency and training service
- **26.** Construction of state engineering (technology) research center, enterprise technology center granted by the State, key libraries, high and new incubator service center, new product development and design center, scientific research pilot plants, scientific experiment base
- 27. Such scientific services as science popularization, technology popularization, science and technology exchange, intellectual property and meteorology, environmental protection, surveying and mapping, seism, ocean and technology supervision
- 28. Consultancy for economy, programming, engineering, management, accountant, auditing, law and etc.
- 29. Scientific research supporting sharing service for scientific instrument, experimental animals, literature information and etc.
  - **30.** Commodity quality certification and quality testing
  - 31. Development and application of anti-counterfeiting techniques
  - 32. Credit information and grade service system
  - **33.** Cartoon making
- XXVI. Environmental Protection and Energy-saving Comprehensive Utilization
  - 1. Mining environmental protection restore works
  - 2. Ocean exploitation and ocean environmental protection
  - **3.** Biodiversity protection engineering
- 4. Development and utilization of brackish water, inferior water and seawater and seawater desalination project
- 5. Development and utilization of alternative for ozonosphere substance consumption
  - 6. Construction of medical treatment garbage disposition center
  - 7. Construction of danger castoff treatment center
  - 8. Construction of regional old and useless automobile treatment center
  - 9. Environmental radiation monitoring engineering for the outflow
- 10. Development and application of environmental monitoring engineering and new environmental protection technology
- 11. Development and manufacture of radioactive waste and treatment technology for treatment of other danger waste
- 12. Development and application of prevention technology for mobile pollution source (train, shipping, automobile and etc.)
  - 13. Development of urban traffic noise and vibration control and its material
- 14. Development of grid, electromagnetic radiation technology for information system
- 15. Development and application of dioxins release reduction and control technology
- 16. Development and application of the alternative of sustainable organic pollutant products
- 17. Development and production of permanent abandoned organic pollutant treatment technology
- 18. Comprehensive utilization and control project of three wastes ( (waste water, waste gases and waste residues)
- 19. Development and production of bacteria and additive for the treatment of three wastes ( (waste water, waste gases and waste residues)
- **20.** Development and application of mercury waste recycling and its supporting facilities
- 21. Development of recycling water technology and its equipment manufacture and utilization
  - 22. Development of high-efficiency, low-energy-saving sewage treatment and its

recycling technology and its facility manufacture

- 23. Reduction, recycling and innocuous treatment of urban refuse and other solid refuse and their comprehensive utilization project
  - 24. Production of anti-seepage membrane for burying wastes
  - 25. Development and production of new-type water treatment medicament
- **26.** Development of coal gas, flue gas dedusting, desulfurization and its device development and the relevant equipment manufacture
  - 27. Development of noise abatement wall technology and its material development
- 28. Development and application of AC frequency conversion and energy-conservation technology
- 29. Development and application of motor vehicle, diesel locomotive oil-saving technology
- **30.** Production and new-type energy-conservation and environmental-friendly household appliance and its key parts and components and technology development
  - 31. Production of water-and-energy-saving products
  - 32. Development and production of water monitoring equipment
- **33.** Development of new type energy-conservation lighting products and its production technology as well as its supporting material and equipment
- **34.** Development and application of energy-conservation, water-conservation and environmental-friendly and resource comprehensive utilization and its equipment manufacture
- **35.** Afterheat electricity generation through new type dry method cement manufacture of grog with its daily yield no less than 2,000 tons
- **36.** Recycling and comprehensive utilization of blast furnace, converter, cokeoven gas
- **37.** Energy-saving and environmental protection alteration of high-energy-consumption, heavy pollution in petroleum, petroleum chemical and chemical industries
- 38. Development of high-efficiency energy-saving mine-exploitation, mineral dressing technology (medicament) and its equipment complex
  - 39. Comprehensive utilization of mixed elements mineral resource
- 40. Development and comprehensive treatment of inferior, complicated and intractable mine
  - 41. Comprehensive utilization of gangue, waste residue
  - 42. Industrialization of renewable resource recycling

# Category II. Restriction

- I. Agriculture and Forestry
  - 1. Overgraze in natural grassland
- ${f 2.}$  Medium density fiberboard with the annual yield no less than 500,000 cubic meters
  - 3. Wood flakeboard with the uniline 30, 000 cubic meters annually
  - 4. Rosin production with the annual yield less than 1,000 tons

### II. Coal

- 1. Items with the individual well model less than the above scales: the yield 300,000 tons annually in Shanxi, Shaanxi and Inner Mongolia; the annual yield 150,000 tons in Xinjiang, Gansu, Ningxia, Qinghai, Beijing, Hebei, Northeast and East China; annual yield 90,000 West and Middle South; annual yield 30,000 tons for the exploitation of ultra thin seam.
  - 2. Coal exploitation by employing non-mechanic technique
  - 3. The coal items with its design failure to meet the recycling rate
  - 4. Coal item without the general programming of the coal industry authority of

the central government or the province (prefecture, city)

### III. Electric Power

- 1. Normal coal-fuel thermal power generating units with the unit machine capacity no more than 300,000 kw expect the small grids in Tibet, Xinjiang and Hainan
- 2. Generating sets with its coal consumption more than 300 gram standard coal/kilowatt-hour, generating sets with its coal consumption more than 305 gram standard coal/kilowatt-hour, except the small grids in Tibet, Xinjiang and Hainan
- IV. Petroleum, Natural gas and Chemical Industry
- 1. Polyester equipment by means of DMT and with its annual yield no more than 100,000 tons
- 2. Polypropylene with its annual yield no more than 70,000 tons annually (continuous mode and intermission mode)
  - 3. Acrylonitrile sets with its annual yield no more than 100,000 tons annually
- **4.** ABS rosin sets with its annual yield no more than 100,000 tons annually (with the exception of identity continuous mode
  - 5. Ethane sets with its annual yield no more than 600,000 tons annually
- **6.** Normal and decompression oil refining sets with its annual yield no more than 8 million tons annually
- 7. Catalytic cracking unit with its annual yield no more than 500,000 tons annually; continuous reforming unit with its annual yield no more than 400,000 tons annually, hydrocracking units with its annual yield no more than 800,000 tons annually, delayed coking with its annual yield no more than 800,000 tons
  - 8. Polyethylene units with its annual yield no more than 200,000 tons
- **9.** Ethylene oxychlorination PVC units with its annual yield no more than 200,000 tons annually, calcium PVC units with its annual yield no more than 120,000 tons
- 10. Styrene unit with its annual yield no more than 200,000 tons (with the exception of dry gas ethyl benzene)
  - 11. Polystyrene units with its annual yield no more than 100,000 tons
  - 12. Extracted terephthalic acid with its annual yield no more than 225,000 tons
  - 13. Ethylene oxide/glycol units with its annual yield no more than 200,000 tons
  - 14. Caprolactam units with its annual yield no more than 100,000 tons
- 15. Ethylene acetic acid units with its annual yield no more than 200,000 tons annually, oxo process synthetic acetic acid
  - 16. Ammonia units with its annual yield no more than 1 million tons
  - 17. Joint alkali unit with its annual yield no more than 300,000 tons
- 18. Sulfphur acid units with its annual yield no more than 200,000 tons annually, sulfur-iron mine units with its annual yield no more than 100,000 tons
  - 19. Normal pressure and synthetic method nitric acid
- 20. Fertilizer items with petroleum (high-sulfur petroleum excluded) as its material
- 21. Sulphuric acid basic titanium pigment (with the exception of used acid, ferrous up to international standard and the requirement for release)
- 22. Lead chrome yellow production lines with its annual yield no more than 1,000 tons
  - 23. Ferric oxide red with its annual yield no more than 5,000 tons annually
- 24. Calcium carbide mine furnace item with its capacity less than 25,000 kv (its capacity less than 45,000 tons) and more than 25,000 which fails to reach the access standard
- 25. Electrolytic manganese dioxide with its annual yield no more than 5,000 tons

- 26. Soldium hydroxide with its annual yield less than 15,000 tons
- 27. Potassium hydroxide with its annual yield less than 20,000 tons
- 28. The production equipments with the single line 20,000 tons annually or containing calcium calcinations chromium compounds
  - 29. Mercuric chloride contact project
- **30.** Anhydrous HF production equipment with the single line less than 10,000 tons annually (with the exception of supporting, self-use and electronic high purity HF)
- 31. F22 production apparatus with the single reaction kettle less than 6,000 tons annually, and post-processing 30,000 tons (with the exception of material deep processing)
- **32.** (Cymene) organosilicon monocase production apparatus with its annual yield less than 20,000 tons
- **33.** Methane chlorination production item with its annual yield less than 80,000 tons (chloromethane items supporting organicsilicon excluded)
- **34.** Methane chlorination items with its annual yield 80,000 tons yet without supporting treatment for the sideline carbon tetrachloride
  - **35.** Bias type
  - **36.** Carriage type item (barrow type)
- **37.** High poison pesticide (methamidophos, parathion, methyl parathion, Azodrin, oxidation Roxon, isocarbophos, nbspisofenphos-methyl, CARBOFURAN, zinc phosphide, Sodium diphacinone, diphacinone ketone, Bararat Dethmor Kypfarin Prolin Ratemin, coumatetralyl, bromadiolone, Brodifacoum)
  - 38. Dicofol with DDT as raw material
  - **39.** PCP with hexachlorobenzene
  - **40.** Lindane production item
- 41. Saponin (containing water or moisture) production equipment with the annual yield 300 tons (with the exception of comprehensive utilization
- V. Information Technology
  - 1. Laser video disk player production line (VCD complete machine products)
  - 2. Simulation CRT black-and-white as well as white TV

### VI. Steel

- 1. Coke oven item without supporting dry quenching coke, cock pushing and dust collector in the steel enterprises and water-short region
  - 2. Sintering machine with its volume less than 180 squire meters
- 3. Iron making and blast furnace items such as in-phase coaldust-blowing equipment, dust collector, TRT technology, energy consumption, new water consumption with their effective volume more or less than 1,000 cubic meters which fail to reach the standard
- 4. Steel converter with its nominal volume less than 120 tons, or more than 120 tons yet failing to be equipped with supporting coal gas recycling, dust collector and energy consumption or new water consumption failure to meet the standard
- 5. Eel converter with its nominal volume less than 70 tons, or more than 70 tons yet failing to be equipped with supporting smoke gas recycling, dust collector and energy consumption or new water consumption failure to meet the standard
- **6.** Hot rolling strip steel item (special steel excluded) with its width less than 800 mm
  - 7. Hot-galvanized zinc steel plate with its annual yield less than 250,000 tons
  - 8. Colored coating sheet with its annual yield no more than 100,000 tons
- 9. Ferroalloy thermoelectricity furnace with its volume more or less than 25,000 kva which fails to meet the access demand (among the small hydropower

stations in the middle and western region and the priority poverty reduction area with rich mineral resource , the volume of single electric furnace  $\geqslant$  12,500 kva)

- 10. Chrome refractory production line
- 11. Common and high power graphite electrode production line
- 12. Ultra-high power graphite electrode production line with its diameter less than 550 mm and its annual yield less than 20,000 tons
- 13. Production line of carbon block with its annual yield less than 50,000 tons and of carbon electrode with its annual yield less than 40,000 tons
- 14. Fixed gas producer (fine coal fine coal gasification furnace excluded)
  VII. Nonferrous Metal
- 1. Exploitation and smelting of tungsten, molybdenum, tin, antimony and rare earth and antimony oxide, plumber's solder production items (with the exception of alteration items)
  - 2. Blister copper smelting items with its single annual yield 100,000 tons
- **3.** Electrolytic aluminum items (the washout self-baking production replacement items and environmental protection alteration items are excluded)
  - 4. Lead melting items with the annual single yield less than 50,000 tons
  - 5. Zinc melting items with the annual single yield less than 100,000 tons
  - 6. Magnesium melting items (comprehensive utilization items excluded)
  - 7. Secondary aluminum reverberator with its yield less than 40,000 tons
- 8. Coal-fueled reverberator items in the production of second nonferrous metal by means of
  - 9. Aluminum wet-process fluorination
- 10. Independent aluminum carbon contents with its annual yield less than 100,000 tons
  - 11. Icon rare earth crude ore soaking technique
- 12. Secondary lead project with its annual yield less than 10,000 tons
- 1. Independent cyanidation items with its daily gold concentrate treatment less than 50 tons
- 2. Independent gold processing plant with its daily processing capability less than 100 tons and without supporting mining system
- **3.** Pyrometallurgical process Item with its daily processing capability less than 50 tons
- 4. Independent heap leaching project with its annual processing capability less than 50, 000 tons (with the exception in Qinghai-Tibet Plateau)
- **5.** Mining and processing projects with its daily processing capability less than 50 tons
- **6.** Gulch gold mining project with its annual mining capability less than 200,000 cubic meters
- 7. Gold mining project in forest, farmland and river course IX. Building material
- 1. Common float sheet glass production line with its non-float and daily melting amount less than 500 tons
- 2. Architectural ceramics production line with its annual yield less than 1 million square meters
  - 3. Tunnel kiln and sanitary ceramics with its annual yield less than 500,000
- 4. Cement lime mortar, dry-process kiln, Lepol kiln, wet process kiln; grog new type dry-method cement production line with its daily yield less than 1,500 tons
- 5. Paper-faced gypsum board with its annual yield less than 20 million square meters
  - 6. Production line of asphalt felt asphalt paper, modified asphalt waterproof

roll production line with its annual yield less than 5 million square meters, asphalt composite flexible waterproof roll production line, Polyethylene polypropylene fibre combined waterproofing roll production line with the polyethylene layer thickness less than 0.5 mm

- 7. Middle-alkali glass ball production line, platinum crucible pot glass fiber production line
  - 8. Solid clay brick
- 9. Production line of gypsum (hollow) building block production line with its annual yield less than 150,000 cubic meters, production line of small concrete hollow brick with the single team yield less than 25,000 cubic meters, fixed production line of concrete floor brick with its single yield less than 150,000 cubic meters, artificial light aggregate (ceramic aggregate) production line with its annual yield 50,000 cubic meters
- 10. Aerated concrete production line with its annual yield less than 100,000 cubic meters
- 11. Coal slack, shale solid brick production line with its annual yield less than 30 billion standard bricks
- 12. Rock (mineral) wool production line with its annual yield less than 5,000 X. Medicine
  - 1. Vitamin C material items
  - 2. Penicillin bulk drug items
- 3. Disposable syringe, blood exchange transfusion set, disposable transfusion set
  - 4. Butyl rubber for medical purpose
- **5.** Various formulation and processing capability extension items applied in new medicine and technology (liquid-filling capsule excluded)
- **6.** Production capability extension projects with its material as endangered and rare plant and animal yet without large-scale plantation or breeding
  - 7. Medical products using CFCs as aerosol
  - 8. Mercury-filled glass thermometer
  - 9. Mercury-filled blood-pressure meter
  - 10. Silver amalgam tooth material

### XI. Mechanics

- 1. Arms-and-the-below-body drill jumbo manufacture item
- 2. Rock loader (vertical claw rock loader excluded)
- 3. Small mining car with its volume no more than 3 cubic meters
- 4. Winch with the diameter no more than 2.5 m
- 5. Mine winder with its diameter no more than 3.5 m
- 6. Sifter with its area no more than 40 square meters
- 7. Swirler with its diameter no more than 700 mm
- 8. Coal cutter with its power no more than 800 kw
- 9. Mine excavator with its bucket volume no more than 3.5 cubic meters
- 10. Mine mixing, concentrating and filtering equipment (with the exception of rigid type
  - 11. Agricultural carrier (tricar, low speed carrying vehicle)
- 12. Single cylinder diesel (with the exception of advanced second-generation single cylinder diesel)
  - 13. Tractor with its power no more than 50 horsepower)
- 14. Normal coal-fueled steam power plant with its power no more than 300,000 kw (with the exception of comprehensive utilization sets)
- 15. Electric wire and cable manufacture (with the exception of special extrahigh-tension cable with its power no less than 500 kv)
  - 16. Common metal cutting machine tool (with the exception of digital control

machine tool)

- 17. Common electrical discharge machine (with the exception of digital control machine tool)
- 18. Common mechanically operated press (with the exception of digital control machine tool)
  - 19. Universal shearing machine, bending machine, tube bending machine
  - 20. Universal high speed steel bit, milling cutter, saw blade, screw tap
- 21. Sinter and abrasive material such as brown aluminia, green carborundum, black silicon carbide
  - 22. Various Bonded grinding wheel with its diameter no more than 400 mm
  - 23. Artificial diamond with its diameter no more than 400 mm
  - 24. Ordinary small ball bearing
  - 25. Dry type resin insulation transformers ranging from 10 to 35 kv
  - 26. High, middle and low tension switch cabinet
  - 27. Universal electric welding rod
  - 28. Civil ordinary watt hour meter
  - 29. Common low grade standard fastener no more than 8.8 grade
  - 30. Piston dynamic compressor with its volume no more than 100 cubic meters
  - **31.** Common transport container
  - 32. Screw compressor with its volume less than 20 cubic meters
  - 33. Single stage axially split pump with its volume no more than 56 inches
- **34.** Universal low and middle pressure carbon-steel valve with its capacity no more than 10 megapascal

### XII. Shipping

- 1. Large civil ship manufacturing facilities not listed in the long plan of national shipping industry (refers to the docks and berth with its width no less than 42 meters and the docks, berth and its supporting facilities with its deadweight ton no less than 100,000 tons)
- 2. Middle and long term marine diesel engine not listed in national middle and long term plan

### XIII. Light Industry

- 1. Refrigerating box, refrigerator and refrigerating containers (ice-box) which fail to meet the requirement in the Maximum Allowable Values of the Energy Consumption and Energy Efficiency Grades for Household Refrigerators
- 2. Washing machine items which fail to meet the requirement in the Maximum Allowable Values of the Energy Consumption and Energy Efficiency Grades for Household Refrigerators
- 3. Air conditioner items which fail to meet the requirement in the Maximum Allowable Values of the Energy Consumption and Energy Efficiency Grades for Household Refrigerators
  - 4. Low grade paper and card board
  - **5.** PVC universal artificial leather production line
- **6.** Ultra-thin plastic bags (with its thickness less than 0.015mm) production line
  - 7. Tanning with its annual yield 100,000 pieces (converted to standard piece)
- 8. Single coil filament production line with its production speed less than 1,500 per hour
  - 9. Universal medium speed industrial flat bed sewing machine production line
  - 10. Universal medium speed cup seaming machine
- 11. Electronic price computer scale (its precision 1/3000 less than the maximum weight and its weight no more than 15 kg
- 12. Electronic motor truck scale (its precision less than 1/3000 less than the maximum weight and its weight no more than  $300 \,\mathrm{kg}$ )

- 13. Electronic static rail weighbridge (its precision less than 1/3000 less than the maximum weight and its weight no more than 150 kg)
- 14. Electronic dynamic rail weighbridge (its precision less than 1/3000 less than the maximum weight and its weight no more than 150 kg)
- 15. Electronic belt conveyor scale ( (its precision less than 5/3000 less than the maximum weight )
- 16. Electronic crane scale (its precision less than 1/1000 less than the maximum weight and its weight no more than 50 kg)
- 17. Spring scale ((its precision less than 1/1400 less than the maximum weight and its weight no more than 8 kg)
  - 18. Two pieces Aluminum pop-top
  - 19. Common vacuum flask glass bottle production line
  - 20. Glass bottle production line with its annual yield no more than 20,000 tons
- 21. Synthesis aliphatic alcohol (including oxo alcohols, Ziegler alcohol, excluding lipin hydrogenation alcohol)
- **22.** Sodium tripolyphosphate production line with its annual yield less than 30,000 tons
  - 23. Pasted zinc-manganese battery
  - 24. Cadmium nickel Battery
  - 25. Universal lead acid cell open
  - 26. Toothpaste with its annual yield less than 2,000 tons
  - **27.** Crude sugar
- 28. Sea salt item in the north region with its annual yield less than 1 million tons; newly built salt field in the south region; mine (well) salt item with its annual yield less than 600,000 tons; lake salt with its annual yield less than 200,000 tons
  - 29. Liquer production line
  - **30.** Alcohol production line (with the exception of ethanol items)
  - 31. Flavor essence production line by employing traditional technique
  - 32. Chemosynthesis sweeting agent such as saccharin

### XIV. Textile

1. 74-Type dyeing production line

### XV. Tobacco

1. Cigarette processing items (with the exception of alteration item)

#### XVI. Fire-fighting

- 1. Fire auto-alarm equipment
- 2. Fire extinguisher
- 3. Sodium bicarbonate powder (BC) extinguishing agent
- 4. Fire door
- **5.** Fire hose
- **6.** Fireplug (indoor, outdoor)
- 7. Common fire vehicle (can-type one, and special one) items

#### XVII. Others

- 1. Urban trunk road items with red line width (including green belt) beyond the following standards: 40 meter for small city and important towns, 55 meters for medium-sized city, and 70 meters for large cities (where the trunk road for metropolitan with its population over 2 million is required to exceed 70 meters, it shall be noticed in the whole programming)
- 2. Tourism and gathering square items for the land use exceeding the following standards: 1 hectare for small cities and important towns, 2 hectares for mediumsized hectares, 3 hectares for large cities, 5 hectares for metropolitan with its population over 2 million
  - 3. Villa-typed real estate development items

- 4. Golf course
- 5. Racecourse

## Category III. Washout

Note: The year in the bracket in the items means the time limit that the item shall be eliminated. Where the time limit for washout is 2006, it refers to the item shall be eliminated before the end of 2006, the rest follows the analog; the items with elimination plan shall be eliminated in accordance with the plan; the items without eliminating plan refers to the items that shall be eliminated in accordance with the national industrial policy or shall be eliminated immediately I. Backward Production Technique Equipment

- (i) Agriculture and Forestry
  - 1. Wet method fiberboard manufacturing technique (2006)
  - 2. Water-dripping method rosin manufacturing technique (2006)
- (ii) Coal
- 1. Coal mine constructed in the coal mine range and mine type without the approval from the relevant authority
- 2. Mine without the mine exploitation permit, safety production permit, business license, mine owner qualification certificate, coal manufacturing permit
- 3. Various mine within the range of national coal mine (within the scope determined by national coal mine exploitation registration
- 4. Coal mine with its single mine annual yield less than 30,000 tons (with the exception of ultra coal layer mine) (2007)
- 5. High sulfur mines without sulfur reduction equipment as well as qualified release (with its sulfur content more than 3%)
- 6. High culm production mine (with its culm content more than 40%) that cannot be used on the spot
  - 7. 6AM, M-2.5, PA-3coal flotation machine
  - 8. PB2, PB3, PB4coal explosion suppression high voltage switch
  - 9. PG-27 vacuum filter
  - 10. X-1 box filter press
  - 11. ZYZ, ZY3 hydraulic support
  - 12. Wooden support
  - (iii) Electric power
- 1. Normal condenser coal-fueled thermal power generation units within volume of the used single machine less than 10,000 kw within the range of large grid coverage
- 2. Small normal thermal power generation units the used single machine less than 50,000 kw
- 3. Oil-burning boiler and thermal power generation units mainly used for electricity generation (no more than 50,000kw)
  - (iv) Petroleum, national gas and chemical industry
- 1. Oil and natural gas without the approval for mining exploitation and not in line with national oil and natural gas whole development program
  - 2. Product oil production apparatus without reaching the national standard
- 3. Small oil refining facilities with its annual yield no more than 1 million tons (2005)
- 4. Vitriol-making production apparatus by sulfur iron ore with its annual yield 40, 000 tons (2005)
- **5.** Bias tyre or tyre production line with natural cotton flat chafer fabric as framework and with its annual yield no more than 500,000

- 6. Dry method granulation carbon black production apparatus with its annual yield no more than 10,000 tons
  - 7. Phosphorus yellow production line with its yield less than 1,000 tons
- 8. Calcium baking chromium compounds with its single line less than 10,000 tons (2006)
  - 9. Indigenous methods oil refining
  - 10. Mercury sodium hydroxide
  - 11. Furnace of calcium carbide and open furnace of calcium carbide
  - 12. Furnace of calcium carbide without reaching the standard for release
  - 13. Ferrous power rebuilding method
- 14. Ammonia sodium method and black cyanide technique in the production of sodium cyanide
- 15. C12H14N2C12 production technique by means of middle and high sodium method
  - 16. Package and grouting equipment for pesticide products
  - 17. Sodium hydroxide by means of graphite anode membrane system
  - 18. KDON-6000/6600 cold storage flow space division equipment
  - 19. Coating resin production technique by means of direct heating
- 20. CFCs production apparatus (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
- 21. Production technique with CTC as main material (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
- 22. All the production techniques with CTC as processing agent (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
- 23. Fluorine included polymer production technique with CFC--113 as processing agent (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
- 24. 1, 1, 1-thrichaloroethane (methyl) production apparatus for washing (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
- 25. Methyl bromide production apparatus (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
- **26.** soap element production apparatus with its annual yield less than 100 tons (2007)
- 27. Hydrochloric acid acidolysis soap element production technique and soap element production apparatus with its pollutant release failing to reach the standard (2006)
- 28. DDT content paint production technique (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
- 29. Open dicofol production technique with DDT as its raw material (it shall be eliminated in accordance with the whole requirement of national government's fulfillment of international convention)
  - (v) Steel
    - 1. Indigenous method coking plant (including improved coke oven)
- 2. Coke oven it's the height of carbonization room less than 4.3 metes (with the exception of tamping coke oven with its height no less than 3.2 meters) (2007, and 2009 in the western region)
  - 3. Earth sinter

- 4. Heat sinter
- 5. Sintering machine with its area less than 30 square metes (2005)
- 6. Blast furnace with its volume no more than 100 cubic meters
- 7. Blast furnace with its volume ranging from 100 to 200 m3 (including 200 m3.) (2005)
- **8.** Blast furnace with its volume ranging from 100 to 300 m3 (including 300 m3.) (2007)
- 9. Power frequency and medium frequency induction furnace for producing bar steel, steel ingot and continuous casting billet)
- 10. Converter with its volume no more than 10 tons (with the exception of ferroalloy converter)
- 11. Electric furnace with its volume no more than 10 tons (with the exception of mechanic mould electric furnace)
  - 12. Melting steel making
- 13. Converter with its volume ranging from 15 to 20 tons (with the exception of ferroalloy converter (2005)
- 14. Converter with its volume being 20 tons (with the exception of ferroalloy converter (2006)
- 15. Electric furnace with its volume ranging from 10 to 20 tons (with the exception of high alloy steel and mechanic mould electric converter (2005)
  - **16.** Converter with its volume being 20 tons (2006)
  - 17. Double stand rolling mill
  - 18. Horizontal wire rod mill
  - 19. Small vertical wire rod mill
  - 20. Pack-rolled thin- sheet mill
  - 21. Common steel blooming mill medium-sized rolling mill used for cogging
  - 22. Hot rolling narrow strip rolling mill
  - 23. Three-roll mill
  - 24. Hot rolling seamless tube unit with its diameter less than 76 mm
- **25.** Three-roll wire rod mill (with the exception of special steel production (2005)
  - **26.** Metallurgy grate without reaching environmental standard (2005)
- 27. Manually operated pitch coke steeping device, mixed bake of crude mineral material and solid material, natural ventilation, (manually operated vertical kiln, and down draught kiln with coal as fuel and its soot purification failing to reach the relevant standard (2005)
- 28. Mining thermoelectric furnace no more than 3,200 k half-close direct current reduction furnace no more than 3,000 kva, refining furnace no more than 33,000 kva (with the exception such special products as ferro-silicon calcium alloy, electric furnace manganese metal, alpax, calcium silicon, ferrotungsten, ferrovanadium)
  - 29. Ferroalloy mining thermoelectric furnace no more than 5,000 kva (2005)
- **30.** Steam heating mix, down-blaze bake furnace, AC graphitizing furnace, graphitizing furnace and parallel machine, graphitizing furnace with its maximum output current 50 kva (2005)
  - (vi) Non-ferrous metal
- 1. Mining project for such nationally protected minerals as tungsten, tin, stibium, ion rare earth without the approval from the relevant authority of the State Council,
- 2. Melting projects such as tungsten, tin, stibium, ion rare earth and tungsten processing (including cemented carbide) without the approval from the relevant authorities of the State Council
  - 3. Zinc melting, production and baking of zinc oxide by employing such

backward facilities as muffle, manger, horizontal can, small vertical can, and dust collection through backward , simple condensation facility

- 4. Mercury melting by employing such backward facilities as iron pot, earth kitchen, distillation resort, crucible furnace and simple condensation and dust collection facilities
- **5.** Arsenic oxide and arsenic products refining by means of such backward facilities as pit furnace, crucible furnace, simple condensation dust collection facilities
  - **6.** Self baking electrolyte tank
- 7. Closed blast furnace technique and facilities with the area of the furnace bed no more than  $1.5 \text{ m}^2$
- 8. Closed blast furnace technique and facilities with the area of the furnace bed ranging from 1.5 to  $10 \text{ m}^2$  (2006)
- 9. Closed blast furnace technique and facilities with the area of the furnace bed more than  $10~\text{m}^2~(2007)$
- 10. Electric furnace, reverberator copper melting technique and facilities (2006)
- 11. Coal gas acid-making method purification and hot concentrated acid washing technique
  - 12. "Two-man-show" non-ferrous metal rolling mill (2006)
- 13. Antimony melting by employing such backward means as pit furnace, crucible furnace and Hertz furnace
- 14. Lead melting technique and equipments by employing backward means as sintering pot, sintering pan and simply furnace
- 15. Secondary aluminum and secondary lead technique by means of crucible furnace (2005)

## (vii) Gold

- 1. Amalgamating gold refining technique
- 2. Small pool soaking, small heap soaking and small melting technique
- 3. Mining and collection items without the approval from the relevant authorities of the State Council and without gold mine mining letter of ratification

### (viii) Building Material

- ${f 1.}$  Vertical drawing sheet glass production line with no less than six machines
- 2. Sheet glass horizontal pulling technique production line and case horizontal pulling technique production line with its daily melting volume less than 100 tons
- 3. Cement mechanics vertical kiln production line with the diameter of the kiln no more than 2.2 m
  - 4. Plastic package for cement without double membranes
- 5. Low and medium grade architectural ceramics with its annual yield less than  $700,000~\text{m}^2$  and low and medium grade sanitary ceramics with its annual less than yield 200,000
- 6. Paper face plaster board production line with its annual yield less than 4 million m<sup>2</sup>
- 7. Modified asphalt waterproof roll production line with its annual yield less than 2 million  $m^2$  (2006)
- **8.** Cement dry method middle-hollow kiln with its diameter less than 2.5 meters (with the exception of those producing cement)
  - 9. Cement grinding equipment with its diameter less than 1.83 meters
  - 10. Soil cement kiln, common vertical kiln
  - 11. Sanitary ceramics, down draught kiln, holed kilns coal-fueled direct fire

tunnel kiln, sagger sanitary ceramics tunnel kiln

- 12. Friction press used for architectural ceramics
- 13. Soil lime vertical kiln
- 14. Argil crucible glass fiber drawing production technique and equipments
- 15. Such earthen kilns as annular Kilt, roofless less annular Kilt, horseshoe kiln with its amount of tilt less than 18
  - 16. Common brick extruding machine with its type lower than the 400-type
  - 17. 450 type common brick extruding machine (2006)
  - 18. SJ1580-3000 twin shaft, single shaft mixer
  - **19.** SQP400500-700500 double roll crusher
  - 20. 1000 type common bar cutter
  - 21. revolver brick press with its volume less than 100 tons
  - 22. artificial wallboard production line
  - 23. Convenient movable type block former, auxiliary vibrant shaper (2005)
- 24. Concrete brick fixed former, with its single team yield less than 10,000 m3, concrete floor brick paving former with its single team yield less than 10,000 m3
- 25. artificial placing, non-mechanically formed plaster (hollow) production technique
- 26. asphalt paper linoleum production line with its annual yield less than 1 million rolls
- 27. quartz glass production technique by means of vacuum compression method and one-step technique
  - 28. 6×600 tons hexahedron small presser producing artificial diamond
  - 29. Manual cut, streaming-and pressing-free aerated concrete production line
- **30.** non-mechanical and nonmetal exploitation without mining permit or failing to meet environmental protection and production requirement
  - (ix) . Medicine
    - 1. Manual capsule filling technique
    - 2. Cork and wax coating medicine technique
    - 3. ampoule drawing filling and sealing machine
    - 4. Tower-typed heavy distilling apparatus
    - 5. hot wind drying box without purification facilities
- 6. bulk drug production apparatus with the labor protection and disposal of waste gas, water and solids failing to reach national standard (2006)
  - (x) . Mechanics
    - 1. heat treating lead bath furnace
- 2. heat treatment barium chloride salt bath furnace (the washout of high temperature barium chloride salt bath furnace shall be deferred temporarily
  - 3. TQ60, TQ80 tower crane
  - 4. QT16, QT20, QT25 derrick convenient tower crane
  - 5. KJ1600/1220 single roll lifting machine
  - 6. universal brown alumina smelting furnace less than 3,000 kva
  - 7. Carborundum smelting furnace less than 3,000 kva
  - 8. Strong drive convenient elevator
- **9.** tobacco expansion production line with CFCs as expansion agent (it shall be eliminated in accordance with the whole requirement of international convention fulfilled the central government)
  - (xi) . Light Industry
- 1. vacuum salt making , lake salt, sea salt in the north with its annual yield no more than  $50,\ 000$  tons
- 2. salt making production apparatus by using mine salt brine, oil gas field water and by means of pan and shallow beach

- $\mathbf{3.}$  South sea salt production apparatus with its annual yield no more than  $\mathbf{10,}$   $\mathbf{000}$  tons
- 4. tanning apparatus with its annual processing amount no more than 30, 000 piece (converted to standard cow skin)
- **5.** printing ink production apparatus with its annual yield less than 300 tons (with the exception of those using high and new as well as pollution-free technology)
- **6.** Carbonic acid beverage production line with its yield less than 100 bottles per minute (its single volume is no more than 250 ml)
- 7. Chemical pulping production line with its annual yield no more than 17,000 tons
- **8.** Straw pulp production apparatus with its annual yield no more than 34,000 tons (2007)
- **9.** polyurethane foam product with CFCs as vesicant, polythene, polystyrene foamed plastic production technique (they shall be eliminated in accordance with the total requirement of international convention fulfilled by the central government)
- 10. icebox, deep freezer, automobile air conditioner, industrial and commercial production line for cold preservation, refrigeration with CFCs as vesicant or refrigerant (they shall be eliminated in accordance with the total requirement of international convention fulfilled by the central government)
- 11. production technique with CTC as detergent (they shall be eliminated in accordance with the total requirement of international convention fulfilled by the central government)
- 12. production technique with CFC-113 as detergent (they shall be eliminated in accordance with the total requirement of international convention fulfilled by the central government)
- 13. production technique with TCA as detergent (they shall be eliminated in accordance with the total requirement of international convention fulfilled by the central government)
  - 14. bicycle salt bath welding
  - 15. tin welding technique in printing iron and can-making industry
  - 16. Match stick arranging and discharging production technique
  - 17. Match stick settler, arranger and discharger
  - 18. punching nail machine
  - 19. Strike wire braiding machine
  - (xii) . Textile
    - 1. Spinning frame produced by the founding of the People's Republic of China
    - 2. all the I-typed spinning frame
    - 3. A512, A513 series spinning frame produced before 1979
    - 4. B581, B582 fine spinning frame
    - 5. BC581, BC582 coarse spinning frame
    - **6.** B591 wool spinning frame
    - 7. wool spinning frame with its lifetime more than 20 years
    - **8.** B601, B601A wool twisting machine
- 9. Cotton roller gin with the length of its roller more than 1,000 mm (with the exception of long lint cotton processing)
  - 10. Saw tooth cotton gin with the length of its saw blade less than mm
- 11. Cotton bailing press with the amount of its pressure below 200 tons (with the exception of short-staple cotton press with amount of its pressure 160 tons)
  - 12. 1332SD bobbin winder
  - 13. BC272, BC272B strip combing machine
  - 14. B701A wool roller

- **15.** B311C, B311C(CZ), B311C(DJ) combing machine
- **16.** 1511M-105 loom
- 17. K251, K251A silk loom
- 18. Z114 small jacquard
- 19. GE186 patternpile loop machine
- 20. Z261 man-made fur weaving machine
- 21. LMH551 plate scream printing machine
- 22. LMH57 circular screen printer
- 23. LMH303, 303B, 304, 304B-160 dyeing machine hot melt
- 24. LMH731-160 hot flue clip stenter
- 25. LMH722M-180, LMH722D-180 short loop drying and heat setting range
- 26. ZD647, ZD721 automatic silk reeling machine
- 27. D101A automatic silk reeling machine
- 28. ZD681 reeling machine
- 29. DJ561 thick silk spinning frame

### (xiii) Printing

- 1. Entire letter typing technique
- 2. Entire letter printing
- 3. ZD201, ZD301 type single-letter casting machine
- 4. TH1 automatic slug-casting machine.
- 5. ZT102 slug-casting machine
- 6. ZDK101 matrix cutting machine
- 7. KMD101 lead mould stylus holder grinding machine
- 8. AZP502 semi transfer Chinese lhand sorting composing machine
- 9. ZSY101 semi transfer Chinese composing machine
- 10. TZP101 foreign language composing machine
- 11. ZZP101 Chinese automatic composing machine
- 12. QY401, 2QY404 electric letter printing proofing machine
- 13. QYSH401, 2QY401, DY401 manual letter printing proofing machine
- 14. YX01, YX02, YX03 hydraulic matrix molding
- 15. HX01, HX02, HX03, HX04 matrix dryer
- 16. PZB40 flat stereotype casting machine
- 17. JB01 flat stereotyping machine
- 18. YZB02, YZB03, YZB04, YZB05, YZB06, YZB07 stereotyping machine
- 19. RQ02, RQ03, RQ04 lead pump molten furnace
- **20.** BB01 molding plane
- 21. YGB02, YGB03, YGB04, YGB05 circularity stereotyping machine
- 22. YTB01 circularity cliché machine
- 23. YJB02 stereotyping sawing machine
- 24. YXB04, YXB05, YXB302 stereotyping retouching machine
- 25. P401, P402 quarto platen press
- 26. P801, P802, P803, P804 octavo platen press
- 27. PE802 double page printer
- 28. TE102, TE105, TE108 sheet-fed two-revolution press
- 29. TY201 mono-color folio- cylinder printer
- 30. TY401 quarto mono-color- cylinder printer
- 30. TY401 quarto mono-color- cylinder printer
- 31. TY4201 quarto- cylinder double color printer
- 32. TT201, TZ201, DT20 bisect automatic-manual revolution flat press
- 33. TT202 bisect automatic-manual revolution flat press
- 34. TZ202 bisect automatic-manual revolution flat press
- **35.** TZ401, TZS401, DT401 quarto manual revolution flat press
- 36. TT402, TT403, TT405, DT402 quarto manual revolution flat press

- 37. TR801 vertical flat-bed print
- 38. LP1101, LP1103 plat single page rotary press
- **39.** LP1201 plat double page rotary press
- **40.** LP4201 plat quarto double color rotary press
- 41. LSB201 (880×1230mm) and LS201, LS204 (787×1092mm) reel paper rotary press
- 42. LB203, LB205, LB403 ) reel paper web-fed gravure rotary press
- **43.** LB2405, LB4405 reel paper double layer web-fed gravure rotary press
- 44. LBS201 web-fed gravure rotary press for book as well as newspaper usage
- 45. K. M. T automatic metal type composition machine
- **46.** PH-5 Chinese character typesetter
- 47. Cronapress proving press plate making (DIA PRESS cleaner)
- 48. Domestic-made press camera produced before 1985
- 49. Manual press camera produced before 1985
- **50.** Centrifuge casting machine
- **51.** J1101 full page single-color offset machine (with the printing speed no more than 4,000 pages per hour)
- **52.** J2101, PZ1920 bisect single-color offset machine (with the printing speed no more than 4,000 pages per hour)
- 53. PZ1615 quarto single-color offset machine (with the printing speed no more than 4,000 pages per hour)
- **54.** YPS1920 double face single-color offset machine (with the printing speed no more than 4,000 pages per hour)
  - **55.** W1101 full page automatic photogravure
  - 56. AJ401 web single page four color gravure press
  - **57.** DJ01 level loading gluing linkage machine
  - 58. PRD-01, PRD-02 level loading gluing linkage machine
  - **59.** DBT-01 level loading tread staple-package-ironing linkage machine
  - **60.** Solvent painting and coating machine
  - **61.** QZ101, QZ201, QZ301, QZ401 paper cutter
  - **62.** MD103A knife grinder
  - (xiv) Fire-control
- 1. Fire detector manual socket welding electronic parts and components XV. Others
- 1. Cyanogens content galvanization technique (the elimination technique of the rendering technique for galvanized gold, silver, copper base alloy and copper plating shall be delayed temporarily)
  - 2. Cyanogens content zinc technique
- II. Backward Products
  - (i) Petroleum, Natural Gas and Chemical Industry
    - 1. Polychlorinated biphenyl (pesticide)
    - 2. Nitrofen (pesticide)
    - 3. Insect disinfestations (pesticide)
    - 4. Chlordane (pesticide)
    - 5. Heptachlor (pesticide)
    - 6. Tetramethylene Disulfotetramine (pesticide)
    - 7. Fluoroacetamide (pesticide)
    - 8. Sodium fluoroacetate (pesticide)
    - 9. Dibromochloropropane (pesticide)
    - 10. TETRAETHYL DITHIOPYROPHOSPHATE (SULFOTEPP) (pesticide)
    - 11. Dimecron (pesticide)
    - 12. Gliftor, 1-(p-chloropenyl)-2, 8, 9-trioxo-5-nitrigen-1-silicon-dicyclo(3,
- 3, 3) undencane (pesticide)
  - **13.** 107 coating

- 14. Modified starch coating
- 15. Differential fiber coating
- 16. Water based coating used for indoor decoration (including used for building and wooden appliance) where the volatile organic substance exceeds 200 gram per liter or dissociate formaldehyde exceeds 0.1 mg/kg
- 17. Indoor decoration (including used for building and wooden appliance) where the dissoluble lead exceeds 90 mg/kg or dissociate formaldehyde exceeds 0.1 mg/kg, or cadmium exceeds 75 mg/kg or mercury exceeds 60 mg/kg
- 18. Indoor decoration dissolvent wooden appliance coating where the content of volatile organic substance exceeds 700 mg/ liter or the content of dissociate cyanic acid ester exceeds 0.7%
- 19. Polyvinyl alcohol soluble glass interior wall coating (106 interior wall coating)
- 20. Multicolor interior wall coating (the largest share in ester is gun cotton; the solvent is 0/W coating, where the most share is xylene)
  - 21. Chloroethylene- PVDC exterior wall coating material
  - 22. Tar-type polyurethane waterproof coating
  - 23. Water-based PVS tar waterproof coating
  - 24. Polyvinyl alcohol and its acetal interior and exterior wall coating
- 25. Poly acetic acid ethylene latex exterior wall coating (including EVA latex)
  - **26.** PVS architectural waterproof seaming material (tar)
  - 27. Benzidine and zenzidine azo dye
  - 28. Soft-margin bicycle tyre
- 29. DDT (it shall be eliminated in accordance with the whole requirement of international conventional fulfilled by the central government)
- **30.** Hexachlorobenzene (it shall be eliminated in accordance with the whole requirement of international conventional fulfilled by the central government)
- 31. Dechlorane mirex (it shall be eliminated in accordance with the whole requirement of international conventional fulfilled by the central government)
  - (ii) Railway
    - 1. C50 flat car
    - 2. P50 boxcar
    - 3. N60 flat wagon
    - 4. G50 light tank truck
    - **5.** Dongfeng 1, 2, and 3 type diesel locomotive
  - (iii) Steel
- 1. Bar steel produced ,steel ingot or continuous casting billet by power frequency furnace and middle frequency furnace as well as the refined products hereby
  - 2. Hot rolling silicon steel sheet
  - 3. 25A hollow steel window
  - 4. I grade deformed bar (2005)
  - (iv) Nonferrous Metal
    - 1. Copper rod (black rod)
  - (v) Building Material
- 1. GRC hollow slat produced by using non-alkali fiber or non-low-alkali cement
  - 2. Pot clay drawing fiberous glass reinforced plastic
  - 3. 25A hollow steel window
  - 3. S-2 concreted tie
  - 5. Urinal with the single amount of wash water more than 9 liter
  - **6.** Hornblende amphibole asbestos (i.e. ACM)

- 7. Common double pane and single chamber structured plastic windows and doors and
- 8. Polyethylene compound waterproof roll, cotton glass fiber grid (high alkali) compounded tyre,

PVC waterproof roll(S type)

- (vi) Medicine
  - 1. Lead and tin ointment tube
  - 2. Ampoule used for injection solution package
- 3. Natural rubber plug for , medical use (of the injection: penicillin for injection (sodium salt, sylvite ) basic transfusion sets shall be eliminated immediately, the time limit for other large volume injection shall be the end of 2005)
  - 4. Straight neck ampoule
  - (vii) Mechanics
    - 1. T100, T100A bulldozer
    - 2. ZP-II, ZP-III dry type concrete injector
    - **3.** WP-3 excavator
    - 4. Fluid power rock grab with the volume less than 0.35 m<sup>3</sup>
    - 5. Chum
    - **6.** Y-40 oil rig
    - 7. Water-gas set with its diameter being 1.98 meter
    - 8. CER bellows
    - 9. Thermocouple (its grade divisions are LL-2, LB-3, EU-2, EA-2, CK)
    - 10. Resistance thermometer sensor (its grade divisions are BA, BA2, G) di.gov.cn
    - 11. DDZ-I electronic control system operating signal
    - 12. GGP-01A belt weighter
    - **13.** BLR-31 load sell
    - 14. WFT-081 radiation pyrometer
    - 15. WDH-1E, WDH-2E photoelectric transmission meter
    - 16. BC series differential pressure gauge with single wave
- **17.** LCH-511, YCH-311, LCH-211, YCH-211, LCH-311, YCH-511 ring-type differential pressure gauge
  - 18. EWC-01A strip-chart electronic potentiometer
  - 19. PY5 digital thermometer
  - 20. XQWA bar-style self-balancing indicator
  - 21. ZL3 type X-Y recorder
  - 22. DBU-521, DBU-521C liquid level transmitter
  - 23. J02, J03 small asynchronous motor
  - 24. JD02, JD03 variable speed three-phase asynchronous motors
- 25. YB explosion-safe three-phase asynchronous motors (frame number: 63— 355mm; voltage: no more than 660v)
  - 26. DZ10 series moulded case circuit-breaker
  - 27. DW10 series frame breaker
  - 28. CJ8 series AC contactor
  - 29. QC10, QC12, QC8 series starter
  - **30.** JRO, JR9, JR14, JR15, JR16-A, B, C, D series thermo relay
  - 31. Motor drive rotary DC arc welder whole series
  - 32. Medium frequency coreless induction melting furnace in GGW series
  - 33. B type BA type series single-stage single-suction centrifugal pump
  - **34.** F type single stage corrosion-resistant pump series
  - **35.** GC type low pressure boiler feed pump
  - **36.** JD type major axis deep well pump
  - 37. KDON-3200/3200 cold storage low pressure flow air-separation equipment

- $38.\ \mbox{KDON-}1500/1500$  cold storage (tube type) low pressure flow air-separation equipment
  - 39. KDON-1500/1500 tube plate low pressure flow air-separation equipment
  - **40.** 3W-0.9/7 (ring valve) air compressor
  - **41.** C620, CA630 common lathe
  - 42. X920 key seat milling machine
  - **43.** B665, B665A, B665-1 shaping machine
  - 44. D6165 EDM shaping machine
  - 45. D6185 EDM shaping machine
  - **46.** D5540 electrical impulses
  - **47.** J53-400 double disk friction press
  - 48. J53-630 double disk friction press
  - 49. J53-630 double disk friction press
  - **50.** Q11-1.6 $\times$ 1600 guillotine shears
  - 51. Q51 crane truck
  - **52.** TD62 fixed belt conveyer
- **53.** Underground milling electric locomotives with the 3 ton direct current elevated line
  - **54.** A571 single-beam crane
  - 55. 4146 diesel machine
- **56.** High speed circuit breaker: DS3-10, DS3-30, DS3-50(1000, 3000, 5000A), DS10-10, DS10-20, DS10-30(1000, 2000, 3000A)
  - **57.** BX1-135, BX2-500 AC arc welder
  - 58. AX1-500, AP-1000 direct current arc welding motor generator
  - **59.** SX series box-type resistance furnace chamber
- **60.** Single-phase watt-hour meter: DD1, DD5, DD5-2, DD5-6, DD9, DD10, DD12, DD14, DD15, DD17, DD20, DD28
  - **61.** SL7-30/10 SL7-1600/10, S7-30/10 S7-1600/10 distribution transformer
  - **62.** Knife switch: HD6, HD3-100, HD3-200, HD3-400, HD3-600, HD3-1000, HD3-1500
  - **63.** Boiler-feed pump: DG270-140, DG500-140, DG375-185
- **64.** Thermo power steam trap: S15H-16, S19-16, S19-16C, S49H-16, S49-16C, S19H-40, S49H-40, S19H-64, S49H-64
- **65.** Vertical hose fixed fire grate boiler (double deck fixed fire grate boiler excluded)
  - **66.** Dynamic reciprocating compressor: 1-10/8, 1-10/7 type
  - 67. High pressure centrifugal ventilator: 8-18 and 9-27 series
  - **68.** X52, X62W 320×150 elevating stage milling machine
  - **69.** J31-250 mechanically operated press
  - 70. TD60, TD72 fixed belt conveyer
- 71. Agriculturally carrier (in production and in sale) with single cylinder diesel as power which is not fixed with fuel limiter (referring simply to oil limiter)
- 72. E135doulble stroke medium speed diesel engine (including such three types of cylinders as2, 4, 6)
- 73. TY1100 type single cylinder vertical water cooling spraying diesel machine
- 74. 165 single cylinder horizontal water evaporation cooling and mixing chamber diesel machine
  - 75. Illegally altered vehicles and their life time has finished
  - (viii) Light Industrial Products
- 1. Mercury battery (mercuric oxide galvanic cell and battery and zinc mercuric oxide cell)
  - 2. Disposable foamed plastic dishware

- 3. Direct release gas water heater
- 4. Potassium dichromate content match
- 5. Spiral lifting (cast iron) water exit
- 6. Aniline ink used for gravure
- 7. Water intake lower than the overflow outlet and upward urinal water tank fittings
  - 8. Cast iron break valve
  - (ix) Textile
    - 1. H112, H112A sectional warper
    - 2. B751 wool ball forming mill
    - 3. 1332 series bobbin winder
  - (x) Fire Fighting
    - 1. Difluorochlobromomethane (referring simply to twelve eleven) (2005)
    - 2. Bromotrifluoromethane (referring simply to thirteen 0 one) (2010)
    - 3. Convenient fire extinguisher
    - **4.** Portable type fire extinguisher (2005)
    - **5.** Cart type 1211 fire extinguisher (2005)
    - 6. Portable type chemical foam fire extinguisher
    - 7. Portable type alkali acid fire extinguisher
  - (xi) Others
    - 1.59, 69, 72, TF-3 type gas mask

